THE LAWS OF HEALTH.

Health is the normal condition of man. Remove the cause and the effect will cease.

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Invigoration through Circulation.

BY ROBT. WALTER, M. D.

The New Practice No. 3. We have seen the necessity of good digestion and efficient breathing in order to good health, and to this end the importance of a perfect development of the digestive and respiratory systems; and the question at once recurs how best to obtain that development? We might also show the importance of active, vigorous, highly vitalized liver, skin, kidneys, and indeed all other organs of the body; but choose rather to explain more fully how to obtain that development of organ which secures vigorous function.

Life is dependent upon organization, and organization is a process of growth or nutrition. With perfect nutrition we have perfect organs, perfect functions and perfect health; because the one is dependent upon and grows out of the other. Whatever process, therefore, will secure good nutrition, will secure good health and all its glorious results.

All nutrition takes place in and because of the circulation. And not only nutrition, but secretion and excretion, indeed all functions of life are absolutely dependent upon it for their performance. Circulation is, therefore, *par excellence*, the most important function of organic life Without circulation there could have been no lungs to breathe, or stomach to digest, or organ to excrete or secrete. It is the first operation of life and it is the last; with it existence commences and life ends. We may retain life for an indefinite period without breathing, for a much longer period without digestion, but without circulation life cannot exist for a moment.

Circulation is the great process of transportation, by which new material is carried to the remotest points for the process of building up, and by which old material, or other matters that cannot be used, are carried back and out. By it the digested food is brought in contact with the air breathed; and by it both together, or rather the blood resulting therefrom, is carried forward to the needy points through arteries and capillaries, and on return the worn-out materials—the rubbish—the impurities are carried back to lungs, liver, kidneys, skin, to be cast out.

The channels of circulation, arteries, capillaries, veins, are properly compared to the channels of trade, the rivers, canals, lakes of a country. And as trade is the great element of wealth, of prosperity, of power to a people, and ease of transportation the great means by which trade is facilitated; so nutrition is the great means by which is developed vigor, strength, endurance, health; and circulation is the means by which nutrition is carried on. Ease of circulation, therefore, is important just to the extent that perfection of nutrition is important, and both together are as important as life and health.

But circulation is the most complex as well as the most important of all organic functions, and hence the most likely to become deranged. Both the quality and quantity of blood circulated have much to do in affecting circulation. Too much in quantity is as bad as too little, and the stuffing processes of the present day are only less destructive than the bleeding and purging of the past. Blood is the material out of which structure is built, but excess of it obstructs the process of building. Too little blood on the other hand neither furnishes the material out of which nutrition can come, nor does it furnish the requisite "stimulus" to induce the process. Excess of blood in a part means congestion of that part, while deficiency is depletion; and both exist in most, if not all cases. When there is excess of blood in one part, there is deficiency in another, and vice versa; and hence unbalanced circulation is an ever-present condition in all diseases. Balanced, equalized, perfect circulation means perfect health; while disease represents the opposite condition.

But circulation is affected by quality of blood even more than by quantity. Blood, poor in quality, will not sustain the force requisite to good circulation; but nevertheless, more derangement comes from a stimulated, highly carbonized, irritated condition, than from the poverty-stricken condition. The inflammatory state of the blood so common among those addicted to what they call "high living" is not a desirable condition; and the habits of eating and drinking which produce it are not to be commended. To excite brain and nervous system by the use of tea, coffee, tobacco, alcoholic liquors; by spices, as well as animal food in excessive degree, is to produce congestion of those parts, often ending in nervous debilities, dyspepsia, sleeplessness, paralysis, sunstroke, apoplexy, softening of brain, insanity, &c.

The quality of a man's blood, and consequently of his circulation, is dependent therefore in a wonderful degree, on his habits of eating, drinking, breathing, &c., and as out of bad habits disease is known to originate, we have another connecting link between disease on the one hand and bad circulation on the other.

But we have another fact of importance to state, viz.: That the process of circulation requires for its performance a larger degree of vital power than does any other single function of the animal organization. Indeed it may be questioned whether or not it requires a sum total of expenditure equal or greater than all other functions combined. Hence how it is wonderfully affected by any depreciation of vital vigor, by exhaustion of vital force; so that again we perceive the connection between disease and imperfect circulation. Indeed it is evident that as life begins with circulation and ends with its cessation, so disease commences with deranged circulation and ends whenever it is fully restored, and hence how to produce and maintain a healthy, equable circulation of the blood is really *the* important question of medical therapeutics. Indeed all scientific medication resolves itself into this question—how to improve the circulation. This necessitates a knowledge of *How* the blood circulates, which will be the subject of our next.

Scrofula.—No. 13.

BY J. A. TENNEY, M. D.

There are many diseases which originate in the scrofulous condition, but those most generally recognized by physicians as arising from the scrofulous diathesis are the different forms of tuberculosis, or the presence of tubercles in the lungs, liver, mesenteric glands, and other parts of the body. But there can be no doubt that many other diseases grow out of the scrofulous tendency besides the peculiar condition known as tuberculosis; and among the most prominent forms may be mentioned the skin diseases known as running scall, scabby scall, and lupus,—which is a variety of skin cancer, and the diseases of the deeper tissues, as catarrh, ulceration of the ear, inflammation of the lining of the eyelid or conjunctivitis, ulceration of the cornea or eyeball, white swellings, caries of the bones, bronchitis, and chronic inflammation of the intestinal membranes.

RUNNING SCALL,

or *eczema*, as it is called in the books, usually commences with patches of minute vesicles, which show themselves at first like little white glistening points. These enlarge, until they finally become about the size of a pin's head. In bad cases the vesicles burst and a serous fluid escapes, which poisons the skin, and so enlarges the affected surface. In the chronic form of the disease, the vesicles reappear after the old ones are dried up, and all the different stages of the disease may be present upon different parts of

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the body at the same time. These stages are, the formation of vesicles, the serous exudation, the excoriation of the surface, then the formation of scabs or scales, and finally loosening of the cuticle, appearing like a blistered surface. The burning and itching which go with this disease are of the most tormenting character, and the difficulty often remains to torture the patient for months or years.

The eruption may occur upon any part of the body, but it is most liable to appear upon the head. Sometimes, though rarely, it spreads over the whole surface. When it affects the hairy scalp, it may be either partial or general. If the disease is of long standing and of great severity, the hair dies and falls out from the part affected.

Scabby Scall

commences with vesicles, but afterwards assumes a pustular form. The liquid in the pustules becomes opaque and of a yellowish color. This secretion dries upon the surface and forms hideous scabs which may cover the whole part affected. This variety of the disease may affect any part of the body, but it is most liable to appear on the head or face. It often comes upon the face of infants, and is in such cases a very troublesome affection, it being necessary to tie the child's hands to prevent its scratching off the scabs, and so producing permanent deformity.

Lupus,

in its milder form, is a superficial ulceration of the skin, commencing generally as a hard, white, shining tubercle, or as a crack or excoriation, which spreads in width, but not generally in depth. A scab usually forms, which after a time disappears, only to be followed by another of the same kind. In the worst form of the disease, sometimes called *devouring lupus*, the ulceration goes on with frightful rapidity, extending to the deeper structures, consuming the nose, one cheek, the lip, or it may be the orbit of the eye. The pain is of a sharp, biting, or shooting character, and varies with atmospheric changes, or any unusual exposure of the patient. If it cannot be arrested, the patient may die in a few months; or it may linger for years, and the constitution become worn out by the pain and prostration of the nervous system.

The treatment of running scall should be mainly constitutional, although local appliances are a great comfort to the patient, and in this way they hasten recovery. The diet should be as soothing as possible, consisting of plain, unseasoned foods, which should be composed chiefly of vegetables, grains and fruits. A little meat may be added once a day, except in the warmest weather. Salt, sugar, spices, fine flour, pork fat, and everything irritating in the way of food should be carefully avoided. The patient should live as much as possible in the open air, and pay the greatest attention to ventilation at night. General baths at a temperature a little below that of the body should be taken twice a week, and such movements should be regularly taken as will cause the blood to be equally distributed to all parts of the body. Taylor's Movement-Cure should be studied and practiced by every one who is subject to such diseases, and such a course of them should be pursued as to divert the blood from the nervous centers and cause it to flow to the extremities. Movements are far better than any other form of exercise, for most kinds of manual labor exercise one part of the body to the expense of another.

In the case of infants, the mother's condition should be carefully investigated, if she is nursing the child; and if she is not well, as is usually the case, the child should be fed upon cow's milk diluted with water. It should be kept out of doors as much as possible, and care should be taken that it should not be fed too much. For local treatment in this, as well as the other variety of this disease, the best poultice is made of ground slippery elm bark and water. The application of glycerin will often subdue the itching and so soothe the inflammation, and also painting the surface with a mixture of collodion and sweet oil, as directed in another article under the head of burns and scalds, will often soothe an ulcerated surface more than any other application.

The same treatment applies to the disease called lupus in its milder form. The worst variety of this disease should be treated in all respects like cancer. The corroding virus of the ulcer must be destroyed by Vienna paste, or some other efficient caustic; but this should not be attempted except by those skilled in its use. After the application of caustic, the parts should be poulticed, and every means employed to promote healthy granulations in the ulcerated surfaces. But in this disease. as in all scrofulous affections, unless the constitutional vigor can be renewed, the difficulty will progress in spite of all local applications. All these forms of scrofulous disease may usually be overcome in time, except the worst forms of lupus; and in the worst cases no one should despair or give up trying to save the patient until it is clear that the difficulty cannot be remedied. It is a mistake to suppose that hereditary affections are necessarily incurable; for as they are frequently produced in a single generation, so they are often so far removed in a similar period of time, as to render the person afflicted to be free from the liability to transmit the same tendency to posterity.

Knowledge is power; and on no subject more truly so than on that of human health. Read "Every Day Testimony" on page 6 and decide if The Laws of Health teaches important truth.

Ventilation of the Lungs.

Pure air is one of the necessaries of health and contined life, and how to obtain it is a problem worthy of most careful consideration. It is well known that numerous diseases are the result of breathing impure air, and of late the subject of ventilation has attracted considerable attention. It has been discovered that the dwellings in which we live are seldom fully ventilated, and various means are recommended to obviate the difficulty, and yet the science of house-ventilation is still in its infancy.

But I am about to speak of a ventilation quite as important as any that has ever been investigated; I mean ventilation of the lungs. The lungs are reservoirs, holding several quarts of air, which is being constantly contaminated by the throwing into it of carbonic acid from the blood, and hence, in order to keep up a reasonable degree of purity, thorough and complete interchange between that which is in the lungs and that without them, must be had. Breathing is therefore a process of lung ventilation, and in order to health, it is absolutely necessary that the process shall be carried on efficiently. It is not sufficient that a man goes through a semblance of respiration; he must inhale and exhale a sufficient quantity every three or four seconds to keep the air in the lungs sufficiently pure. It is now conceded that lung diseases are the result of impure air; but it does not follow that the patients have lived in unventilated houses or unhealthy districts. Failing to breathe efficiently is always ample cause for this condition. Breathing consists of exhalation as well as inhalation, and the one is quite as important as the other. We may have the largest lungs, but if these lungs are not moved upon so as to crowd air out, as well as to take it in, impurity will result, the blood becomes foul, and consumption and other diseases may follow. In our eagerness to get frequent change of air in our dwellings, let us not forget the necessity of having frequent change in our lungs; and in studying the science of house-ventilation, let us not neglect the art of vigorous breathing. Breathing is almost wholly a muscular process, and will be efficient or feeble in exact ratio to the vigor or feebleness of the respiratory muscles. If the muscles of the chest, the diaphragm and the abdomen are inactive, we will suffer from impure air, no matter how well ventilated our dwellings are, just as truly as if we shut ourselves in an air-tight room. Did you ever think of these things, my hygienic friend? I assure you that if many of us spent half as much labor in developing our breathing capacities as we do in ventilating our dwellings, we would have better health; for pure air and abundance of it, through continual and frequent change, is necessary to be had internally as well as externally.

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No Cure No Pay.

At first sight this plan seems reasonable and honorable. Why should a physician, who fails to cure a patient, ask to be paid for his failure? Nevertheless, while the proposition has often been made to us, we have as often declined; because, in the first place, the spirit in which it is made is a complete barrier to any cure. Such a proposition implies the existence of doubt not only, but tends to preserve it in the mind, and with doubt as an ever present condition, cure is utterly impossible. What would you think of a man who went to a minister and said: "If you will save me I will join your church." Would that minister agree to save him? Would he admit him to his church as a member? And yet he stands in the precise relation to that man that a physician does to a similarly disposed patient. The minister would say, "I would be glad to have you come to my services; I will try to teach you the way of salvation, and give you the opportunities whereby you may be saved; but whether you will be saved or not depends after all upon yourself. You may come to this church and attend all its services, and be none the better therefor. Indeed, my dear friend, may I tell you that the very spirit which makes this proposition is of itself all that is needed to exclude you from the terms of salvation." I have to say to the patient the very same when he makes the proposition to me. When he says, "If you will cure me, I will gladly pay you so and so," I have to say, "My dear fellow, that very proposition, if adhered to, would prevent your recovery, in spite of anything I can do. As long as you doubt, and hesitate, and disbelieve, so long will the inspiriting influences of this Institution fail to reach your case. Our diet, and baths, and movements, might as well be applied to a dead dog as to a man whose heart is stone—whose soul is far away in other Homes. We believe that the principles taught here will operate to the cure of any man who is not beyond the possibility of cure; but these principles include the phases of the mind as well as of the body, and this explains much of the difference in results often found in different patients. Occasionally some one comes to us seriously diseased, but having been sent by some one who has himself been cured and given glowing accounts thereof, comes in full faith of having reached the Mecca of health. The results are astonishing. The symptoms disappear as by magic. Occasionally, symptoms which have seriously troubled patients for months suddenly disappear after entering the House, never to vex them again. In others they are greatly lessened, gradually disappearing, until a prompt and decisive cure has been obtained.

But once in a while a patient comes along looking into every corner, peeping into every key-hole, doubting both the principles of the system and the integrity of the physicians, trying to discover a screw loose somewhere, occasionally thinking he has hit upon a nest of evil; and yet he stays and takes his treatment with precision and energy, determined to get all out of it that there is in it, but all the time wondering if it is not a hoax. Week after week, and month after month, perhaps he remains, slowly improving, sometimes failing, until perhaps, after he has listened to our teachings for weeks, he wakes up to the great fact that he himself is an important factor in the process of cure, and that, how he thinks, feels and believes will have as much to do in curing him as anything else. If he comes to a realization of this matter, we have saved him, and health follows. But if he steadily, persistently, and with mulish stubbornness maintains his own misanthropic views, encourages his doubts, believes that creation is a humbug, and the world a failure, he will be likely to continue to seek medical advice without finding health. We repeat it, we never undertake positively to cure any one. We do undertake, however, to show men the way to health, and offer them the principles and plans which may carry them to the longed-for goal; but they can go the other way if they will.

Piles.

By J. A. Tennet, M. D.

The most common form of this disease is called the external pile, and consists of small tumors situated just outside the extremity of the alimentary canal. These tumors are covered partly by skin, and partly by mucous membrane, and are caused by the bursting of the hemorrhoidal veins. There may be only one of these tumors, or there may be three or four, or even more, although it is rare for more than two or three to be present at once. They range in size from that of a pea to that of a pigeon's egg, and are usually extremely sensitive, giving a feeling of weight, distention, and throbbing, which is greatly increased by walking or even the erect posture. If the complaint is aggravated, the inflammation may increase until abscesses are formed, and a fistula may result.

Another variety of the same disease is confined within the rectum. It consists of tumors like external piles. These are distended with blood, and when pressed by the hardened feces, the enfeebled coverings of the tumors are ruptured and bleeding occurs. If the tumors are not large or numerous, there is not much pain attending them; but if they are, there is often severe pain and throbbing, a bearing down sensation, spasm of the muscles in the vicinity, and prolapsus of the bowel. In such cases it becomes one of the most distressing diseases; and yet, unless there is constant hemorrhage, the general health is not very greatly impaired by the suffering connected with it.

The disease is caused by whatever distends the veins in this region; as habitual constipation, tight lacing, sexual excesses, too constant and severe horseback riding, etc. It affects grown up persons more than the young, though the latter are by no means free from liability to it. It has been known to affect children less than four years of age.

The proper remedies are wholesome food, and such measures as will relieve constipation. Surgery offers little permanent help in this disease. Years ago I operated upon external piles both by cutting and by ligature, but was led to abandon the practice, for such operations seem to make the affection more liable to recur than if relieved by milder means. Surgery is only called for in the extremest and most neglected cases. The diet should be as plain as possible, and should consist of oatmeal mush, Graham bread, fruits, vegetables, and a little meat once a day. Fine flour, sugar, milk, butter and spices should be discarded from the dietary. The bowels should not be allowed to move without an injection of warm water beforehand, at a temperature of 100 degrees. This relaxes the parts, softens the feces, and very soon brings a wonderful degree of comfort to the patient. The bowels should have thorough kneading and percussion every day by an attendant, and if the occupation of the individual is sedentary, at least half an hour a day should be devoted to movements; but such an occupation should be changed if possible. The best time for evacuating the bowels is just before going to bed. After the bowels are relieved, a small injection of tepid water should be taken and retained. The quantity of water used should not exceed a teacupful. If the pain or itching is severe after defecation, the retained injection and the recumbent position will so relieve the difficulty that the patient will be enabled to go to sleep, and so the cure will progress rapidly; for the irritation is greatest after an evacuation of the bowels. If this plan is followed carefully, very few cases would demand any surgical interference.

The Vaccination Enquirer.

We commend to the attention of our readers the new Sanitary Journal advertised on our last page. It is devoted to the discussion of a subject which very much needs elucidation. The Vaccination Acts of England are excessively oppressive, even more so than in this country, and the whole subject is but the outgrowth of the medical reasoning to which Dr. Chapman refers, as quoted on our fourth page. We can see why a man should not be willing to have his children poisoned to the death, to satisfy the whims of a medical superstition, and are heartily in sympathy with *The Vaccination Enquirer*, and shall take opportunity at some future time to express ourselves quite fully on this subject of vaccination. *The Vaccination Enquirer* may be clubbed with The Laws of Healhh at $1.00 per year for both.

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The Laws of Health.

Monthly, 50 Cents a Year.

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☞All communications should be addressed to Wernersville, near Reading, Pa., the residence of the editor.

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OUR PLATFORM.

1. The vital power in the organism is the only healing power.

2. The rapidity and the certainty of cure depend as much upon the degree of vitality—the amount and quality of the vital force—as upon the distribution of it.

3. The symptoms may be changed and the disease often cured by reducing the quality or degree of this force, on the one hand, or by increasing it on the other.

4. Bleeding, purging stimulating, and all drug processes, as also the Water and Diet cures, as usually employed, cure on the former plan.—the plan of depleting the system.

5. The Nutritive-cure, on the other hand, cures only by building up, invigorating, and purifying the organism.

6. The true way to cure invalids therefore, is to distribute the vital force to its appropriate channels by means which shall increase, but never reduce the vital vigor.

7. This is done by the use of normal health agencies, which while equalizing the circulation, in which all nutrition takes place increases the production or manufacture of vitality, and reduces expenditure.

8. The breathing, digestive and circulatory systems comprise the organs of manufacture: while the brain, and nervous systems comprise the organs of expenditure.

9. The organs of manufacture are largely muscular, and depend for the performance of their functions on muscular contraction and relaxation: while

10. The organs of expenditure are mostly nervous, and depletion corresponds to the excitability and activity of the nervous systems.

11. All processes are to be employed to invigorate the muscular systems, special and general, while at the same time they tranquilize the brain and nervous systems, thus producing quiet content and rest.

12. The Nutritive-cure embraces these principles, and by representing a scientific combination of exercising, breathing, bathing, eating, sleeping, resting, clothing &c., is the only scientific system of medication in existence.

A Harp of One String.

Yes, but it is a good one, and if it does not make music, it at least makes poetry out of a noted professor. Some persons are disturbed by our repeated quotations from N. Chapman, M. D., formerly President of the Medical Society of Pennsylvania, and Professor of Institutes of Physic, University of Pennsylvania, one of the oldest and most reputable doctor-manufactories in the land. We have quoted him as saying:

"Medical conclusions differ very widely from every other species of evidence. We cheat ourselves with a thousand illusions, and have imposed upon us still more deceptions. It is not necessary that I should enforce this remark by the enumeration of any examples. No one who is conversant with the practice of physic need be told how often his own deductions have proved erroneous, or how little credit is to be reposed in those pompous recommendations with which medicines are daily promulgated."

They think perhaps we misunderstand the professor, even if we do not misquote him. To any who are in doubt as to the quotation we would cite them to Vol. I, page 31, of his "Therapeutics and Materia Medica," and as to our understanding of it, we quote from the same volume complete explanation. On page 33 we read:

"But to trace the multiplied relations of a medicine to disease, the exercise of the higher faculties of the mind is demanded, and we at once introduce the spirit of speculation, or what is termed reasoning in medicine."

Honest Chapman! Would that there were more of him. We can certify that he tells the truth. Medical reasoning is simply medical speculation, and he calls it a "noble prerogative." Hear him as he grows eloquent thereon:

"As well might we compare the mere flutterings of the meanest and most groveling bird with the bold and well-sustained flight of Jove's own imperial eagle, as those slow processes of a vulgar intellect by which facts are collected or observed, with the vigorous sallies of speculative genius which seize truth as it were by intuition, and reveal it in a burst of light of celestial brightness."

There it is in a nutshell. We belong to the vulgar intellect who observe and collect facts, and reason therefrom, but he seizes truth, as it were, by intuition, and "reveals it in a burst of light of celestial brightness." Was he not right in saying that medical reasoning differs from all other reasoning? Medical reasoning is speculation; is performed only by speculative geniuses which "reveal the truth in a burst of light," &c.

But, oh, the brightness has suddenly given way to deep darkness. "The annals of medicine are already sufficiently crowded with abortions of theory," he says, but he hopes for better times, though he acknowledges the present fearful condition in these words (*Ibid*):

"As it is, we are plunged in a Doedalian labyrinth almost without a clue. Dark and perplexed, our devious career resembles the blind gropings of Homer's Cyclops round his cave."

Poor fellow! And yet he continued to grind out from his mill young doctors by the hundreds, who being born in the labyrinth, bred in the cave, and nurtured in deep darkness, have at length come to be able to see much better in the darkness than in the light. In the light of hygienic truth they are sun-struck, blinded, dazzled; though in the darkness of Cyclops' cave they can see a dollar through a mill stone as far as anybody else.

Not Retired.

"As I myself expect to become a teacher of the laws of health, I read several health journals, aiming to keep posted and learn what I can, and I must say if I had to be confined to any one, THE LAWS OF HEALTH published by yourself would be my choice. J. C.
Calamine, Wis."

Why? Because we are not leading a retired life, but are young, active, vigorous and rapidly growing. Health journals, like men, often out-live their usefulness; or, if not, they retire on their laurels, and finally give place to their younger and more enterprising brethren. Who objects?

Not Satisfied.

The philosophers on eating are not satisfied, as the following from a correspondent shows: "Your monthly visits are appreciated. The mental pabulum you furnish is of rare quality. Your expositions of physiological truth are characterized by axiomatic perspicuity, so that the cultured mind is seldom at a loss for your meaning. The force of truth comes home with convincing power on all subjects you have thus far handled, save one. Your remarks on diet seem somewhat mazy. Perhaps the difficulty is all in my own mind. That there are no special affinities between the brain and certain kinds of food, has an unphilosophical look. That the same elements are expended in thought and in chopping wood is a dark truth to me"

Our correspondent is mistaken in our positions. We have never denied that different elements of food are used in making brain than in making muscle; that other elements are used in the production of bone, etc. What we have asserted is, that fish will not make brains, even though they contain the material out of which brains are made; that beans will not make muscle, even though they contain the elements of muscle in them. What we say is that there is a long step between the food we eat and the body we possess; that food has no power to make organs, but that organs are built up as the result of forces in the organism which use the material, and not as the result of any force in the matter. There is a dark suspicion in the minds of the chemists that the phosphates make brains, that nitrates make muscle, and that carbonates make heat; and hence, when they want brains they feed a man phosphates, and when they want muscle they give him nitrates, and when they want heat, they feed him carbonates. There is a woful miscalculation here, as all the facts show, and as all sound philosophy will explain. *It is one thing to have the material out of which structure can be made, and it is quite another thing to make the structure.* We asserted that the stones in the quarry will not make a house, that the iron in the mines will not make a steam-engine; that the gold in the bowels of the earth has no power to make a watch. It requires force, genius, skill, not possessed by matter, to make out of raw material important structure. Muscle is not to be had by simply eating beans, nor brains by eating fish, but is developed only by proper exercise according to the capacities of the individual.

Our correspondent seems to think that there is an affinity between brain and phosphates, so that when a man eats phosphates they will seek out their affinity and become brains; and when he eats nitrates, they will grow into muscle; but I venture to say he is mistaken. Good food and plenty of it, according to the needs of the system, is the true theory of

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diet, but bone and brain and muscle grow—are not made—develop by exercise, are not erected; are produced according to the person's inherent capacities, not according to the will of an architect, physician or physiologist.

"Are brain and muscle radically the same," he says; to which we answer, both *yes* and *no*. They are the same in that they are both developed only through exercise, while different as to the material out of which they are composed; but inasmuch as all good food comprises both elements, we may eat it without misgiving, and trust to nature and our habits for the development of the organ. A prevalent and fundamental mistake on this subject of food has been that philosophers have "got the cart before the horse." They have seen both horse and cart moving along the road together, but have somehow come to the conclusion that the cart moves the horse, instead of the horse moving the cart. It makes all the difference in the world which furnishes the power. If the cart furnishes the power we want more cart; if the horse furnishes the power, let us have more horse. If fish furnishes the power to make brains, let us eat more fish; but if the organism furnishes the power to use fish, whereby to build up its organs and strength, let us then develop vital power. Can our friend see the point?

Female Diseases and Displacements.

There are millions of women in this country, suffering from diseases peculiar to their sex, and the treatment of such cases is one of the greatest sources of revenue to the profession. And *such* treatment! If it were successful, it might be tolerated; but when we know that these persons have been victims of a system of treatment, which may make any sensitive woman shudder at the requisite ordeal, and that continued for years without any positive cure, even though the symptoms are temporarily abated, we can imagine how great must be the suffering. The number of patients, despite the efforts of physicians, and their new and loudly advocated methods, is steadily on the increase, and the time has come when a change must be made. We are prepared, because of long experience and careful thought upon this subject, to declare that local applications in such cases are usually worse than nothing. The man who invented the speculum, instead of being a benefactor of women, has been unwittingly one of her worst enemies; and the constant use, by young scapegraces, of this instrument of torture, to the sensitive mind is a crying evil. When will women wake up to the fact, that there is a better way? Their inflammations, ulcerations and displacements are evidences of weakness, on the one hand, and impurity of blood on the other. They are local manifestations of general disease, and the true way to cure them is by building up the general health. As long as the digestion is feeble, the abdominal and pelvic muscles debilitated and the circulation poor, no amount of caustic applications can be of real service; for if they should happen to relieve the local ailments, it is invariably by the production of a worse one in some other part of the organism. It is useless to undertake to dry up the fountain, while the source is in active operation. Good digestion, efficient breathing and pure blood will cure any case of uterine disease that is curable; and without these no woman can have good health if all the physicians in Christendom are employed.

The Drs. Walter have succeeded in restoring to sound and vigorous health hundreds of persons who have been incurable by the ordinary methods; and yet have never employed a wash, lotion, caustic, or other local application, saving only pure soft water. They have done it by invigorating the general health, and when the patient is cured, she is cured all over. Strong brains, steady nerves, vigorous muscles, abounding health; and instead of the dark and sallow complexion, rosy cheeks and bright eyes. Instead of languor, and headache, and debility, vivacity, buoyancy, and strength. Instead of being a burden to husband, family and friends, a helpmeet for all the duties of life. The Nutritive-Cure is the only reasonable system for female diseases, whatever may be said of other diseases common to our race.

Inunction.

This form of hygienic treatment is being adopted by the profession much more readily than was water-cure or electricity; but it nevertheless is rejected by a large class of the more conservative. H. Guard Knaggs, M. D., F. R. S., of London, England, in a communication to the *Sanitarian*, gives some interesting facts on the subject, but none more so than the following:

"Here is a specimen of a 'snub' which I received some time ago from one of the ornaments of our profession. It was in a case in which oiling had not been resorted to, for the simple reason that the mother and nurse objected to the process. I quote from memory the physician's words:

'Your oiling may be good—I cannot say—but we cannot recognize any method of treatment which is not brought forward in a scientific manner. Now I dare say I shall shock you, but in this case I would recommend that calomel be given in frequent doses; for I have always found that where there is any ailment of the chest or head, a good rummage up amongst the bowels is followed by satisfactory results. I cannot tell you how the calomel acts, but that it does act is certain.'"

"Such was his science.

"The chief objections here (London) urged against inunction are:

"1. It is nasty and dirty. What is that when human life is at stake?

"2. It does not pay. Cures too quickly. Surely a sentiment unworthy an honorable profession.

"3. It is not scientific. Shade of Ginx's baby! What is science but knowledge? What is knowledge but power? Are we to withhold the means of saving life simply because we may soil some linen, or cure our patient before we have had time to make a harvest out of his case? Besides, *is medicine a science? It used not to be considered so in my probationary days.*"—*Sanitarian*, March, 1879, page 120.

Passing by the remarkable admissions, first, that oiling is to be rejected because it has not been brought forward scientifically, and, second because it cures too quickly, we are led to criticize the use of frequent doses of calomel not only, but the application of other deadly poisons—agents destructive to the vital forces, by a wisdom that does not claim to be founded on knowledge. "Is medicine a science? It has not been so considered," says this physician, and yet all deadly poisons are administered with a frequency and in quantity that is alarming to all who know they are not administered scientifically. We can perceive reason when our brethren of the profession urge that none but educated physicians should be permitted to practice, but when it is admitted that these are not scientifically educated, but only empirically so, we still doubt the propriety of allowing them to administer these deadly poisons. And when it can be proved, as it can be, that while these poisons reduce the disease, they do so by destroying the vitality which is a necessary factor in its production, we are still further incited to cry out against a practice that cures disease by killing or partially killing patients. Disease is a phenomenon of life, and the variety and intensity of the disease represents pretty correctly the degree of vital vigor, and hence it can always be cured by destroying the vitality on which it depends. Diseases which represent vigorous vitality are seldom dangerous, but those which represent exhausted conditions are always so; and yet medicine cures the former by establishing the latter. "We do but cure one disease by producing another," says Dr. Martyn Paine, Institutes of Medicine, page 542; and to this end "Our most violent poisons are our best remedies," "they operate in the same manner as the remote causes of disease."—Ibid.

Burns and Scalds.

These injuries are not essentially different in their nature, the difference being simply that one is caused by moist heat, and the other by dry. They are often so slight as to be of little moment, but occasionally they are so severe as to require the most prompt and energetic treatment.

When a burn does not break the skin, it is of little consequence, and should be treated like any ordinary inflammation. Keeping cold water upon the part until the smarting ceases, and then the appli-

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cation of glycerine, or, if this is not tolerated, common lard rubbed upon the burned surface, is all the treatment necessary. If blisters are formed, they should be pricked to let out the water, and then a poultice of slippery elm bark and water, or a mixture of beeswax and lard melted together and spread upon a cloth, may be applied with great comfort to the patient.

But if the injury is more extensive, covering over a large surface, and especially if the tissues beneath the skin are destroyed, the difficulty is necessarily distressing and often dangerous. In such cases the nervous system may become affected, so that the patient will have severe chills, the pulse may be small, frequent and feeble, the breathing becomes oppressed, there is a tendency to delirium, and death may occur as a result of the shock to the nervous system. In general, if one limb is entirely involved, or a greater part of the trunk, the prospect of recovery is small.

The treatment in the severest cases should be both constitutional and local. The shock to the nervous system is best relieved by a prolonged hot full bath. The patient should be immersed in water at 100 degrees, save the injured part, and the temperature of the water should be increased until it can not be tolerated any hotter. The bath should be continued until the nervous prostration is relieved, or from thirty to forty minutes.

If the burns are deep, a good application is a thick solution of gum arabic, which may be prepared in a few minutes by dissolving the gum in hot water. After it is applied, it may be dusted over with dry powder, and so the tissues underneath will be completely protected. Another good remedy is collodion and sweet oil, in the proportion of one part of the oil to two parts of collodion. This may be kept in an air-tight bottle for any length of time, and may be applied by a camel's hair brush. It immediately forms a firm covering to the exposed surfaces, and so takes the place of the destroyed cuticle. If these substances are not at hand, common dry flour may be dusted upon the injured part to the depth of half an inch or so. All liniments to "draw out the fire" are worse than useless, for there is no fire there to draw out. It should be borne in mind that these, as well as all other injuries, are healed by the action of the vital forces alone, and all that can be done from without is to protect the exposed surfaces from the irritating influence of the atmosphere, and to balance the general circulation, should it become disturbed. People in general trust too much to external agencies, and too little to the only true source of healing, the vitality within.

THE wise man subscribes for THE LAWS OF HEALTH—reads, thinks, learns; "length of days is in her right hand, and in her left riches and honor."

More Corroborative Testimony.

SOUTH OTSELIE, N. Y., March 4, 1879.

Dr. Robt. Walter:

DEAR SIR:—I beg to say a few words in regard to the LAWS OF HEALTH and the system of cure which it advocates.

I have received your journal with pleasure and profit, and am very much interested with the details of the new practice. I find in my library a work which corroborates some of your statements, from the pen of our worthy Professor, John M. Scudder. In his Principles of Medicine, (a work which would not hurt the most orthodox hygienist to peruse), on page 32, in speaking of formative force, he makes three propositions:

1st. There is a force in the organic world differing from chemical or physical forces and which may be appropriately termed the formative force.

2d. That this force is not possessed by all persons in equal degree; that in some it is strong, giving health and great power to live, while in others it is feeble, consequently disease and death.

3rd. That this force is not a fixed quantity with any individual, but that it may be increased and diminished.

On page 34, he says, "No fact is more prominent in medicine than that over activity of the nervous system rapidly exhausts vitality."

On the same page, in speaking of those conditions favoring formative or vital force he says:

These may be summed up in this—a regular and co-ordinate action of all parts of the body.

And again, page 36, he says:

All medicines or agencies acting in an unnatural manner, namely, contrary to the functions in health reduces the power of the patient to live.

On page 349 he says, there are three truths which should be borne in mind by every one engaged in the practice of medicine, as upon them only can a rational practice be founded. They are:

1st. That in all cases of disease there is an impairment of vital power in the parts involved.

2d. That there is a natural tendency to recovery or renewal of life, and

3d. That the human body acts on medicine, and not medicine on the body.

Do not these statements correspond with your ideas, or do I mistake? There are many more statements in Prof. Scudder's writings which if true (and I think they are), would help to prove the non-fallacy of the Nutritive-Cure, but this must suffice for this time.

Yours truly,
DR. E. L. CHURCH,
South Otselie, Chenango Co., N. Y.

Thanks to Dr. Church for his communication. Taken in connection with the one from Mr. Clark, of London, it becomes evident that medical men have not wholly over-looked the principles we advocate, and hence increasing testimony to their truth; but as with Dr. Martin so with Prof. Scudder. It does not appear that either of these men have so perceived these principles as to be able to construct a system which gives them due prominence. Dr. Scudder, we know, advocates and applies substances which are directly opposed to vitality,—a practice which violates the fundamental principles of our system. If it be true, as this gentleman shows, that the rapidity and certainty of cure depend upon the amount of vitality, it follows as a logical sequence that a scientific system will employ only such substances in the treatment of the invalid as tends to build up, not to break down. That Dr. Scudder employs medicinal agents is the proof that he does not follow out in practice the principle which he has here set forth. For we hold it to be true, as asserted by eminent authorities, that all medicines are poisons; and hence that all drug medication is exhaustive to the vitality of the patient, and hence not recuperative.

Every Day Testimony.

WHAT EVERYBODY SAYS MUST BE TRUE.

April 9, 1879.

I have received the last number of THE LAWS OF HEALTH, which ends my subscription for the past year. I have been very much pleased; and benefited beyond any power I possess to express in writing. I can't think of doing without it. Enclosed I send 50 cents.

WALTER THOMPSON,
Allen P. O., Kansas.

April 11th, 1879.

I think it the best paper for the money I ever read. L. J. BARNARD.

April 12th, 1879.

I have been reading your LAWS OF HEALTH, and I think it the most sensible work I have taken hold of of late.

MARY A. HINDS, Webster, Mass.

April 12th, 1879.

THE LAWS is indispensable. I could not do without it. I consider it a great success.

W. H. TRIVORROW, Meadowvale, Ont.

April 14th, 1879.

It is the best health journal I ever read. It has more condensed information than half a dozen of those others. M. F. TYNAN,
Newark, N. J.

April 15th, 1879.

Radical, without being impracticable, and sound on the hygienic question.

JAMES H. WILLIAMS,
Adams, Mass.

April 17th, 1879.

I think your paper the very best health journal that I ever read, and I told a friend today that it had been a greater benefit to me than one hundred dollars spent for doctors and drugs. Yours truly,

WM. H. POLLARD,
Middletown, Vt.

April 21st, 1879.

My husband, whom I consider a judge, says THE LAWS OF HEALTH is the best and cheapest thing he ever read in this country or the old.

MRS. E. KIDD,
Mahanoy City, Pa.

Thanks for the March number just received, I had not received the three previous numbers, and thought you had surely "bust." N. G. L.

No, no, my friend, we don't belong to the "busting" order. We desire to say to our friends that if the journal does not reach each one by the middle of each month it is not our fault; for it is sent, and will be re-sent if we are notified of its failure. They may rest assured that there is no doubt of its being published regularly. We are not of the kind who begin many things and never finish anything; but on the contrary each step which we have taken in this great reform has been taken advisedly and will not be retraced. The LAWS OF HEALTH was born to live, and was never more lusty than now.

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Questions Answered.

By Robt. Walter, M. D.

Question. Have you any faith in any of the inhalants advertised for catarrh?

Answer. Catarrh is a disease of the general system with a local expression, and is to be cured by means that will purify the blood and improve the circulation. Any local appliance, while the general condition remains, is worse than nothing. The diseased condition of the system must have expression somewhere, and if it is dried up in the head and nostrils, it is more likely than not to appear on the bronchial tubes, liver, stomach, bowels, bladder or sexual organs. It is possible that an inhalant might be serviceable, provided the general conditions have been improved. But advertising inhalants as cure-alls, is quackery in its worst form.

Sunbaths.—Is it best to take them before or after eating, before or after exercise, or does it make any difference when, or how long we remain in the sun? Is it possible to stay too long?

Answer. Take your sunbath about three hours after breakfast, and remain in it not longer than twenty minutes to begin with, which may be increased to half an hour, or three-quarters of an hour, in time. You can stay too long—should not remain after free perspiration is induced.

Question. Do you consider lettuce a healthful article of food; and if so, what is the best method of preparing it without vinegar, etc., so generally used? C. & E. Kidd.

Answer. We doubt its healthfulness. It is said to contain the narcotic principle of opium, and if this statement is true, it is certainly unfit for use as food. Even if this is not true, it is difficult to have agreeable food from it without the use of unwholesome condiments. For this reason we make no attempt to use it, and do not advise our friends to add it to a list of foods already sufficiently large.

Question. Do gruels and soupy mushes give out their elements by absorption, or do they make digestion easy? J. N. S.

Answer. More or less of the fluid is absorbed, while the residuum is digested.

Question. What do you consider the best article as a base for artificial teeth? M. H.

Answer. Rubber or celluloid is preferable in my opinion to any mineral plates.

Question. Three years ago you prescribed for my mother the application of dry earth for a running sore on her leg of very offensive smell, which I did, and it worked like a charm. The ulcer healed up, and is well yet, although she was then seventy years old. People thought healing it would take her life, but her health has been good since. Did the earth heal it, and did you expect it to when you told me?

Margaret Hocker.

Answer. The vitality of the patient healed the ulcer, but the earth supplied the conditions necessary for healing. I did not know for certain that the earth was the needful thing, because I had not seen the case; but I had reason to think that it was just what was needed. Dry earth is an antiseptic, and absorbed the foul matters which kept the sore from healing. The ulcer being thus cleansed, healing was accomplished because it is the natural tendency of all wounds to heal when the causes of ulceration are removed. I am not surprised that the ulcer healed under the application, and that your mother has remained in good health ever since.

Question. Your Journal and premium came very opportunely. I have been a radical vegetarian for some time, and it is just beginning to dawn on me that I was, as you say, being starved. But my difficulty now is to get good flesh food. What do you think of beef and fish? I am determined to make a change, for I find that the more radical I am the the thinner I grow.

Canadian Subscriber.

Answer. Your experience is that of hundreds, and I advise you to eat beef, mutton, fish and chicken, in as healthful condition as you can. I know of no choice between these, but would advise you to have each occasionally, but to use but one at a time, and only once per day. You will find yourself improved by so doing. Stall-fed beef is not as good as grass-fed.

Question. On what terms do you take young men into your establishment as helpers, and are you likely to need such? The Same.

Answer. We make it a point to employ, as helpers, only the most vigorous and efficient men that can be obtained; men who are strong and healthy, and able to do the best work. We do not like to employ invalids to take care of invalids. You will find here generally that our helpers are fine specimens of physical vigor. None others are likely to find a situation.

Question. What time of day do you consider best to knead the bowels?

Answer. At any time when convenient, except soon after eating a hearty meal.

Question. What is the cause and cure of a branny, white powder on the skin? What diet is best suited to such a condition? You will say, "get invigorated," but how shall we get invigorated?

Answer. The condition of skin which you mention is evidence of debility in that organ, and of impurity of blood. Diet is important in a negative sense, that is, you should not use such food as is unhealthful. Salted, seasoned, spiced foods tend to produce this condition, and should be avoided. But all good, wholesome, substantial food, in reasonable quantity, but not too frequently, is desirable. Then you should use only pure, soft water for drink. In addition, such a case needs thorough rubbing and manipulations of the general surface of the body. A bath in lukewarm water should be had twice or three times a week, the person being thoroughly rubbed by an attendant while in it, and after coming out. Deficiency of circulation is really the cause of the difficulty, and whatever will improve the circulation will tend to relieve it. Hence bathing, rubbing, out-door exercises, sun baths, etc., are all important; but none more so than exercises to cause a flow of blood to the surface. Invigoration is a system, and must be studied and applied as a system. My articles on "Invigoration through circulation," in succeeding journals are what you need to understand.

Question. Is bromide of potassium or sodium a good sedative?

Answer. It is good wherewith to ruin the nervous systems of invalids, rendering them sleepless, irritable and wretched, but good for no other purpose that I know of, except for temporary use. Bromide is a substance which tends to relieve temporarily a difficulty, say sleeplessness, by permanently fastening it upon the invalid.

Question. Is there any cure for unpleasant dreams, and what is it?

A New York Subscriber.

Answer. Dreams evince a disturbed condition of the brain and nervous system, and this is dependent upon the state of the general health. The character of the dreams will be determined chiefly by the department of the brain that is most disturbed. The only proper cure is in relieving the irritation by removing its causes. It may be indigestion, a torpid liver, constipated bowels, inactive skin or kidneys, breathing confined air, or other causes. Whatever it is, remove the cause, and the effect will cease; restore the patient to health, and his dreams have disappeared.

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We wish Drs. Fuller and Bonsall every success, and can assure the public that they will prove worthy of all confidence. To the former patrons of our Mountain Park Home, Dr. Fuller needs no commendation; her works being amply sufficient to testify to her faithfulness and skill.

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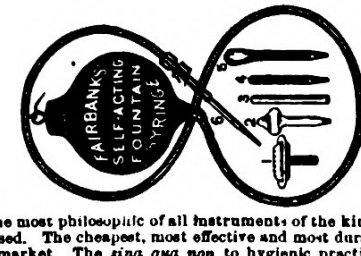

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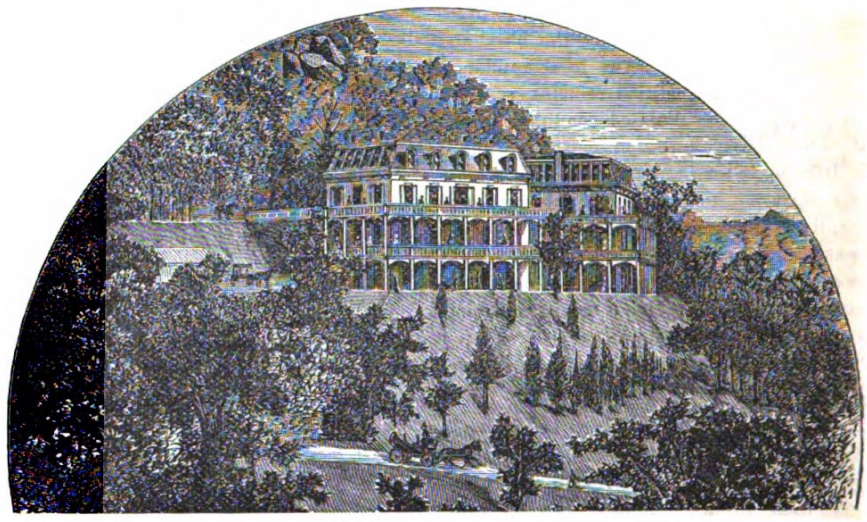

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THE AIR for purity and salubrity is unsurpassed, if indeed equaled, this side the Rocky mountains. Malaria is absolutely unknown in our midst.

THE SCENERY is beautiful beyond description. From our door is presented an amphitheatre of magnificent proportions and surpassing loveliness. Immediately in front and beneath is the beautiful city of Reading; to the north are innumerable farm houses, villages, church spires and railways, all clearly in view; while to the south and west the lofty mountains rear their stately forms.

THE WATER is incomparably pure and soft, gushing from living springs on our mountain side.

THE BUILDINGS are three in number, large, airy, new and clean, built during the three years especially for our purposes; and being intended to secure health to all its inmates by living healthfully, every attention has been bestowed on the location, sanitary arrangements, drainage, &c. Sunlight and ventilation have been especially provided for. Indeed whatever science can suggest or art accomplish has not been neglected in this model sanitary household. The buildings are built separately, that air and sunshine, those wonderful disinfectants shall daily reach all parts; and while the soil is gravel and sand, the strata of the country lie perpendicular and not horizontal, whereby the most perfect drainage is secured with a reasonable outlay therefor.

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Health by healthful living is the idea; but invalids require special care, attention and treatment.

THE WATER-CURE is employed by us with great moderation, but with most excellent results.

THE DIET-CURE is also carefully attended to, while we nevertheless studiously avoid all extremes in this as in other respects.

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Electricity and sunbathing are also employed with most satisfactory results. In addition to all,

The Mental-Cure is itself an important system, and the social and religious influences are of a high order. While attending to the wants of a feeble body, though representing no sect, we do not forget the wants of the unseen life The influences of a Christian life, and particularly of Christian Charity are daily felt. Though it is not a place for the ascetic, or where the misanthrope will be happy, it is significantly a home where all who are striving for better conditions and a nobler life will receive aid and comfort.

TERMS.—These range from $7.00 to $14.00 per week according to room occupied; but very feeble persons cannot be received at less than $9.00. These prices include all necessary expenses in ordinary cases, including board, lodging, fire, lights, &c., saving first examination fee, $5.00, and carriage from depot 25 cents, and 25 cents for each trunk, and personal washing which is done in neighboring cottages at 50 cents a dozen. Parties requiring extra large rooms or meals in room, extra nursing, &c., will be charged extra.

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THE LAWS OF HEALTH.

Health is the normal condition of man. Remove the cause and the effect will cease.

VOL. II. READING, PA., JUNE, 1879. No. 2.

How the Blood Circulates.

BY ROBT. WALTER, M. D.

The New Practice No. 4. A knowledge of how the blood circulates is necessary to a knowledge of how to improve its circulation, and as all nutrition takes place in and because of the circulation it will readily be seen that we have an important subject before us. And fortunately there is no dispute among intelligent physiologists as to the *modus operandi*; which we proceed to explain that we may draw some important conclusions therefrom.

"The circulatory apparatus consists of four different parts, viz.:

"1st. The Heart, a hollow muscular organ which receives the blood at one orifice and drives it out, in successive impulses, at another.

"2nd. The Arteries; a series of branching tubes which convey the blood from the heart to the different tissues and organs of the body.

"3rd. The Capillaries; a network of minute inosculating tubules, which are interwoven with the substance of the tissues, and which bring the blood into intimate contact with the cells and fibres of which they are composed; and

"4th. The veins: a set of converging vessels, destined to collect the blood from the capillaries, and return it to the heart.

"In each of these four different parts of the circulatory apparatus, the movement of the blood is peculiar and dependent on special conditions. It will therefore be required to be studied in each one of them separately."

[*Dalton's Physiology.*

We will confine our attention solely to the circulation in the human body.

First. The heart. This is a hollow muscular organ, properly divided into right and left, the right side engaged in circulating the venous or impure blood, and the left side in circulating the arterial or pure blood. Each side is divided into two compartments, fitted with valves to allow the blood to flow only in one direction, so that by alternate contraction and relaxation of the walls, thereby alternately increasing and diminishing the amount of blood in the heart, a constant circulation is kept up. First, the venous blood mingled with the digested food, is poured into the right auricle of the heart, whence it passes through a valve into the right ventricle, which by sudden contraction, forces it through the pulmonary artery, and this by dividing and subdividing, until it ends in capillaries, brings this impure blood in contact with the air in the air-cells of the lungs. At this point a most remarkable change takes place in the quality of the blood; it is changed from a dark red to a bright red color, caused by the throwing off of carbon and the absorption of oxygen. Immediately that this change has taken place the blood returns through the veins to the left auricle of the heart.

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The lungs, therefore, are great purifying organs, and the pulmonary circulation a great process of purification; and the question at once recurs how best to promote or improve this circulation.

The answer is involved in the inquiry as to what is the force, and whence derived, that circulates the blood through the lungs. The first suggestion is that the heart performs the work by communicating to the circulating fluids a powerful impulse forward, and aiding its return by producing a vacuum in the veins by its alternate contractions and relaxations. It is certain, however, that the heart alone does not possess the power to perform so great a work. Though it contracts powerfully upon the contained fluids, and sends them into the arteries with a strong impulse, it is evident that the force would be spent before the blood could have traveled the long distances through the innumerable arteries, capillaries and veins. An additional force, we believe, is found in the magnetic conditions of blood and air. The blood, as it leaves the heart in its course to the lungs, is impure and devitalized, and is therefore possessed of negative magnetic qualities. The oxygen of the air is positive, and positive and negative are known to have powerful affinities and rush together when brought within range of attraction. Thus by a powerful attractive force, air and blood meet in the capillaries, where the carbonaceous impurities are thrown off into the cavities of the lungs, and the blood now rendered pure, oxygenated, red, is possessed of positive qualities, while the air has not been wholly rendered negative; and as positive repels positive, so by virtue of this law of repulsion, the now vitalized blood is driven back toward the heart through the veins. The contraction and relaxation of the heart creates a vacuum in the veins, and thus another powerful agency in carrying it forward.

If this theory of the circulation in the pulmonary vessels is correct, it will readily be seen how necessary to ease of circulation, is the breathing of pure, magnetic, highly oxygenated air in abundant quantity. And hence the necessity of not only living in a pure, high atmosphere, but of having large, vigorous and active lungs. To breathe abundantly, therefore, is important to good circulation, as well as to pure blood and perfect nutrition. There is another important fact to be noted, viz.: that a large amount of vapor is absorbed by air from the blood into the lungs, and hence that a dry air facilitates this absorption and therefore both breathing and circulation; and hence is very important for all invalids, but especially for those suffering from lung or heart disease. Indeed, damp, impure air on the one hand, and weak lungs on the other, are often causes of heart disease; for as the lungs fail to supply abundance of positively charged air, the labor of the heart is correspondingly increased, and so the organ becomes enlarged in its parts by excessive labor, and irregular in its actions. Disease of the right side of the heart, indeed, is very apt to follow prolonged weakness of lungs, and may often be cured by a proper attention to the conditions of a healthful circulation.

(To be continued.)

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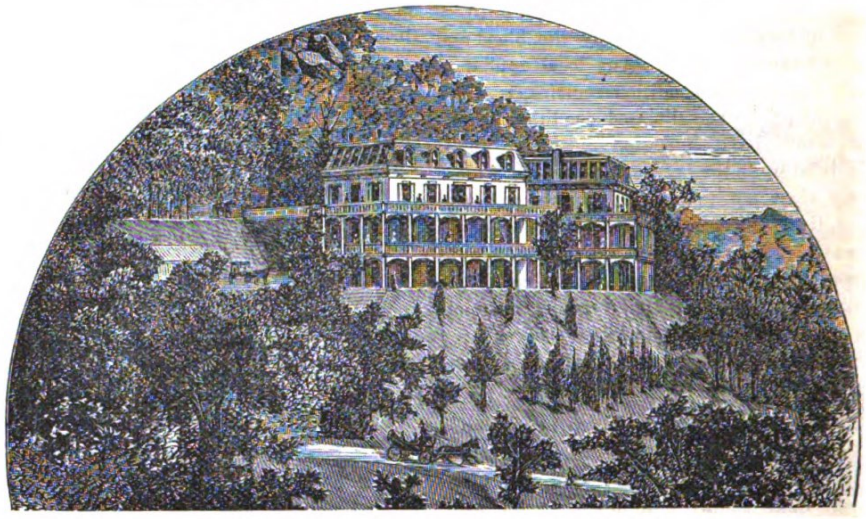

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J. A. TENNEY, M. D., } *Physicians.*

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THE WATER is incomparably pure and soft, gushing from living springs on our mountain side.

THE BUILDINGS are three in number, large, airy, new and clean, built during the three years especially for our purposes; and being intended to secure health to all its inmates by living healthfully, every attention has been bestowed on the location, sanitary arrangements, drainage, &c. Sunlight and ventilation have been especially provided for. Indeed whatever science can suggest or art accomplish has not been neglected in this model sanitary household. The buildings are built separately, that air and sunshine, those wonderful disinfectants shall daily reach all parts; and while the soil is gravel and sand, the strata of the country lie perpendicular and not horizontal, whereby the most perfect drainage is secured with a reasonable outlay therefor.

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THE LAWS OF HEALTH.

Health is the normal condition of man. Remove the cause and the effect will cease.

VOL. II. READING, PA., JUNE, 1879. No. 2.

How the Blood Circulates.

BY ROBT. WALTER, M. D.

The New Practice No. 4. A knowledge of how the blood circulates is necessary to a knowledge of how to improve its circulation, and as all nutrition takes place in and because of the circulation it will readily be seen that we have an important subject before us. And fortunately there is no dispute among intelligent physiologists as to the *modus operandi*; which we proceed to explain that we may draw some important conclusions therefrom.

"The circulatory apparatus consists of four different parts, viz.:

"1st. The Heart, a hollow muscular organ which receives the blood at one orifice and drives it out, in successive impulses, at another.

"2nd. The Arteries; a series of branching tubes which convey the blood from the heart to the different tissues and organs of the body.

"3rd. The Capillaries; a network of minute inosculating tubules, which are interwoven with the substance of the tissues, and which bring the blood into intimate contact with the cells and fibres of which they are composed; and

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form, when there is a continual secretion of whitish or yellowish mucous, which occasions frequent blowing of the nose, and it may also be felt dropping down into the throat. In other cases the matter secreted is of a greenish color, and often has an intolerably offensive smell. Sometimes the odor is so offensive as to isolate the unfortunate patient from society. When the disease has progressed to this stage, it is generally accompanied with caries of the bones of the nose in greater or less degree, pieces of bone often being discharged with the pus, which is often streaked with blood. If the habits of the patient are very unphysiological, and the disease is left to itself, it may run on for years, and cause the greatest discomfort to himself and friends.

Catarrh is always a disease of nervous debility. This statement may seem strange at first, for it is generally thought to be caused by a cold, resulting from sudden changes in the weather. So it is, but these are but a result of debility, for very strong and robust people do not contract colds at all; and many who do have colds never have chronic catarrh. Delicate people are very apt to have cold upon the slightest exposure. It should be noted, also, that chronic catarrh often occurs as an original affection. It depends upon a sufferer's peculiar condition of the system, and not upon atmospheric changes; these being only strong excitants of the acute form of the disease. But in the chronic, as in the acute form, the skin fails to perform its duty, and the passages of the head and throat and rectum do it by this increased secretion.

The proportion of advertised nostrums for this disease, compared with those puffed for other diseases, show how prevalent catarrh is among the masses, for the supply of so-called remedies is in direct ratio to the demand for them. It is something remarkable that persons who are intelligent and cautious upon most subjects should follow the representations of the unprincipled venders of such nostrums. No reasonable person can think for a moment that the peddlers of patent medicines can possibly possess any knowledge that is withheld from the regular profession. The whole business is an experiment upon the credulity of their victims, at the hands of ignorant pretenders. It altogether reminds one of the remark of Josh Billings when he was told that twenty glasses of lager beer would not intoxicate him; he said the man who told him so was a saloon keeper, and so could not possibly have anything but a disinterested motive in making such a statement.

The common practice is to use nasal injections of acetate of lead, sulphate of zinc, sulphate of copper, or nitrate of silver. But it is utterly futile to use such applications while the condition of the system upon which the disease depends continues to exist; and when the primary condition is overcome, such violent applications will be entirely unnecessary. Constitutional treatment is of the very first importance, while local applications should be secondary. The patient should give up a sedentary occupation, if he has one. He should be out of doors as much as possible, and in every way he should pursue a course that will invigorate all the vital powers, as set forth in other articles of this series, and elucidated in every number of this journal.

If the discharge from the nostrils is very offensive, the nasal douche of water impregnated with a solution of chloride of soda, or permanganate of potash, should be employed. A very small proportion of these substances should be used at first. If the potash is used, it should only make the water a little pinkish, and the chloride should not exceed half a teaspoonful to the pint of water. The quantity may be increased as the patient finds it agreeable. To douche the nose, the Fountain Syringe is invaluable. The glass tube of the syringe should be introduced into one nostril and the nostril pressed around it to exclude the air. Then if the head is bent forward and to one side, the current of water will run into one nostril and out of the other, cleansing the whole passage. If the discharge from the nose is not offensive, tepid water is the best local appliance; and all such appliances as oxygenated air, and all other nostrums, should be let alone severely. If they relieve for the time, the trouble will return again in full force. But the effect of the true plan is permanent.

Prompt Treatment for Many Diseases.

The initial treatment for Colds, Measles, Scarlatina, Diphtheria, Small-pox, Pneumonia, Typhoid and Typhus Fever, &c., &c.

We treat conditions and not primarily diseases, and inasmuch as the initial conditions are similar in a great variety of diseases, the treatment of the patient at the beginning is essentially the same in all of them. Here is a child, youth or grown person, who has lately come to feel ill, having headache, lassitude, weariness, with chilly sensations alternating with flashes of heat, the skin continues to grow hot and dry, the patient is drowsy and listless, the pulse full, strong, perhaps hard, there may be some soreness of throat, &c., and perhaps patient and friends think he has a severe cold. The truth is, the patient may have a cold, or croup, diphtheria, scarlet fever, measles, small-pox, typhoid or almost any other acute disease, being developed; but no matter; the conditions indicate the treatment to be employed, and the following will be found *the precise thing every time:*

1st. A hot bath, either full bath, or sitz and foot bath, continued from five to ten minutes, according to the vigor of the patient and the degree of heat. If the patient be chilly without great heat, and is also of vigorous constitution, the bath may be continued ten minutes or even more, until perspiration follows if possible, or until the heat becomes well distributed throughout the body. If free perspiration is induced, follow with a full bath of tepid water, in which the patient is immersed all over, and rubbed vigorously for two minutes, then on coming out, have a dry sheet thrown over him, and be rubbed dry, and then go to bed. During the hot bath, nausea and perhaps vomiting may occur; if nausea, to prevent vomiting, sip ice-cold water, and have upon the head a towel wet in cold water and re-wet frequently. If vomiting, let the patient drink abundantly of hot water, which will either settle the stomach or cleanse it of biliary impurities.

If free sweating do not follow the hot bath, but the patient is greatly heated, then a wet sheet pack, in which the patient is enveloped in a wet sheet, covered with several blankets drawn closely around the neck, as described in the May number of this journal, and continued for thirty minutes to one hour, according to the severity of the case and the strength of the patient, to be followed by the tepid full bath and rubbing as before, and rest in bed. The patient who has heretofore been eating freely, no doubt, should now abstain from food for several hours, or, in extreme cases, for several days, this point to be regulated somewhat by the appetite and capacity to use food.

These symptoms generally occur in the evening, and the treatment should not be postponed till next day, but should be promptly administered, and the patient will need no more attention in the majority of cases till next morning. Through the day following, if the case is still in doubt, the patient may rest in bed, simply waiting, eating little or nothing, but in the evening, if the conditions are unchanged, repeat the operation of the night previous. The second day from the treatment, which will be the third or fourth of the disease, will certainly determine what the case is, which must then be treated on its own merits.

If it was simply a cold, and the patient has been judiciously managed, he will be well; if croup would have followed, it was probably prevented by the prompt treatment, or if it did actually appear, the coldest application to the throat should be used in addition to the other treatment, and repeated every few minutes to maintain the temperature at about the normal point, and so absolutely prevent the formation of a membrane. The same treatment for diphtheria. If measles or scarlatina follow, the characteristic rash will, under this treatment, invariably appear in due time.

The same may be said of small-pox or any other exanthema. If it be typhoid

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or other such fever, it may continue in spite of the treatment, but if similar treatment be judiciously persevered in, the worst fevers will become comparatively harmless.

One point, which must never be forgotten, is, that the treatment should always be administered at, or just before the fever reaches its highest point. When the fever is declining this treatment might cause injury.

Pneumonia will be indicated by oppression of chest, difficulty of breathing, great heat and pain about the chest, which will demand a wet compress, made of four thickness of linen wet in water, and laid on the heated parts and covered by dry cotton cloths, and never left on to get dry, but should be often re-wet as long as the heat continues. Similar application to the throat, or any other part that is heated, is appropriate and often absolutely necessary.

Under this treatment it is surprising how satisfactorily the eruption will appear in measles, scarlatina, small-pox, &c., and the oppression, and other severe symptoms be relieved, and the beauty of it all is that this treatment is beneficial in all cases, no matter what the disease, provided the fever is present. It is treatment for the fever, whether it be idiopathic or symptomatic, and always right when the fever, under whatever name, is present; and in most cases where there is no fever, but only cold.

Tumors.

It is not an uncommon occurence for the Mountain Park Home to prepare those who have tumors to undergo an operation. The ordinary methods of preparation, by giving tonics, stimulants, etc., are most deceptive and unreliable, producing a manifestation of vitality to the eye, but when the strain comes upon strength that is augmented by such means, it is found to be evanescent and unreliable. But we have new proofs most strikingly manifest every little while, that the processes used at the Home are substantial in accumulating vitality which shall stand the test in the evil day; and it is never more strikingly illustrated than in those cases where we can compare the recuperative power of one of our patients upon the couch of the surgeon, with those who have not had such preparation.

Miss Laura S—— came to us about the middle of February with a large tumor upon the left side of the lower jaw. It evidently commenced as a fibrous tumor, but degenerated into a fungous growth, which would, in time, destroy her life. Prominent surgeons had given her the opinion that she had better take her chance at home, and not submit to an operation, as she would never recover from it. When she came to the home, its physicians gave a different opinion, for they had seen such results from the processes of treatment employed here as to warrant them in believing that she could be carried through the operation with safety. After a thorough course of invigoration, she went to Philadelphia and consulted Drs. Pancoast and Gross, who are among the best surgeons of that city. They both strongly advised her to have an operation at once, for her system was in prime condition for such an ordeal. The operation was performed by Dr. W. H. Pancoast, assisted by Dr. Gross, on Tuesday, May 20th, and was witnessed by Dr. Tenney and Miss Dr. McKinley. The jaw was completely taken out on that side, being cut off at the chin, and removed from the articulation just in front of the ear. So skillfully and rapidly was the work performed, that in less than an hour from the time the surgeon commenced to work the operation was performed, the edges of the wound, which extended from the ear to the mouth, were nicely brought together and fastened by sutures, and the patient was perfectly conscious and talking to her friends. The periosteum was scraped off and saved, so that new bone will form in place of the old. At the time of writing—May 26th—the wound has healed so that the sutures have been removed, Miss S. is able to sit up, and there is nothing to hinder the most complete recovery. We can only regard it as a complete illustration of what a true method of preparatory treatment will do for a person who otherwise would be considered in a very dangerous condition.

We were urged to the treatment of this case by an experiment had with a similar one three years ago. Miss J. K., suffering with a scrofulous tumor on the right side of the neck immediately covering the large arteries (a dangerous place), came to us to be treated for incipient consumption. She had consulted several eminent surgeons with reference to a removal of the tumor, but each one refused to touch it, saying she could not recover. We placed her under treatment, continued it for several months and finally sent her to Dr. Willson of the Woman's College, Philadelphia. He did not hesitate to remove it, and in doing so was compelled to lay bare the carotid artery three inches. But the wound healed by first intention, and in two weeks the lady returned to us in excellent health.

These cases certainly speak well of the propriety of our methods for purifying the blood and building up the general health.

How to Treat Diseases.

The proper treatment of disease is to be determined by its nature, and herein is the great fault of medical practitioners. Of the nature of disease in general they admit they do not know, but they blindly treat it, on the supposition that it is destructive,—something which will destroy life if not itself destroyed. A little common sense will help us very materially in discovering the true means of cure.

In the first place, disease is a vital action, dependent upon the operations of the vital forces; but in addition there must be a morbific cause, that will start up this abnormal or diseased action. Hence we have two factors in the production of disease, the vitality on the one hand, and the morbific cause of the disease on the other; so it follows that any plans which will reduce or destroy either of these factors will destroy or cure the disease. Drug-medical practice cures diseases just as successfully as hygienic, but it cures them by destroying the vitality of the organism, and so killing, or partially killing, the patient. Hygienic treatment undertakes to cure the disease by removing the morbific cause of it, or by invigorating the organism so as to cast out the cause, thus curing the disease by removing the second factor. The difference between drug-treatment and hygienic treatment, therefore, is, that one cures the disease by destroying the acting factor, the vitality of the patient, while the other cures the disease by removing all morbific causes of it, and invigorating the patient. When the disease is cured by the former plan, the patient is really worse off in many respects than he was before the cure. By the latter plan, he is invigorated, built up, and rendered strong and healthy. In the former plan, one disease is cured by the production of another, and hence the necessity of employing those things which are destructive to health. Dr. Hall, of *Hall's Journal of Health*, was correct when he said, "medicine, even the mildest, is essentially a poison, and produces a desired result in proportion to its poisonous qualities. It cures by setting up a disease greater than the original one which it seeks to cure," (Hall's Health by Good Living, page 35,) and yet he did not hesitate to employ it.

Unfermented Wine.

Inasmuch as many churches are seeking to do away with the use of wine containing alcohol, at the communion table, the suggestion of a friend in the ministry is given for the benefit of those who may desire to make trial of it. My friend says that he takes the best Port wine that he can procure, and boils it down from one-fourth to one-third, thus removing all the alcohol, and retaining all the other qualities. The flavor is uninjured; it can be prepared the day before it is wanted, thus ensuring its sweetness, and the absence of alcohol renders it harmless as water. Prepared in this way it becomes a valuable drink in cases of sickness. J. S. C.

We have a better suggestion. Dr. C. E. Welch, of Vineland, N. J., manufactures a most magnificent article of unfermented wine, which is carefully bottled and sold at a reasonable price to the public. We have used this wine in our practice, and find it a most delightful food for the invalid. Wine that has ever had in it alcohol must be infinitely inferior to the pure, unfermented juice of the grape.—Ed.

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2. The rapidity and the certainty of cure depend as much upon the degree of vitality—the amount and quality of the vital force—as upon the distribution of it.
3. The symptoms may be changed and the disease often cured by reducing the quality or degree of this force, on the one hand, or by increasing it on the other.
4. Bleeding, purging stimulating, and all drug processes, as also the Water and Diet cures, as usually employed, cure on the former plan.—the plan of depleting the system.
5. The Nutritive-cure, on the other hand, cures only by building up, invigorating, and purifying the organism.
6. The true way to cure invalids therefore, is to distribute the vital force to its appropriate channels by means which shall increase, but never reduce the vital vigor.
7. This is done by the use of normal health agencies, which while equalizing the circulation, in which all nutrition takes place increases the production or manufacture of vitality, and reduces expenditure.
8. The breathing, digestive and circulatory systems comprise the organs of manufacture; while the brain, and nervous systems comprise the organs of expenditure.
9. The organs of manufacture are largely muscular, and depend for the performance of their functions on muscular contraction and relaxation; while
10. The organs of expenditure are mostly nervous, and depletion corresponds to the excitability and activity of the nervous systems.
11. All processes are to be employed to invigorate the muscular systems, special and general, while at the same time they tranquilize the brain and nervous systems, thus producing quiet, content and rest.
12. The Nutritive-cure embraces these principles, and by representing a scientific combination of exercising, breathing, bathing, eating, sleeping, resting, clothing, &c., is the only scientific system of medication in existence.

Women as Physicians.

If anything were needed to confirm the suspicion that the interests of the medical profession are often considered superior to the interests of the people, it is the persistence with which the sterner sex in the profession oppose the admission of female students within the sacred precincts of college walls. It is a curious fact, that the man who drinks whiskey, chews tobacco, and has flowing from his mouth moral miasmas even more injurious than the material, shall all at once become so sensitive to the delicacy, virtue and modesty of the female sex. He who has never before given evidence of any particular moral sensibility, has all at once become a champion to save dear, delightful woman from her own self. Patients, dying by the millions, starved out of life for want of the sympathetic words and kindly ministries of woman, are of no account when compared to the dangers to be apprehended from contact with the sterner sex in the lecture, or dissecting-room. Who will tell us if the arguments against women physicians are the result of a professional instinct that ever fears its occupation will be gone, or is really the result of a high moral tone? We suggest that while there are thousands of men engaged in handling sick women, who are really unfit to deal with sick horses, there are thousands of women fitted by gifts natural to the sex to fill their places, who are yet excluded by the prejudices of those that, for the time being, represent the power. Talk about modesty, moral sensibility, social propriety, that shall exclude a woman from the care of her fellow-woman, while the frivolous and rollicking student shall invade the lying-in room, or administer local applications for the unfortunate victim of female diseases. I know a patient who was carried to one of the most noted hospitals for women in the land, and who was practiced upon by young scapegraces, under the name of students, for years. Said students, after spending their strength in rioting, were in the habit of returning during the small hours of the morning to wake up their patient from a sound sleep, and administer the prescription of the elders. Of course, it is evident that these men are very anxious to protect the virtue and modesty of women. But nevertheless, if there is to-day a crying want for any change, it is for more women physicians. Prejudice has long kept from the ranks of the profession those who are best fitted to fill them. The power and prestige of that which is, has long been exercised to prevent the accomplishment of that which should be. But the masses are ripe for revolution, and women everywhere that are fitted by nature are invited to occupy the field. From all points the cry goes forth from stricken women for physicians of their own sex; and the world should heed the cry, and supply the want. We trust that the time is not far distant when a hygienic college shall again be established, and both men and women shall be trained to the advocacy and practice of a system of healing that will appeal to the common sense, if not to the educated sense of mankind. For we hold that education is exceedingly desirable, if it be education into truth. But much of the education of our times is into error, and error is worse than ignorance.

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And thus we run the weary round of medicine. A new poison having been discovered to cause peculiar symptoms in the patient is immediately lauded as a great acquisition, advertised extensively, and used by hundreds of thousands of practitioners to the jeopardy of millions of human lives, until after hundreds of thousands (a low estimate) have found untimely graves because of its use, the profession are incited to sit in judgment upon it, and hear the arguments pro and con. The objections to the use of Chloral will be found very serious, but it will not be discarded nevertheless. Though employed to induce sleep, it will be found a wonderful agent in the production of permanent sleeplessness. But no matter; nothing that can be said against it will induce its entire withdrawal from practice. A profession that continues the use of calomel, opium, alcohol, &c., in spite of all the facts, is not likely to be very sensitive to the destructive influence of Chloral, or should they issue words of warning it is only in favor of its younger competitor Bromide, which is really the more destructive of the two.

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This is what we are coming to. Scientific thought is a wonderful thing. The age of miracles is only beginning. It has latterly been discovered that while human brains are made up chiefly of phosphates, a constituent of nearly all foods, the phosphates of wheat, the staple food of the American people, are found chiefly in the bran and middlings, and is hence excluded from white flour by the process of bolting. This fact has induced many intelligent people to adopt the use of brown bread—of unbolted flour; but some of our philosophers have a strong antipathy to the color, and hence the effort to get the brains without the bran. Prof. Horsford, of an Eastern University, claims to have solved the problem, much to the relief of the cows and hogs who were threatened with a bran famine.

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But to our lesson. The phosphates exist in abundance in the chemical combination known as phosphoric acid, and Prof. Horsford has produced such an acid, to be used as "rising," which gives us, in connection with fine flour, the whitest and lightest of bread, and which according to his theory will produce brains in wonderful abundance. In other words, white flour manufactured into white bread, by the aid of phosphoric acid, gives all the material for food that the whole of the wheat does.

But there is a slight difficulty with this theory: it is opposed to the facts. Wheat is made up of carbonates, nitrates and phosphates; and if phosphoric acid supplies the necessary phosphates in the combination, why will not nitric acid answer for the nitrates, and carbonic acid for the carbonates; or why will not a mixture of phosphoric, nitric and carbonic acids make superior bread? Why go to the miller and buy flour at a high price, when you can get the same elements from your druggists at lower rates? Why should famines ever occur while we have inventive Horsfords to feed us? Is it not because of an immense difference between a vegetable compound and a chemical compound? The one is a compound of growth, the other a compound of decay. Though composed of the same elements, the one is food while the other is poison. For all experience goes to show that the manner of combination is of much more importance than the elements combined. Alcohol is composed of the same elements as is ether, nitric acid the same as atmospheric air; the diamond, charcoal and lampblack are all of the same material. In a word, out of a few elements, we have millions on millions of compounds all differing in nature and qualities. The elements in animals are the same as those in vegetables, and in vegetables the same as in earth, air and water; but is there, therefore, no difference between animals, vegetables and minerals? If human life could be sustained by the use of inorganic substances, all that would be necessary in order to have brains would be to eat phosphorus, in order to have bones to eat limestone, in order to have muscles to eat nitric acid, to have iron constitutions eat cast-iron; indeed, in order to have a body at all, to eat dirt. Man, it is true, is made from earth and air; but the process of making is as firmly decreed as is the material out of which he is made. The decree has gone forth: "Thou shalt earn thy bread in the sweat of thy brow." The vegetable world is the necessary connecting link between man and earth. The round of nature is this: out of the mineral or inorganic world grows the vegetable; out of the vegetable come animals and men; then the animal kingdom returns to the dust, and from the dust is produced the vegetable and then again the animal, keeping up a complete and continual round of growth and decay. But all this requires some force, some power The chemists have unfortunately left God and God's decrees out of the account. By analyzing man they have found that he is made out of matter, and hence they have concluded that, given the matter, they can make the men. Thus they have been dreaming for years of producing a full-grown, vigorous, healthy, intellectual human being out of the laboratory. By combining limestone and iron, phosphoric and nitric acids in a mortar with a pestle they hope to produce wisdom. They seem to have entirely forgotten that though vegetables feed and thrive on the products of decay, animals can feed only upon the products of growth; that though night-soil, barnyard products and gutter filth, in their wondrous chemical combinations, are proper food for one, they are poison for the other.

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MT. WASHINGTON, May 10, 1879.

Dr. R. Walter:

Your various tracts and journals I have carefully read, and some few inquires suggest themselves, upon which I should like your views more fully. Do you not think, that in a normal condition, the human system is better without the use of butchers' meats as food? In our family, my wife, her sister, and myself have not eaten meat for some time, from two to three years past, and the two former have thriven well and gained flesh, whilst I, who have as a rule very good health, have under unusual pressure fully maintained my usual standard, with marked improvement in some respects, and fallen behind in none that I am aware of. As regards "the morbid appetite" of which you speak, as being the invariable result of a vegetarian diet, we have none of us ever experienced it, being fully satisfied by such things as we eat. But this may be accounted for by the fact of our diet not being, strictly speaking, a vegetarian one, for we depend mainly upon, and use largely, the grains and fruits,—these are our main stays, and vegetables occupy but a secondary position. We use Graham bread exclusively, with occasionally fish (fresh), and oysters in season. Our children are vegetarians, and are the admiration of every one who sees them, for splendid physique and general healthful appearance. Neither of them have ever had any of the numerous children's diseases, a fact which we attribute to our mode of living and care in feeding them.

In sending the tracts in March, you omitted one of the set which I wished to read. Please enclose this time if convenient. It is "Alcohol as a Cause of Disease." Truly, yours,

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The acknowledgment by this gentleman that he is not practically and strictly a vegetarian is complete answer to his objections. He has followed out in his practice a moderate course, and got good results, but he is really no more of a vegetarian than we are. Instead therefore of this testimony being opposed to our teachings, it corroborates their propriety. We have never urged that butcher's meat is necessary to health, nor that morbid appetite is the invariable result of a moderate vegetarianism. We have said that the strict vegetarianism advocated and employed in some so-called hygienic institutions, has been destructive to the best interests of the patient, and that morbid appetite, with loss of flesh and strength, are the rule and not the exception, and that all our experience leads us to conclude that strict vegetarianism, which excludes butter, milk, eggs, fish, as well as all kinds of flesh, is an extreme position, unwarrantable by the facts, and unphilosophic as to the principles. We have set forth these principles in our Nutritive Cure, which makes our positions clear, and until our friends and critics shall undertake to overthrow the principles there advocated, or to refute the arguments set forth, it would be a waste of time to answer all the possible objections that may be urged. This gentleman, it is admitted, has maintained fair health, and has improved on a moderate hygienic dietary, and such a dietary as we would not probably object to. We have in numerous instances known persons living, in the first place, in the reckless manner somewhat common to the American people, but under the pressure of ill health, change to hygienic methods of living, and even to a moderate vegetarianism, and get improvement in health thereby; but who will tell us whether the improvement was the result of vegetarianism, or of improved habits in other respects? When a man changes from unhealthful habits of life to a more reasonable system, there is no way to decide whether his system is entirely correct, or what particular parts of the system are most valuable, except by reference to general principles. We are prepared to defend our positions against Sylvester Graham, or any one else, by facts, by arguments, and by deductions from general principles. An isolated fact, however, can not be accepted as a sufficient reason for rejecting our system. This gentleman claims for his family great freedom from sickness; we claim the same thing in our family. We live hygienically, but employ moderately flesh meats; he lives hygienically, and employs occasionally fish, oysters, etc., and we both get the same results. Where is the difference between the plans of living? We believe that we can show as good an account as to physical and moral development in our children as this gentleman can in his, and hence the facts which he cites are no arguments for vegetarianism.

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In sending the tracts in March, you omitted one of the set which I wished to read. Please enclose this time if convenient. It is "Alcohol as a Cause of Disease." Truly, yours,

H. F. MEYER.

The acknowledgment by this gentleman that he is not practically and strictly a vegetarian is complete answer to his objections. He has followed out in his practice a moderate course, and got good results, but he is really no more of a vegetarian than we are. Instead therefore of this testimony being opposed to our teachings, it corroborates their propriety. We have never urged that butcher's meat is necessary to health, nor that morbid appetite is the invariable result of a moderate vegetarianism. We have said that the strict vegetarianism advocated and employed in some so-called hygienic institutions, has been destructive to the best interests of the patient, and that morbid appetite, with loss of flesh and strength, are the rule and not the exception, and that all our experience leads us to conclude that strict vegetarianism, which excludes butter, milk, eggs, fish, as well as all kinds of flesh, is an extreme position, unwarrantable by the facts, and unphilosophic as to the principles. We have set forth these principles in our Nutritive Cure, which makes our positions clear, and until our friends and critics shall undertake to overthrow the principles there advocated, or to refute the arguments set forth, it would be a waste of time to answer all the possible objections that may be urged. This gentleman, it is admitted, has maintained fair health, and has improved on a moderate hygienic dietary, and such a dietary as we would not probably object to. We have in numerous instances known persons living, in the first place, in the reckless manner somewhat common to the American people, but under the pressure of ill health, change to hygienic methods of living, and even to a moderate vegetarianism, and get improvement in health thereby; but who will tell us whether the improvement was the result of vegetarianism, or of improved habits in other respects? When a man changes from unhealthful habits of life to a more reasonable system, there is no way to decide whether his system is entirely correct, or what particular parts of the system are most valuable, except by reference to general principles. We are prepared to defend our positions against Sylvester Graham, or any one else, by facts, by arguments, and by deductions from general principles. An isolated fact, however, can not be accepted as a sufficient reason for rejecting our system. This gentleman claims for his family great freedom from sickness; we claim the same thing in our family. We live hygienically, but employ moderately flesh meats; he lives hygienically, and employs occasionally fish, oysters, etc., and we both get the same results. Where is the difference between the plans of living? We believe that we can show as good an account as to physical and moral development in our children as this gentleman can in his, and hence the facts which he cites are no arguments for vegetarianism.

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Health in the Household.—No. 1.

By Jas. S. Cooley, A. M., M. D.

Among the many factors involved in maintaining health and preventing disease, efficient household management holds an important place. Many, perhaps most of the ailments which lessen so much the productive power of individuals and communities, can be traced to unwholesome and vitiated surroundings, which an intelligent foresight would have corrected. Improvements in these matters, however, are necessarily of slow growth, and many lives must be sacrificed—the victims of foul gases and crowded apartments—before these needed reformations are universally adopted.

But there are numerous ways in which the death rate from these causes may be diminished, within the reach of all. Danger comes to the household from waste and refuse materials, of vegetable or animal origin. These, when properly disposed of, become fertilizers of the soil, and furnish the nutriment necessary for growing crops; but breed disease and pestilence if allowed to decompose in the open air or near some source of water-supply.

Emphatically is this true of the excrementitious products of the human body. The best methods of disposing of these are, as yet, unsettled; but a few suggestions are offered, looking towards a solution of this question of sanitary reform. The water-closet system, now universally prevalent in cities and large towns, is full of dangers. It does not attempt to destroy, or neutralize the poisonous effluvia of the cesspool; but by means of traps and elevated flues, the attempt is made to prevent their escape, within the house. Very frequently these means are inadequate or defective, and whole blocks are contaminated with deadly sewer gas, or the water used for drinking and culinary purposes becomes the unsuspected cause of disease and death.

In the country, the system in use is little better. Often, the out-house is placed at some distance from the dwelling, at the foot of the garden perhaps, or behind the pig-sty, the only means of approach being by an unsheltered and conspicuous path. The building is old and dilapidated, affording no adequate protection from the blasts and snows of winter. The careful householder, in thus removing the offensive object from close proximity to the house, has unwarily become the cause of greater evils.

The calls of nature, a proper regard for which is as essential to health as the taking of food, are permitted to go unheeded, especially by the female members of the family, who shrink from the unavoidable publicity, or dread the exposure at night, or in stormy or inclement weather. Constipation, with all its attendant evils, becomes a confirmed habit, and robs many a cheek of the ruddy glow of health. The foul and festering mass of corruption, left uncovered in its shallow receptacle, pollutes the air for rods around, and lends a fatal arrow to every zephyr.

In other cases, with thoughtfulness for the comfort of mother, wife or daughter, the husband and father has set apart one corner of the dwelling for this purpose; or has located the building at the rear of the wood-shed, so that it can be reached without leaving the house. This is almost as bad as a defective trap in a water closet; for now the whole house is pervaded by the vile, gaseous exhalations.

To remedy this matter is easier than many suppose. Instead of the system of water closets, which now taxes to their utmost, both water supply and sewerage, some form of earth-closet is practicable and necessary. There is fame and fortune in store for him who shall devise a simple and economical system by which these excrementitious matters can be converted into a harmless, inoffensive fertilizer. The fact that coal ashes are a perfect absorbent and deodorizing agent, suggests the idea that they might be utilized by every family in deodorizing the contents of the privy-vault. A well-organized plan for removing the same might easily be arranged, and that which is now poisonous and destructive, would become, at the same time, harmless and valuable.

In the country, and in small places where the old system of out-houses prevails, the plan suggested is simple. The building should be located near the dwelling house, inconspicuous, but easy of access. It should be divided into at least two sections, not communicating with each other, but entered, one from within, and one from without. It should also be constructed in a substantial manner, and, if the climate is cold, provision should be made for warming it. Care should be taken to make it as comfortable and wholesome as any room in the house.

The receptacle for the droppings should be capacious, and so constructed that it can be removed and emptied. Sifted coal-ashes or dry earth, one or the other of which can always be obtained, should be provided, with which all that goes into the vault is to be covered immediately. No water-slops from chamber or kitchen should be thrown into it, these being provided for in a properly constructed receptacle, out of doors, where muck, or some other absorbent, can be plentifully supplied.

In this manner all odor is destroyed and the contents of the vault are rendered innocuous, and may be used for garden or field more readily than barnyard manure. This subject is worthy the attention of every householder, inasmuch as it aims not only to prevent the loss of a valuable fertilizing agent, but also to neutralize and destroy the offensiveness and deleterious effects of these waste products of human life.

Sandy Hill, N. Y.

A Home Prescription.

We are always glad to be of service to our subscribers, and to this end we offer a prescription which is calculated to be of benefit to them all. In many respects all cases are alike. Disturbed circulation, in which the blood is engorged in the internal organs, and insufficiently present in the extremities and on the surface, represents the state of health in ninety-nine out of every hundred persons. Equalize the circulation and we improve the nutrition, build up vitality, purify the blood, strengthen the organs and restore health. One of the simplest measures is proper clothing. Every man should be careful that the extremities are particularly well protected. It is a great fallacy to wear chest protectors and red flannel undershirts, while the feet and legs, hands and arms, are half clad. Indeed, chest protectors, under such circumstances, are injurious instead of beneficial, because they aid in destroying the very circulation which they are supposed to maintain. Clothing the lungs excessively while the feet are half clad induces an excessive flow of blood thereto, and hence congestion, pleurisy, pneumonia, consumption, etc. Let every man be sure to keep the feet and hands, arms and legs thoroughly warm, by doubling the clothing upon them if necessary.

Second, proper food. Stimulating foods and drinks tend to exhaust the nervous centres, whereby an excessive flow of blood is induced to them, while the surface and extremities, which are not correspondingly stimulated, become depleted. Plain, wholesome grains, fruits and vegetables, with a very moderate amount of flesh-meats once a day, is the best dietary.

Third, proper bathing. The skin should be kept thoroughly clean by baths administered to the whole surface at least twice per week, if no other bathing is employed. These should be taken in a warm room, with the feet and hands particularly warm before going in. A full bath at 90 or 95 degrees, in which the feet and whole body, already warm, are immersed, and the person thoroughly rubbed, is the best form of bath.

Fourth, proper exercise. The tendency of all civilization is to induce excessive action of the brain and nervous system and hence excessive flow of blood thereto. The balance should be restored by the use of special exercises of the muscular system, by which the nervous congestions will be relieved, and the blood caused to circulate in the surface and extremities. The Movement-cure is a *sine qua non* to health for invalids and those of sedentary habits.

Fifth, rest and sleep. They are exceedingly important, in order that the circulation may regain its equilibrium. The excitement of labor, business, and even pleasure, tends to disturb the circulation, particularly in the feeble. Sleep

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and rest permit a restoration. Every man should be sure that his feet are thoroughly warm on retiring at night, and the head cool. The room should be airy and well ventilated, the bed clean and comfortable.

Sixth, the surroundings should be pleasant. Life should be enjoyable. Peace, quietness, charity, faithfulness, hope, should be encouraged; while gloom, despondency, and all the evil passions of the human breast, should be resolutely avoided. This general plan of life will be serviceable to everybody; but, of course, the feeble invalid needs more particular directions how to be restored. These suggestions may be rendered applicable to every case by entering into the details suited to every particular case.

Questions Answered.

By Robt. Walter, M. D.

Question. What is best to be done for eczema around the nipple, of four or five years' standing? It itches and discharges a good deal.

C. S.

Answer. Dr. Tenney's article in the May number will give you a pretty good idea of the whole subject of eczema. It can only be cured by restoring the general health. I would try the application of dry earth to the part, for the purpose of absorbing the matter. I do not know that this would be of any particular service, but it would do no harm.

Question. I have been sick for two years, preparatory to a settling out of doors. I endorse the hygienic system, and would like much to attend a hygienic college if I could learn of one. Can you give me any advice?

Miss P. C.

Answer. We regret that there is no hygienic institution that teaches the system to students in any such way as to fit them for successful practice. My advice would be, that you become connected with some good health institution, and learn the practice of the art during the summer season, while you attend lectures in a regular medical college during the winter. In the course of three or four years you can become a thoroughly skilled physician by this means.

Question. What position is best for a patient to take while having the bowels kneaded?

S. A. B.

Answer. **He should sit on a couch and recline at an angle of about 45 to 60 degrees. The attendant should stand immediately in front of him, and press the bowels with one hand, commencing at the right side close to the ribs, and follow one hand after the other across to the left side, down to the hip, across to the right side and up, and so continue, pressing the bowels with one fist at a time, bearing his weight in part or wholly alternately on his hands as he moves them in the circle. Such kneading will do more to improve the action of the bowels, mesenteric and lacteal glands, stomach, liver, spleen, etc., than anything that I can suggest.**

Question. **What is the cause of goitre?**

Answer. **Goitre is an enlargement of the thyroid gland, and the cause is unknown. It is probably the result of a scrofulous condition of the system, which is undoubtedly aggravated by the use of hard water or of any other unwholesome drink or food. It prevails in sections of country, and especially where the inhabitants have an insufficiency of sunlight. I have cured severe goitre by sun-bathing, and general hygienic living connected therewith. The treatment should be such as to build up the general health, and the use of fomentations, douches, &c., to cause absorption.**

Question. What is your opinion of the medical virtues of the seidlitz powder? 2. Where could I get a syringe tube, No. 3, large rectum, and what is the cost? 3. What is the temperature of the human stomach?

Answer. 1. There is no virtue in the seidlitz powder, though its tendency may be to reduce the temperature of the stomach somewhat, possibly cool the circulating fluids. 2. We can supply the rubber tube for 75 cents; glass tubes at 10 cents each. 3. The temperature of the stomach is from 99 to 103 or 104 degrees. It is lowest during repose, and increases with active physical exercise and during digestion. Undoubtedly, however, the temperature is different in different persons.

Question. What is your opinion of Holman's Liver Pad?

Answer. Holman's Liver Pad is a plan of giving medicine through the skin instead of through the stomach; but a vote of confidence has always been to the use of the medicine in any form rather than to the needs of patients, we are certainly not prepared to endorse Holman's Pad. A man may be relieved while thus swallowing calomel; he can go home, kiss his wife and get the measles. But we call attention to the effect, not to the *mode* of getting it. A man can use Holman's Liver Pad and get a temporarily increased action of the liver; but medicine, whether introduced by absorption, or by swallowing, is a substance which temporarily cures a difficulty by permanently establishing the conditions upon which the difficulty depends; or it is a substance which cures one disease by producing another. *Similia similibus curantur* is true in many cases, *Contraria contrariis curantur* is true in many other cases; but while the disease is being cured by these plans, the patient is being killed.

Question. (1) What treatment would you prescribe for catarrh? (2) What can be done to prevent hemorrhage of lungs? Mrs. C. M. Smith.

Answer. **Both catarrh and hemorrhage indicate obstructed capillary circulation, by which the surface is suffering for want of blood, while the internal skin is engorged. Faulty nutrition is a necessary concomitant of this condition. The treatment, therefore, which will be beneficial in the one case, will be beneficial in the other. This treatment must build up the general health. Invigoration is the necessary result desired. Improved circulation in the surface and the extremities—by moderate bathing, say a warm bath twice a week, by thorough rubbings and manipulations daily, by carefully administered muscular exercises which will cause a flow of blood to the surface, by proper diet, abundance of sleep, and abstinence from all excesses, both mental and physical, recreation, rest, by clothing which shall keep the extremities thoroughly warm, while the central portions of the body are not overburdened, will be efficacious in every case that is curable. In other words, "remove the cause, and the effect will cease." Distribute the blood to the surface and the extremities, and the lungs will not be overburdened and bleed, nor will the mucous membrane become congested or inflamed, which represents catarrh.**

Question. How can you cure spasmodic croup without ipecac? Mrs. G. H. M.

Answer. How can you cure it with ipecac? Who will explain the *modus operandi* of this medicine? We cure croup by removing the causes; and this can be done, first by the warm bath to equalize the circulation; because croup is invariably connected with, and caused by, suppression of the external circulation. Second, by the application of ice, or ice-cold compresses to the throat, to prevent the formation of the membrane. If the circulation in the surface and extremities is unobstructed, and the heat about the throat reduced to the normal point, the croup will correspondingly disappear. I have cured severe cases in this manner.

Question. [illegible] to sleep with the arms thrown upon the head.

Answer. It probably is. The position is a wholesome one in most cases, and will tend to elevate the chest and the shoulders.

Question. What relief can be had if one is [illegible] with what is termed perspiration?

Answer. No relief should be given when the patient is free, for the very suppression of perspiration [illegible] a chill. A person is warm and perspires freely. He is exposed to draughts. Lukewarm water is the proper temperature, and a child otherwise comfortable will not take cold, though warm or perspiring, provided he is immediately wrapped in a dry sheet on coming out, rubbed thoroughly dry, and the surface manipulated to establish the circulation.

Question 4th. Can you explain how whiskey can cure hemorrhage of the lungs?

Answer. **No, nor can any one else. The physician in your town will not undertake to give a philosophic explanation, because it is impossible. It is not true that whiskey will cure hemorrhage of the lungs. If it would, why do not people get well who take it? This is true, however; whiskey will stimulate the circulation temporarily, and so for the time being relieve the lungs of engorgement. But while it temporarily relieves the difficulty, it permanently fastens upon the patient the same difficulty. Your husband will find by and by that the whiskey was a mistake, no matter if it does make him feel better for the time. Read carefully the article in this number entitled "Prompt treatment for many diseases," and I feel certain that you will be benefited. I will undertake shortly to explain the treatment of hemorrhage of the lungs.**

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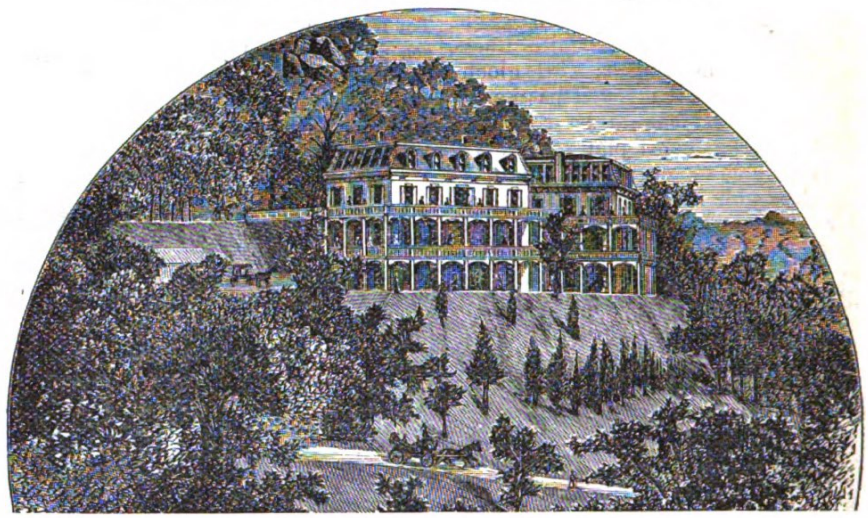

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Health is the normal condition of man. Remove the cause and the effect will cease.

VOL. II. READING, PA., JULY, 1879. No. 3.

A Word to the Profession.

The following letter speaks for itself. The name and address we withhold for obvious reasons:

DR. R. WALTER:

Dear Sir:—I have seen a notice of your Mountain Home in the *Science of Health*. I am a physician, allopathic, of 17 years' practice; have been gradually using less and less medicine, until now I have reached the conclusion that hygiene, as practiced by the most advanced teachers of hygeio-therapy, is the only truly scientific method. I wish to become still further acquainted with it, and to establish an institution at this place for its practice, and write hoping that you will give me some directions and details how to begin and conduct such an enterprise. If you can aid me in this direction, I shall be profoundly grateful, and you will be aiding in a good cause. I am yours, H. R. S., M. D.

We would be glad to be of service to this physician, because he is evidently awake to the fact that drug-medication is a failure, and he looks for better results from the new methods. In this respect he is but one out of thousands, many of whom have communicated their opinion and wishes to the Drs. Walter, and we are glad to be able to say that our journal is perused by medical men even more earnestly than by the lay readers. For this reason and for others, we shall continue to furnish the public with our best thoughts upon the treatment of sick people by purely hygienic appliances.

THE TRUTH IS SPREADING

so rapidly that we are surprised. Five years ago the Drs. Walter ventured on a reorganization of the hygienic system upon a common sense basis, and for these five years have devoted themselves to the advocacy and practice of this system, with the results named. The invalid world are becoming rapidly intelligent upon the subject, and our institution has been *crowded* for two or three years, though now our accommodations, having been greatly increased by the addition of a fine new stone structure, we expect to be able to receive all who apply for treatment by these methods. In addition to this fact, as we have said, physicians of the old school and the new are taking up the ideas and applying the methods as fast as they can. Into some hygienic institutions where we were laughed at for our peculiar notions, our plans are being introduced, and we are confident that not many years will pass by before there will be but one system of hygienic medication. But we have

A WORD OF WARNING

to offer, and this word will be our answer to the physician above quoted; the age is essentially material in its thoughts and conduct, and I believe both professional and laymen look upon the *material* appliances of our institution as the bonds of attraction or interest. THE MOVEMENT-CURE is often considered the sum of all that is good in our treatment, but we do not so consider it. It is truly a very important system, when properly applied, but so is water, so is diet, so is electricity, so are social and mental influences; but after all, our system does *not consist so much in what is done, as in how it is done.* Not so much in appliances as in the principles upon which they are applied If the reader would get a correct idea of our system, he must study its principles, for it is entirely possible to apply the movements and the baths, and the diet, on principles the very opposite of those which have given us our great success. Our allopathic friend, who desires to start an institution, must become thoroughly infused with the true idea of treatment, and then use his appliances accordingly. Let him remember that it is vitality that cures, and that the rapidity and certainty of cure depend upon the amount of vitality, as well as upon its mode of distribution; and that all appliances, no matter by what name they are designated, must be employed in such way as to increase rather than diminish the sum total of the available vitality. The movement-cure is a valuable system if applied so as to reduce nervous activity, while it develops muscular vigor. The water-cure is also valuable to the extent that it quiets and soothes, while it improves nutrition and circulation. So diet which shall furnish all necessary material for the building up of vital structures, but which shall not stimulate, or exhaust nervous power, is important. To quiet the brain and general nervous system by these appliances, while good nutrition is produced throughout the organism, is the important consideration of hygienic treatment; and all means which may be brought to bear to this end are hygienic appliances. But movement-cure, or water-cure, or diet-cure, that shall produce opposite states of mind and body, is not hygienic treatment, but allopathic, water-cure, or movement cure *per se*. The success of the Drs. Walter is peculiarly their own, and is not due to the employment of any particular method, but to the recognition by them of the true principles upon which these methods are employed. Other physicians may employ methods and never get the results; and whether they succeed or fail, will depend upon whether they possess a lively appreciation of, and can carefully and discriminatingly employ the principles in practice. A year ago, a certain water-cure physician undertook to advocate and apply the methods of the Drs. Walter, and treated many patients; but while the patients sent out from our institution are almost without exception well, or greatly improved in health, the patients sent out by that man are almost invariably in worse conditions of health to-day than previously. He may apply the movements and the baths, and the diet, but he has no clear perception of the principles upon which they are applied. Let our allopathic friend study carefully our platform of principles, let him examine into all the processes of elaboration of them which we have set forth in our writings, and above all, let him never forget that it is nature that cures, and that his business is not to force nature into new conditions by his appliances, but simply to supply to the living organism the conditions for health, and allow health to return. Health by healthful living is the scientific idea. Prevention is not only better than cure, but it is the first step toward cure. Remove the cause and the effect will cease; for as there is a law in nature which causes all things to tend to the centre, so there is a law in living organisms that works invariably towards health; as the level is the normal condition of water, so health is the normal condition of man; and as the waters gradually subside when the winds cease, so health follows gradually but surely, when the causes of disease are removed.

Scrofula.—No. 15.

BY J. A. TENNEY, M. D.

Ulceration of the Ear. This affection of the ear arising from no assignable cause, but it is most generally a sequel of colds, scarlet fever, measles, etc., in persons with scrofulous constitutions. The inflammation may be so slight as to affect only the external ear, in which case, if it is properly treated, only partial and temporary deafness will usually occur. But if the inflammation involves the internal ear, and is followed by an abscess, there is the greatest danger that it will result in permanent deafness. The process of ulceration destroys the bones of the ear and other important parts, without which hearing is impossible.

When inflammation of the ear arises from a cold, it commences with a pain in the part, which increases in severity, and is followed by fever, alternating with

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chills. The pain increases, and is soon intensely agonizing. Unless it is arrested, the inflammation is liable to extend to the brain, and then the worst consequences are to be feared. The formation of an abscess usually follows the inflammation, and more or less pus is discharged through the external ear, or through the passage of the throat.

The treatment of this inflammation should be prompt and decisive. The patient should be placed in a full bath at 100 degrees as soon as the pain commences, and the temperature should be gradually increased until free perspiration is induced, for this exerts a controlling influence upon the disease. Patients can often sustain a temperature of 110 to 115 degrees for some minutes with great benefit. Hot fomentations should be applied to the ear to relieve pain, and should be followed by cold applications to allay heat and inflammation. It would be well to alternate the hot and cold applications every five minutes, until the pain has subsided; after that the cool compress may be applied.

When ulceration of the ear follows scarlet fever, measles, etc., it comes on without pain during the convalescing stage of the complaint, and often continues without intermission for an indefinite period. The discharge is of a thick, cream-like consistence, of a yellowish color, verging upon green, and so offensive to make the patient disagreeable to himself and others. Any digestive derangement or exposure to cold will aggravate the trouble. In mild cases the inflammation may only reach the external ear passages, and the drum, which often becomes perforated to a greater or less extent. Hearing is rendered imperfect to the extent the drum is destroyed; yet if it is entirely eaten away by the ulceration, it will not cause total deafness, so there is every incentive to remove the ulcerated condition as soon as possible, for when all inflammation has subsided, hearing will improve.

If the ulceration affects the internal ear seriously, there is little or no encouragement that hearing can be preserved; for when these important parts are destroyed they cannot be reproduced. The greatest attention should be paid to the general health, for it is a difficulty that arises from an impure state of the blood. The best local treatment is an injection of tepid water, with a small quantity of chlorinated soda in solution, two or three times a day. The soda will allay the fetor as well as anything, and is not itself offensive like carbolic acid. Too much attention cannot be paid to cleanliness, for the accumulation of the morbid matter discharged tends to reproduce the mischief in the surrounding tissues.

Ulceration of the Cornea,

or eyeball, is another disease resulting from a scrofulous habit of body. These ulcers are attended with more or less pain, and are so small that it is sometimes difficult to tell that they exist. They are often not larger than the body of a pin, and present a great variety of appearances. If they are suffered to progress, the accumulation of matter will permanently impair the eyesight, or destroy it altogether. Every effort should be put forth to prevent such a result. What has been said in regard to building up the general health in ulceration of the ear, applies with equal force in this disease, for unless the constitutional cause of the trouble is removed, local applications will not do much to relieve the disease. A general building up course of treatment should be pursued in all cases. The patient should be as much as possible out of doors, should regulate his diet carefully, living upon plain, nutritious food, avoiding condiments and greasy foods, for they perpetuate the scrofulous condition. He should have two or three general baths per week in tepid water, and take movements, according to the plan laid down in Taylor's Movement Cure, so as to equalize the circulation and invigorate the general system. Wet cloths continually applied are the best local application. If the ulceration is persistent under this treatment, it may be necessary in bad cases to have the ulcers cauterized; but of course this should not be undertaken except by the experienced surgeon.

Bright's Disease of the Kidneys.

By J. A. Tenney, M. D.

This affection of the kidneys was first described by Richard Bright, in the year 1827. Previous to his researches it was known that general or partial dropsy, which was attended by a secretion of albumen in the urine, was generally fatal; and it was supposed that dropsy was a dangerous disease in itself. But Mr. Bright discovered that the dropsy was merely a symptom, and that the real trouble was a disorganization of the renal substance. This disorganization has been found to be divided into four varieties, which will be described in the order of their liability to occur.

Large White Kidney. In this form of the disease the organs are enlarged, and their weight is increased. The normal weight of the kidneys ranges from three to five ounces; but when enlarged in Bright's disease, the weight of each kidney has been known to exceed twelve ounces. The surface of the organ is smooth and of a whitish color. The uriniferous tubes contain an accumulation of broken down tissue, and a small proportion of fatty granules. There is no abnormal change in the structure of the organ, except the enlargement, in this form of the disease.

Hard, Contracted Kidney. This forms a striking contrast to the condition of the kidneys just described. The organs are very notably diminished both in size and weight. Cases have been known where both kidneys did not weigh more than an ounce and a half. The external surfaces are roughened and irregular, because of the irregularity of the wasting and contraction. The tubes within the organs are distorted as by external pressure, and more or less of them are obliterated. The extent of the contraction depends upon the duration of the disease.

Fatty Kidney. The third form of the disease consists in the deposition of a large quantity of fatty matter about the uriniferous tubes. The kidneys are more or less enlarged, and are of a yellowish color. When they are cut, the different portions have a greasy feel to the fingers. This accumulation of fat in the organ is similar to fatty degeneration of the liver.

Waxy Kidney. The fourth form is comparatively rare. The organs are not necessarily increased in size, but are very firm in texture, and when dissected the cut surfaces have a waxy, translucent appearance. As a rule, all forms of the disease are alike in this: that both organs are affected in an equal degree.

The effects that arise from these conditions are quite similar in most respects. The kidneys fail to secrete urea from the blood, and instead of a normal excretion of urine with its solid constituents, which are impurities which should be expelled from the system, there is a transudation of serum from the blood, laden with albumen. This loss of albumen from the blood causes a deficiency in the capillary circulation, which gives rise to venous congestion. In addition to this, the amount of water which should be eliminated from the kidneys is notably diminished; hence the dropsical effusion.

The disease is developed imperfectly in nearly all cases, the first symptom that calls attention to the disease usually being dropsy. Often the first notice the patient has of the disease is a swelling about the eyes, or in the extremities, or both at the same time. The different forms of the disease do not cause dropsy to the same degree, the first mentioned variety being the worst in this respect. Sometimes dropsy is entirely wanting, and this occurs more frequently when the kidneys are contracted. Of 430 cases noted, general dropsy existed in 376, and was absent in 34. The reason why dropsy does not always occur when the kidneys are contracted is because there is generally less albumen excreted in this variety, and hence the general capillary circulation is not affected to the degree that it is in other varieties. Other things being equal, the amount of dropsical effusion is in proportion to the quantity of albumen found in the urine.

It should be noted that albumen is often found in the urine in many diseases besides the one under consideration; but in such cases it is less in degree, and transient, while in Bright's disease it is constant. Albumen is detected by boiling a specimen of urine in a test tube over a lamp, when the albumen will coagulate like the boiled white of an egg. But this test is not sufficient of itself, as the urine may contain a large amount of phosphates, which are thrown down by the heat, and so may be mistaken for albumen. This fallacy may be detected by adding a few drops of nitric acid, which will cause the phosphates to disappear. Again, if the urine is

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excessively alkaline, the heat will not coagulate the albumen at all; but this is corrected by adding a few drops of the acid. Then, if nitric acid is added to fresh urine, it may lead to the disengagement of uric acid in such abundance as to render the urine as opaque as will albumen itself. To be sure of avoiding errors, specimens of urine should be separately tested with both heat and acid.

In Bright's disease, the prospects are unfavorable to complete recovery. In a majority of cases it terminates fatally in from six to eighteen months. It may give place to some intercurrent affection, as pneumonia, inflammation of the pericardium, or dropsy of the glottis. I have known cases where the patient died from want of sleep consequent upon constant asthma. A certain proportion of cases die from coma and convulsions, from uræmic poisoning, while others die from weakness, no symptoms of such poisoning being present. But it should be borne in mind that the kidneys, like the lungs and other organs of the body, may be disorganized to a certain extent, and yet the bodily functions will go on so as to maintain tolerable health; so hope should not be given up in any case, even though the hope of complete recovery cannot be entertained. We should also bear in mind that many get well where Bright's disease was supposed to exist.

The ordinary treatment has been to rely upon hydragogue cathartics, to remove the abnormal quantity of water present, by causing watery discharges through the bowels; but such a procedure only aims to get rid of the *effects* of the disease, and not its causes. The administration of powerful cathartics is one of the most depleting processes that it is possible to invent, and hence it indirectly tends to fasten the disease upon the patient and make even a partial recovery impossible, while it temporarily relieves the pressure caused by the dropsical effusion. A better plan is to relieve the patient of all care, place him out of doors as much as possible, and carefully avoid everything that can waste animal life. Hot baths should be given quite frequently to draw the blood to the surface, and so relieve the kidneys of their work as much as possible. Copious injections should be given every day to relieve constipation, which is usually present, and the general health should be built up with a nourishing diet, and by movements and manipulations judiciously administered. We apprehend that sometime in the future it will be discovered that even in bad cases this disease may be controlled by the use of the hygienic agencies, and the patient live for many years, even after the kidneys are to a great extent disorganized. It is settled that a certain amount of disease of this kind is not incompatible with comfortable health for many years.

Another Vegetarian's Arguments.

DR. WALTER:

Dear Sir:—I notice in your writings frequent mention that vegetarians have a continual craving for something—supposed to be a constitutional want of flesh meat. I cannot speak as a practical vegetarian; but why we should be any more under the "law of accommodation" with regard to the eating of flesh, than the drinking of alcohol, the use of opium, or any other perverted appetite, is more than I can understand.

Graham says, "If *experience* proves animal food to be more nourishing than vegetable, it also proves that the stimulants which actually afford no nourishment to the system, are really invigorating to the body.

"As pure stimulants afford no nourishment, and flesh-meat nourishes while it stimulates, the depression experienced from a sudden abandonment of the latter, though less distressing, is generally of greater duration than from abandonment of the former."

I send you by mail a copy of the "*Vegetarian Messenger*" for April, on the first page of which is Mr. Isaac Pitman's experience; and would respectfully suggest that you write to Prof. F. W. Newman and a sufficient number of the hundreds of members of that society, to get their testimony with regard to the "continual craving."

My belief is that they would tell a very different story; which if reproduced in your excellent monthly, would make it even more valuable than it is now.

I remain yours, very truly,
"A FRIEND OF TEMPERANCE"
Boston, April 28, 1879.

P. S.—You will please notice also, by the account of the Rev. C. H. Collyns' lectures at Belfast, that vegetarianism, instead of dying out, is, in England at least, at flood tide.

This gentleman has no facts of his own to offer by way of objection, but admits his incapacity to perceive why the law of accommodation should affect us with regard to eating flesh any more than with regard to drinking alcohol. On this subject I think I can enlighten him.

First, flesh meats and alcohol are diametrically opposed to each other, the one being received and appropriated as food by the organism, while the other is always positively rejected by the organism. The food being received, and the actual development of the body dependent upon its use, any one can see that if we abstain from it, actual and positive depletion will follow, unless we can supply its place. And my charge against vegetarianism is that it will not wholly and fully supply the place of flesh meats. Not that the flesh meats contain any elements not found in vegetable food, but that the system can appropriate these elements, because it finds them in a combination easily appropriated, while it does not appropriate the vegetable elements as easily nor as fully, as is proved by innumerable facts. This gentleman suggests that I write to numerous apostles of the vegetarian system, and get their testimony with regard to the continual craving of which I speak. On this point I have to answer, that I am engaged in more important work; that I did spend nearly a score of years in investigating vegetarianism, and have probably become acquainted with a larger number of vegetarians than the parties to whom he refers. I was a vegetarian myself for seven years. My wife was a vegetarian an equal length of time. Almost every hygienic physician of my acquaintance was a vegetarian in greater or less degree, some of them only in theory, while many of them were in practice. And there is not, and has not been a single one of them who commends the system by his own life and practice. All have receded who make any pretentions to health and vigor, and those who have not receded are of no account whatever, as far as my experience goes. Nevertheless, I speak subject to correction.

I will spend a few words in criticism of Graham's arguments, and will remark, that what he here says is a good specimen of the logic upon which he founded his system. I shall take the opportunity hereafter to make extracts from his work, and examine the quality of his reasoning. "If experience proves animal food to be more nourishing than vegetable, it also proves that stimulants which actually afford no nourishment are really invigorating to the body," he says,—a bare, bald, but not even plausible assertion. He jumps to his conclusion as a man might cross a stream where the bridge had been carried away. There is no connection between the two parts of the argument at all. As I said before, food is food, while the stimulants which afford no nourishment are poison; and it is unphilosophical to use food and poison as parallel illustrations. A person's food excites certain activities in the organism, and so does the presence of stimulants; but the activities resulting from one are the very opposite in kind from those resulting from the other.

One unfortunate mistake of Graham and Alcott was to confound sequence with consequence. Because they found certain results from a change of dietary, they therefore argued that vegetarianism was the true theory. The nicer points upon which this question is to be settled never entered into their calculations. Graham was guilty of the wildest reasoning imaginable on this subject, as we shall undertake to show at some future time.

One word in conclusion. We have never denied that the vegetarian was the original diet of man, and that vegetable food is still superior in and of itself to animal food, and that it should constitute the chief part of the dietary of man. All that we have charged is, that by virtue of constitutional changes produced in the human race through generation after generation of flesh-eating, a sudden and radical change cannot be inaugurated and carried out without producing the most injurious results; and that though many men in health may be enabled to become vegetarians without apparent loss of power, yet it is foolish, unphilosophical, and dangerous to insist upon such change for the invalid, whose powers are already depleted, and who needs, not a violent revolution in his life, but a careful, prudent, economical change, that shall insure better health as a fact, and not simply as a theory, that shall insure strength and vigor to nerve and muscle, not simply strength of conviction and pertinacity of purpose. These latter we agree are characteristic of vegetarians; we are not so ready to concede the former.

It Pays our Patrons, if not Us.

"I had expected to have sent my wife to your institution, but thanks to the Movement-Cure and THE LAWS OF HEALTH, she is much improved. I am sorry that I have no new subscribers to send you, but the enclosed is for my subscription." W. E. HUNTER.

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The Laws of Health.

Monthly, 50 Cents a Year.

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OUR PLATFORM.

1. The vital power in the organism is the only healing power.
2. The rapidity and the certainty of cure depend as much upon the degree of vitality—the amount and quality of the vital force—as upon the distribution of it.
3. The symptoms may be changed and the disease often cured by reducing the quality or degree of this force, on the one hand, or by increasing it on the other.
4. Bleeding, purging stimulating, and all drug processes, as also the Water and Diet cures, as usually employed, cure on the former plan,—the plan of depleting the system.
5. The Nutritive-cure, on the other hand, cures only by building up, invigorating, and purifying the organism.
6. The true way to cure invalids therefore, is to distribute the vital force to its appropriate channels by means which shall increase, but never reduce the vital vigor.
7. This is done by the use of normal health agencies, which while equalizing the circulation, in which all nutrition takes place increases the production or manufacture of vitality, and reduces expenditure.
8. The breathing, digestive and circulatory systems comprise the organs of manufacture; while the brain, and nervous systems comprise the organs of expenditure.
9. The organs of manufacture are largely muscular, and depend for the performance of their functions on muscular contraction and relaxation; while
10. The organs of expenditure are mostly nervous, and depletion corresponds to the excitability and activity of the nervous systems.
11. All processes are to be employed to invigorate the muscular systems special and general, while at the same time they tranquilize the brain and nervous systems, thus producing quiet, content and rest.
12. The Nutritive-cure embraces these principles, and by representing a scientific combination of exercising, breathing, bathing, eating, sleeping, resting, clothing, &c., is the only scientific system of medication in existence.

Food versus Medicine.

The people are becoming very shy of the latter, and a large class refuses to patronize the patent cure-alls so extensively advertised. But the ambitious speculator in human life is not to be thwarted; his wants are urgent, his needs clamorous, and a new dodge is invented to delude the unwary into purchasing. He assures the public that his nostrums are not medicines but food. The imposition is successful only because the difference between food and medicine is not clearly defined.

And yet the difference is as great as between life and death, between growth and decay, nourishment and poison. Food is wholly an organic compound, or compound of growth, such as wheat, vegetables, fruits; but chemical compounds are very different, being wholly the result of processes of decay.

To be sure, the same elements are found in wheat that are in alcohol, but in the one we have a living organism or compound of growth, while in the other we have the same elements undergoing a process of decay or dissolution. Fresh beefsteak may be good food, but once it begins to rot and stink it is poison, and yet the elements are not changed, but only the mode of combination. Blanchard with his wheat extract, Austin with his phosphatine, Horsford with his phosphoric acid, if too ignorant to know the difference between their compounds and vegetable products, should be taught the difference by a sterner logic than popular belief. They may succeed in selling their abominable preparations, but the people are deluded to the loss of health and often of life. Let all remember that when a bushel of wheat is compressed into a quart bottle, it is only by the production of chemical changes utterly destructive to the vitality of the article; and that it is no more wheat they have, but a medicine in all respects. Its capacity to be appropriated to the building up of vital organism is destroyed, and it must therefore be rejected by the vital instincts. And the process of rejection is very different from the process of appropriation; the one is medication while the other is nutrition; the one is an active, often violent, effort at self-preservation, the other is a slow, silent, gradual process of growth; the one is an operation visible to the senses and so delusive, the other is invisible, unheard, and is known only by the results.

Medicine is not food even though they both contain the same elements, any more than barnyard products are food for cattle because they are made from the food of cattle. There is a difference between medicine and food just as there is between manure and grain, and Horsford's, Austin's and Blanchard's preparations are as good illustrations of that difference as any other.

Objections to Hygienic Treatment.

Much is to be said in favor of the treatment which we advocate and employ, but chiefly that it is calculated permanently and radically to restore health to the invalid. But there are objections to it which are being constantly reiterated, and which we are not disposed to ignore. The case of a gentleman writing from the West Indies offers a good illustration of the force of these objections. Being in serious conditions of health, he had obtained from us a home prescription; but soon writes again and asks us our opinion of various methods, among them the galvanic battery, Eno's fruit salt, a cooling, effervescing drink, Allen's anti fat, etc. He has been trying these, and wonders if they are going to help him. Heretofore he has not been benefited by them, but is now patiently looking for results. From these facts we judge that he has failed to give our prescription any reasonable trial; and the reason therefore is not obscure, because it is so much easier to pour out a little concoction from a bottle, or to take a few pills, or to do penance in any other manner, than to settle down to the good old-fashioned way of "patient continuance in well doing," that he, as well as the great majority of other people, are disposed to follow the former methods. The business of getting well is a laborious one, requiring patient, persevering effort, so that the majority are deterred from engaging in it except as a last resort. Work is the road to wealth, while gambling is the road to ruin. Something cannot be had for nothing. Great results are not accomplished by a throw of the dice. The way to wealth is by patient, pains-taking effort, continued through months and years. Precisely so the way to perfect health. The man who will commence to live healthfully, refusing all enticements from the line of duty and of right, will come to permanent vigor, but he must not expect that results can be obtained in a day or two, nor should he be discouraged if after months of effort he is yet only better, but not well. It takes time to lay the foundations for successful business for the future; but the foundation must be laid, or a superstructure can never be reared. So a man must live healthfully in order to get good health, and sometimes he must live healthfully for many months before a magnificent physical organization can be reared upon the ruins of a broken down constitution. "Patient continuance in well doing" is the way to health. Let the reader learn to live healthfully, and he will find that nature, and nature's God, that all the laws of the universe are pledged to his success. And just as truly will he find that failure is written in unmistakable characters over every effort that hopes to get well through the operation of any of the short and easy plans, so freely recommended.

Wounds and their Treatment.

"A wound is a solution of continuity in the soft parts, produced by some mechanical agent;" in more popular phrase, any destruction of flesh caused by violent contact with a mechanical agent. This definition gives a good general idea of a subject with which all are more or less acquainted; but wounds have infinite variety from the simplest "cut" to extensive lacerations from persistent violence, and their importance demands a careful examination of the subject in general as well as in particular.

First, we are to consider that all healing power is in the organism, and not in any thing that may be applied to it; and second, that healing will always take place if there is sufficient power and the conditions which will permit healing are supplied. But there are certain facts consequent upon the existence of the wound that must not be overlooked. There will be bleeding, in greater or less degree, according to the extent and laceration of the wound. If no large blood vessels are severed, however, no uneasiness may be felt, for if the wound is tied up in its own blood, the blood will coagulate and plug up all the vessels so

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that bleeding will necessarily cease. If there is a continuous stream of dark blood from any one point it is evident that a vein has been severed, and hence the bleeding must be arrested as soon as possible. Pressure on the side of the wound farthest from the heart will usually be sufficient, and this pressure should be carefully maintained until coagulation is accomplished or healing has taken place. But tying of the vessel may be necessary if it be a large one and a good surgeon should be employed for this purpose. If there be spurts of bright red blood, regular, and coincident with the pulsation, an artery has been severed, and it must be found and tied immediately. A surgeon must be sent for as soon as possible, because bleeding from an artery is a dangerous matter and should be attended to with all haste. While waiting for a surgeon, pressure may be applied to the artery just above the wound, on the side nearest the heart, by the finger pressed upon it, or by tying a cord tightly around the part with a piece of rubber or soft wood, or wad of linen pressed into the flesh over the artery. But by all means stop by pressure the spurting forth of bright red jets of blood, until the vessel is found and properly tied.

Second, prostration, accompanied with fever, restlessness, suffering will follow in ratio with the severity of the wound and the amount of bleeding. In such case the patient must be gently nursed, and allowed as complete rest as possible. The recumbent posture should be had, and all means employed to render him easy and comfortable in body and mind. These general disturbances must be treated in the same way as though he were suffering from them from any other cause, except we are to remember that the cause being local and transient the general disturbance will pass away as the local trouble improves. A sponge bath to cool the fever may be desirable, abstinence from much food, while there is acute derangement of the vital functions, is always important, but fresh air, sunlight, sleep, &c., are to be had abundantly.

The wound should be kept clean, but when once bleeding has ceased it should not be interfered with. The lacerated parts should have been brought together, if necessary, stitches to hold them in place be employed, and cool wet cloths to keep the inflammation from increasing to suppuration be applied. If the inflammation be severe, frequent changes of wet linen are indicated. A certain amount of inflammation is necessary to healing, but the heat of severe inflammation should be carried away through evaporation of moisture kept constantly on the part

If the patient be in healthful condition, the wound will heal by first intention, that is, without suppuration, or any other troublesome consequences. But if the blood be impure, the system devitalized, or the patient keeps himself worn down by exhausting cares, or debilitating habits, suppuration may take place instead of healing, and then we have new conditions to deal with. Suppuration means a destruction of tissue, as a result of a failure of vitality in the parts. Vitality having been withdrawn, the part is yielded up to chemical affinities, and a rotting process takes place. The matter that is formed is poisonous, and if absorbed into the circulation, will affect seriously the general health, prevent the process of healing from taking place, and may produce the most serious consequences. To keep the wound cleansed, therefore, is the next important point of treatment. As fast as the matter forms, it must be taken up and carried away from the part. Washing the parts with disinfectants, such as a weak solution of carbolic acid, chlorinated soda, or a dozen other plans, have been in vogue, but there is nothing more simple and efficacious than the application of dry earth. Soil which has not been much enriched by manure will absorb these matters, just as it will absorb the poisons from a manure heap, and keep the parts clean and healthy. The application should be repeated daily or twice a day, washing it out at each application with warm water.

In spite of all this, it is possible that the healing will be slow and tedious, if accomplished at all. The true way of being successful then, is by building up the general health. With pure blood, healing will certainly result; hence the patient should breathe the purest air, drink the purest water, have abundance of sunlight, good food, bathe three or four times a week, and manipulations, rubbings, or special exercises. Healing, as we said in the beginning, is a vital process, and will be accomplished if there is an abundance of vitality, and the conditions are supplied; and hence to build up the vital system is an important process.

In severe or dangerous wounds there will be severe general disturbance, fever, inflammation, restlessness, pain, sleeplessness, etc. In such cases employ a good surgeon to dress the wound, but insist that he shall not bandage it tightly with dry bandages, huge plasters, etc. Rather keep it moist and cool, nurse the patient, do not urge food upon him when he is prostrated, but wait on nature. It is nature that cures while the doctor takes the fees; and if we had more confidence in nature, we would pay a good deal fewer fees.

The diet of a man suffering from severe wounds should be such as would be useful for any other invalid. While the vital powers are being exerted to the uttermost to prevent destruction, or to carry on healing, the stomach, liver, brain, nerves, and all other organs will be feeble, and hence, care should be taken not to overfeed the patient. Rest is very important. Let him sleep all he can, keep him perfectly quiet, exclude visitors, and wait.

Health in the Household.—No. 2.

By Jas. S. Cooley, A. M., M. D.

The importance of some method for de-odorizing the contents of privy vaults, and converting them into fertilizing material, instead of allowing them to remain in a poorly constructed receptacle, polluting the air for rods around with poisonous exhalations, or contaminating the well which furnishes the supply of water for the family, cannot be over-estimated. The suggestions offered last month upon this subject, if faithfully carried out, would go far towards removing a very prevalent cause of ill-health.

It was remarked that no water-slops from chamber or kitchen should be thrown into the vault, but that these should be taken care of in other ways. In the country, and in villages where there is abundance of room, these slops may be disposed of by making a bin in one corner of the yard, at a convenient distance from the house, into which the coal-ashes are thrown, or in case coal is not used for fuel, a load or two of dry muck. This bin will receive, and, if kept properly supplied with ashes or muck, will wholly absorb the slops from a large family. The contents of the bin should be carted off, and the bin again supplied with ashes or muck, at least twice yearly, and should be covered from the snow, during the winter.

A more expensive plan than the one just suggested, but requiring less trouble in emptying the slops would be to place the receptacle under ground, and convey the waste water into it by a pipe or drain. The pit must be kept well supplied with muck or ashes, as in the other case, and should be emptied both fall and spring. Thus attended to, there would be no necessity for a trap, as there would be no foul gases, the material thrown in serving as a perfect absorbent.

In the city, or in larger towns, the waste pipes should be used for liquids exclusively, and the utmost care taken that the traps are so perfectly constructed, and the plumbing so thoroughly and properly done, that no foul air can escape at any point within the dwelling. Through inattention to this matter, the waste pipes for the over-flow of wash-basins or bathing vats are sometimes allowed to enter the main pipe below the trap, and thus become channels for the free escape of sewer gas, poisoning the whole house.

The disposition to be made of the waste material from the kitchen is a serious question, in many instances. Farmers, and many others, find that a cow or pig or fowls may be kept very inexpensively, by giving them the kitchen garbage; and where this can be done it is advisable. Even if the hens do not supply eggs enough for the table, the year round, they pay for the trouble they cost by eating that which would be deleterious to health

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if thrown out at the back door. If a pig is kept to eat up the kitchen waste, the sty should be properly attended to, and not allowed to become a nuisance, offensive to the nostrils of every passer by. The hog is not an uncleanly animal, naturally, and if abundantly supplied with fresh straw and given an opportunity to keep clean will do so. But many families cannot dispose of the garbage in this manner, and the ash-bin must do instead. The only secret of successfully avoiding all injurious effects from either slops or garbage is to keep the bin covered with a fresh layer of ashes, dry earth or muck.

The Cellar.

A good cellar adds much to the convenience of a dwelling-house. Many cellars are very improperly constructed, being little more than holes in the ground, walled up with stone—dark, damp and disagreeable, and are productive of ill health. A cellar, rightly constructed should be not less than seven feet high, with an outside doorway and plenty of light, the room for roots and vegetables alone being left totally dark. If the soil is wet, or water is inclined to collect, a good drain is very essential, or a cemented wall and floor that will prevent the water from entering. Still more important is cleanliness. All decaying fruit and vegetables should be removed at once and the first room to be cleaned in the spring, should be the cellar. In more than one instance, the neglect of these matters has been the cause of serious illness, gases resulting from decomposition in the cellar having poisoned the air of the living and sleeping rooms above.

The location of the house is no small matter. Many persons in selecting a site for a new house, seem to forget that the health of the inmates may be greatly affected by the surroundings. Low, marshy ground, and the vicinity of stagnant water should be carefully avoided. A slight elevation, with a southern or south-eastern exposure is to be preferred, and the plan of the house such that the living and sleeping rooms shall receive abundance of air and sunlight. Shade trees should be planted, but not too near the building, as they cause dampness to gather, and prevent the entrance of the all-important sunshine.

Having noticed some of the more necessary features of the surroundings of the household, it will next be in order to consider the internal economy of the same.

Sandy Hill, N. Y.

The Wet Compress.

By Robt. Walter, M. D.

This is one of the most valuable as well as the simplest of water-cure appliances, and hence one of the most available means of recuperation by water-cure processes. By the wet compress we mean three or four thicknesses of linen cloth, wrung out of water usually of a mild temperature, and laid upon a part, covered by as many thicknesses of dry cotton or flannel cloth. The compress is indeed a local pack, and answers very many of the indications of the general wet sheet pack. As the general pack is applied

1st. To reduce heat whenever it is excessive;

2nd. To moisten heated and dried surfaces;

3rd. To dilute circulating fluids which have been rendered difficult of circulation because of the evaporation of the moisture; and thus

4th. To soften and cleanse the external skin and sweat glands, as well as to improve the circulation and consequently the nutrition therein; so the wet compress is applied to accomplish these results locally. Wherever there is general fever, with considerably increased heat, the wet sheet pack for 30 to 40 minutes to be followed by a mild full-bath or sponging with tepid or warm water, is indicated, and may be confidently applied; so wherever there is local fever, inflammation, as in burn, scald, bruise, strain, &c., the wet compress is serviceable. If the injury and consequently the heat be slight, the compress may be thoroughly covered to keep it warm, while if they be severe, wet cloths without covering, or even pouring on of cool or cold water, or soaking the parts in water of a temperature most agreeable will be indicated.

The wet compress and even the wet pack are indicated as well when the fever, inflammation, pain or soreness is internal, as when it is external. For the internal skin sympathizes with the external. It is very useful in sore throat of all kinds; in bronchial or lung irritations or inflammations; in liver and stomach derangements; in bowel, kidney or bladder troubles; in sexual debilities and irritations; indeed wherever there is vital disturbance internal or external, the compress may often be applied to wondrously beneficial results. The throat compress needs no particular description; but when the bronchial tubes or lungs are irritated or inflamed, the best mode of application is by a wet chest jacket with arm holes which fits closely the parts, covered by a similar dry jacket or wrapper. But the most frequently valuable appliance of the compress order is the

Abdominal Bandage.

This is made of linen (sheet linen) 1¾ yards long, 9 inches wide, double thickness, which passes twice around the middle of the body, just above the hip bones, and is covered by a dry cotton bandage of equal size and thickness. These may be put on by the patient himself, if not too feeble, and fastened by pins in front. The linen bandage should be wrung out of warm water before being applied, and should be re-wet as often as it dries.

This bandage is very serviceable in most stomach, liver and bowel derangements, and particularly where there is irritation or inflammation; in dysentery it is an important appliance; in typhoid fever also; and indeed in all fevers while there is considerable heat, the wet abdominal bandage is an appliance that is properly continued indefinitely. In chronic stomach derangements we advise its use only at night; but in acute cases it may be worn all the time with benefit. Whenever a patient is feverish, restless or suffering, and yet the symptoms not sufficiently pronounced to induce the application of the wet sheet pack, the wet abdominal bandage may be applied, as a sort of partial pack. It can do no harm in any case unless it keeps the patient cold and chilly, in which case it should be withdrawn. But be sure that it is re-wet as often as it becomes dry, though I would not advise that a patient be waked from a sleep for this purpose. The bandage applied on retiring may be properly worn till morning without change.

Foolish

To think the more a man eats the fatter and stronger he will become.

To believe that the more hours children study the faster they will learn.

To conclude that if exercise is good, the more violent it is, the more good is done.

To imagine that every hour taken from sleep is an hour gained.

To act on the presumption that the smallest room in the house is large enough to sleep in.

To argue that whatever remedy causes one to feel immediately better, is good for the system, without regard to ulterior effects.

To eat without an appetite, or to continue to eat after it has been satisfied, merely to gratify the taste.

To eat a hearty supper for the pleasure experienced during the brief time it is passing down the throat, at the expense of the whole night of disturbed sleep, and a weary waking in the morning.—*Germantown Times.*

In Sunnyslope.

Where the green moss clings to the rough brown rocks,
And the gray old trunks of trees,
Where the dainty ferns in the woodland shade
Are unrolling in the breeze,
Where the ground is spread with a carpet brown
That the birches wore last year,
And the wild birds' song in the leafy boughs
Is the only sound I hear,—
Here my hammock swings in Sunnyslope,
'Neath the branches swaying low [rays,
Screened by leaves o'erhead from the sun's bright
Rocking softly to and fro.

When the summer sunshine is over all,
Till its warmth has filled the land,
Here I idly lie in the shadows cool,
By the zephyrs gently fanned,—
Here I lie and muse in a dreamy way,
What a store of quiet bliss
We might call our own in Sunnyslope,
Were all the days like this;
Were there no more shadow and no more shine,
Were no stronger winds to blow,
Would no autumn days breathe their chilling blasts,
Would no wintry clouds drift snow,

Were the earth for ever and aye in tune,
As it seems to me to-day,
It were easy living the life we ought,
We might follow Nature's way.
But the days grow dreary and dark sometimes,
As the shadows gather 'round,
And the hopes we cherished so fondly once,
Like the dead leaves strew the ground.
The faith will fail and the courage wane—
But weary heart, have hope!
The sunshine will not leave us long;
'Tis so in Sunnyslope.

Estelle Thomson.

Mountain Home, Wernersville Pa.

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Questions Answered.

By Robt. Walter, M. D.

Question 1st. What is your treatment for erysipelas? *2nd.* If it is injurious to vaccinate children, what shall we do when they are not allowed to enter the public schools until they have been vaccinated? *3rd.* Do you consider baked beans healthful food? C. S.

Answer. Erysipelas is the result of a heated and impure state of the blood, consequent upon the retention of excrementitious matters in it. Usually the stomach, bowels, and liver, as well as the skin, are in an unhealthy condition. If you remove the cause, the effect will cease. By improving the circulation of the blood in the surface and extremities, we will have improved action of the skin. Through proper exercises of the bowels, as may be had through kneadings and percussions of them, the bowels will become more active. The liver will sympathize as will also the kidneys, and hence by an increased action of these varied organs, the blood will be rendered pure and erysipelas will subside. In a word, we cure erysipelas by purifying the blood and building up the vital parts. Bathing the body two or three times a week, thorough rubbings and manipulations of it daily, mild exercises, abundance of fresh air, the use of pure water, and health returns. The breathing of foul air, as in unventilated bedrooms, is one great cause of erysipelas; and the use of salted and highly-seasoned foods, especially of the salted meats and fish, is another. The drinking of tea, coffee, alcohol, etc., is another cause; the effects will cease by removing the causes and invigorating the system.

2nd. If my children could not enter the public schools without being vaccinated they should remain out of them, and I am of the opinion they would not suffer much from the deprivation. Though I am in favor of education, and even compulsory education when necessary, I am of the opinion that a child's life is of quite as much consequence as his education, and that if he cannot obtain education without injury to health, a choice of evils is presented, and every parent must decide for himself which to choose.

3rd. Beans that are properly baked are as healthful as any other food; but the pork, salt, and many other things that are baked with the beans, are decidedly unwholesome.

Question 1st. If, when our family is sick, we do not employ a physician, we incur the blame of our friends; especially if the result should be unsatisfactory. Would you advise to ignore the services of allopathic doctors where hygienic ones are unattainable?

2nd. My wife is subject to cramps in the stomach, which seem most relieved by vomiting. What should we do? Would you avoid the use of opium in such case and what would you use instead?

Answer. I am aware that it is a serious matter for a man to take upon himself the responsibility of refusing a medical adviser, even though he knows the doctor is quite as likely to be wrong as right; and all I can suggest is that everybody renders himself so intelligent upon the subject of disease and its treatment, that he can treat cases more successfully than the physicians. No intelligent man will study this journal carefully for one year, without being competent to treat successfully most ordinary cases. "If ignorance were bliss, 'twere folly to be wise," but I suppose that I should do for my family just as you have done for yours; that is, do the best I could and take the consequences, but I should ask all about me to mind their own business.

2nd. I would not give opium for the cramps, but would remove the cause. If your wife will drink abundantly of warm water, and empty her stomach by vomiting, if she will fill her bowels full of warm water by the use of the Fountain Syringe, and repeat the operation until they are cleansed, and then will employ hot flannel cloths laid over the stomach, covered with dry ones, and renew every five minutes, at the same time being sure that the feet and legs and body generally are thoroughly warm, made so if necessary by lying in bed with hot bricks or hot jugs to the feet and legs, or by getting into a hot bath for a few minutes, I will guarantee relief in nine cases out of ten, and that relief more prompt and satisfactory than can possibly be obtained by the use of opium. I have been through this process many times. Kneading and slapping over the stomach is good practice also, but one of the three, or all three of the processes mentioned, namely: vomiting, washing out the bowels and hot fomentations, is the treatment that may be relied upon.

Question 1st. What do you think of the products of the Health Food Company, New York? *2nd.* Are they any more nutritious than Graham, oatmeal, etc.?

Answer. The products of the Health Food Company are as good, probably, as the Graham and oatmeal, which cost much less money and possess about them no air of superiority or of mystery. The Health Food Company will succeed in inducing many people to use their products by the very fact that they are sold at high rates, and advertised extensively as something very superior. The world is always eager to find something great. The plain, simple, yet mighty products of nature and nature's God will not satisfy the average mind.

Question. Can a person practice taking full, deep breaths enough to be an injury to him? If so, in what way, and how can one know how much he can bear?

Answer. Full and deep breathing in and of itself cannot be injurious to any one; but if accompanied with violent straining, pounding or pressure upon the lungs it might produce hemorrhage and so be disastrous. Full breathing, therefore, is always desirable but should not be carried to the extent of strain or pressure. Pounding the chest, which has been much in vogue, will be injurious to many persons, though it may be beneficial to some. Thorough percussions of the abdomen, stomach, liver, etc., several times a day, continued for a minute, will aid the breathing even more than deep inspiration, or percussion on the chest.

Question. What kind of oils are best for inunction, and what rules are to be observed in oiling?

Answer. A pure olive oil is undoubtedly the best for oiling purposes, but I know that some parties use mutton, tallow, and other like greases, which must however be considered inferior to the pure, sweet, olive oil. There are no rules to be observed in inunction, that are not in any other bath. The patient should be warm, and the oiling should take place in a warm room. Let the attendant commence with an arm and thoroughly rub and knead it, the hands of the attendant being made oily, then let the arm be covered, and the other arm be used in the same way, then the legs, chest and abdomen, and finally the back. Thorough rubbing should accompany the oiling, always, for we consider the rubbing to be quite as important, or even more so, than the oiling. If this oiling process could take place under the direct rays of the sun, so much the better, though the patient should be careful not to be exposed to too great heat or for too long time.

Question. My father, 72 years old, with a good constitution, able to do considerable work, is nevertheless afflicted periodically with excessive flow of urine in connection with severe headache, accompanied occasionally with blood and offensive discharges from the bowels. Great quantities of urine are passed during these spells which weaken him much. Occasionally he has been relieved by drinking freely of hot water. What do the symptoms indicate, and what should be the treatment?

Answer. The symptoms indicate an exhaustion, or depletion of the vital forces, and the cure is to come by careful habits of living, complete rest, and freedom from all care and excitement. Possibly the kidneys are involved, but probably the liver is greatly at fault. I suspect, however, that other organs are enfeebled, as the result of hard work, want of proper rest, or the indulgence of some habits that are injurious to health. A general course of hygienic living will do more for him than anything else that I can suggest.

Question. Please give some explanation of the mucous that persons raise from the throat, or wherever it may come from; tell us how it is manufactured.

Answer. The mucous that is hawked up from the back passages of the mouth, and from the throat, forms there as the result of a passive inflammation of the parts. The mucous membrane becomes inflamed and irritated, and mucous is thrown out upon its surface, just as a film is thrown out from the blood over a wound. This mucous is a symptom of catarrh, and catarrh is an inflammation of the mucous membranes of a part. If it be of the head and nostrils, it is the ordinary catarrh; of the stomach, catarrh of the stomach; of the bowels, catarrh of the bowels; of the bladder, catarrh of the bladder. This inflammation is the result of an excessive flow of blood to the internal skin, caused by a checking of the circulation on the surface, from colds, from exhaustion of vitality, or from any depleting causes. The cure consists in invigoration, particularly through improved circulation. Bathing, rubbings, and manipulations of the surface of the body will withdraw the blood from the internal membranes to the surface, whereby purity of blood, vigor and health shall be regained.

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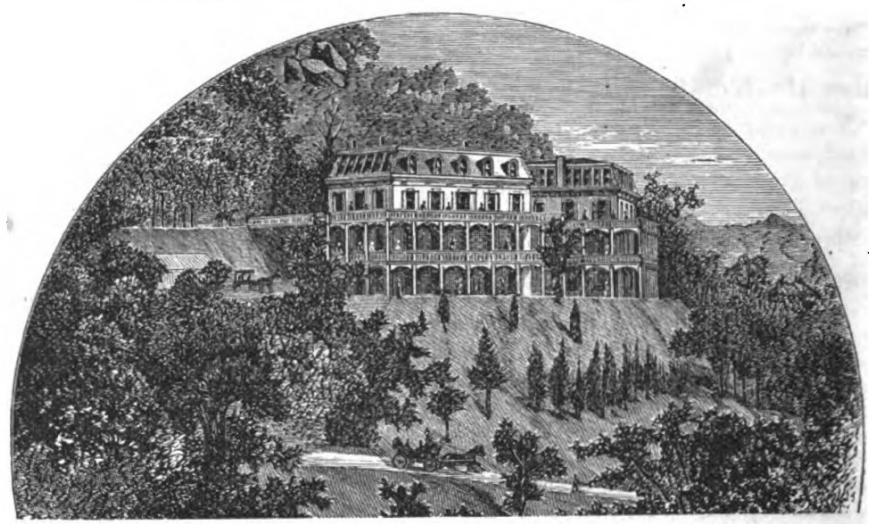

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THE LAWS OF HEALTH.

Health is the normal condition of man. Remove the cause and the effect will cease.

VOL. II. READING, PA., AUGUST, 1879. No. 4.

How the Blood Circulates.—No. 2.

New Practice No. 5. The oxygenated blood, having been returned to the left side of the heart, is now ready for distribution to the general system, and this is accomplished through a system of branching vessels called arteries, in connection with the capillary system hereafter to be described. These arteries commence with the large tube called the aorta, which divides into innumerable smaller arteries, ramifying to all parts. These arteries are elastic, especially the larger ones; that is, possessed of the power to enlarge under pressure and regain their normal size when the pressure is removed; and muscular, especially the smaller ones, which enables them to contract upon their contents.

The question now presents itself, what is the force that carries on the circulation in the arteries. Undoubtedly, primarily, the contraction of the heart, which is repeated every second or oftener, (about 72 times per minute in the healthy adult,) each time two ounces or more of blood receiving a powerful impulse forward, or ten or more pounds of bright red vitalized blood sent forward every minute, for the purpose of building up the general system. This blood is moved through miles of arteries, capillaries and veins, and, though the contractions of the heart, powerful as they are, may force the blood into the arteries, we are led to the enquiry, is the contraction of the heart a sufficient force to carry on this arterial circulation. We believe it is not. The arteries themselves, from the very fact of their being elastic and contractile, furnish much of the power. As each jet of blood leaves the heart, the large arteries automatically open to receive it, and immediately close upon it, thereby greatly facilitating its passage. As it passes into the small arteries it undoubtedly also becomes subject to the same forces which are so effective in aiding the circulation through the capillaries and veins as will be described hereafter.

An important fact to be noted is, that the arteries convey the blood in all directions; upward to the head, latterly to the arms, downward to the lower portions of the body, to the nerves, the nervous centers and brain, to the muscles and bones, sinews and tendons, to each part *according to the needs of that part*, and the influences that are upon it. It is the instinctive tendency of the organism to supply blood to any part in which there is a demand for power, *and in ratio to that demand*, as long as there ability to furnish it; for all vital force is restored through the agency of the circulation, and hence any use, expenditure or exhaustion of this force, necessitates increased flow of blood whereby to supply it. Whatever part, therefore, performs the greatest labor, or suffers the greatest taxation from any cause, receives the greatest flow of blood; and whatever part rests receives the least quantity.

This truth is well illustrated by the results of labor. If we walk we warm the feet; if we use hands and arms we warm them; if we think we draw blood to the head. For this reason a strain, as of the ankle, wrist, back, &c., causes congestion and inflammation of the part; for the same reason severe effort of lungs, as in walking against a strong wind or breathing rapidly very cold air sometimes causes inflammation of these organs; so with bruises, lacerations, &c.; any severe taxation or labor or injury results in increased flow of blood, and if not beyond the power of the part to circulate it, increased nutrition and consequent vigor.

This fact suggests important methods of equalizing the circulation and consequently improving the nutrition and vigor of the organism, and explains the philosophy and results of the varied methods employed by physicians to accomplish this end. Setons, cuppings, blisterings, mustard poultices, &c., produce all their effects on this principle. So also does water treatment as well as exercises of all kinds—blood and therefore vital energy are determined in any direction, and consequently away from contiguous parts by making a demand therefor.

But in order to be successful in this important operation two facts must be borne in mind: first, that a part is strengthened by the blood received only to the extent that it can circulate and appropriate it. If it fails to circulate the blood received, accumulation amounting to congestion takes place, and the vital processes are obstructed and weakened instead of strengthened. Under such circumstances any increased action of a part tends to increase the difficulty rather than relieve it; so that careful discrimination is always necessary whenever we employ any means in order that we avoid overdoing the matter. And we assert that this is one great fault of all the schools, not excepting the hygienic. By doing too much they are ever defeating the ends sought, producing congestion by overtaxation, instead of normal circulation through exercise.

This is particularly true of the *violent* processes named. They overreach themselves. Unbalanced circulation is an ever-present condition of disease. Too much blood in a part—congestion—causes too little blood in some other part—depletion—both conditions being sources of weakness; and strength, health, vigor are to be restored by withdrawing from the parts overburdened and furnishing the parts insufficiently supplied. If this is judiciously done, and not overdone, we have balanced circulation, strength and vigor as the result; but too often the violence of the measures defeats themselves on the following principle:

Second. Any violent or exhausting process will defeat itself by calling up nervous energy in great degree from the nerve centers, thereby causing an injurious reaction to those centers in the attempt to supply to them the power demanded of them. In nearly all cases of disease congestion of the nerve centers is present, as is shown by the existence of nervous debilities, and because of the fact that the nervous systems of the people at large, both sick and well, are so extravagantly taxed by their habits of life—by social, political and business excitements, by the stimulating foods and drinks employed, and above all by the tonics, stimulants, and indeed all other forms of medicine, administered to relieve these congestions. It is astonishing how short-sighted both physicians and patients are with regard to this matter. It would be extremely difficult if not impossible to find a patient whose nervous system has not been overtaxed and whose nerve centers consequently congested; and yet all cases without regard to these facts are attempted to be relieved by processes which call for the still further action of the nerve centers, and hence whatever may be the immediate effect of the appliance, the secondary and permament effect is to aggravate still further the difficulty. No nervous patient was ever cured, since the foundation of the world, by the use of stimulants, tonics, sedatives, &c., or by any other means that appealed directly to the nerves. For though the effect may be temporarily and apparently beneficial, reaction to the nerve centers must inevitably take place in order to supply the power called forth by the application. This is true of water-cure just as truly as of drugs, and true of electricity as well as both. All processes therefore that necessitate reaction to the nerve centers are destructive. They defeat themselves as the result of the principle herein set forth.

Any process of treatment that will be successful must be capable of being applied directly to the part requiring increased flow of blood and must produce

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its effects by direct action, and not through the medium of the part already congested. In nine hundred and ninety-nine cases out of a thousand the nervous systems of invalids are overtaxed and congested, while the muscular systems are insufficiently exercised and depleted; and the congestion of the one is in ratio to the depletion of the other. The most successful treatment therefore consists in appliances directly to the muscular system, but in such way as not to disturb or excite the nervous systems. But indiscriminate exercise is seldom efficient, because the overtaxed part is liable to be taxed still further as well as the depleted part. Any treatment, therefore, which shall be successful, requires first, a careful diagnosis of the actual conditions of the circulation; and second, the application of means which shall develop the parts suffering for want of action and blood, without taxing unduly the parts that have too much blood. By this means circulation is equalized and health and all its glorious capacities and enjoyments restored.

Looking at the subject from this standpoint, therefore, we perceive that muscular exercises, particularly when supplied by an attendant, as in manipulations, and when prescribed to suit the exact conditions of the patients—movement-cure—are the most efficient means of improving circulation. We do not argue that they are the only means; for negative treatment is often as desirable as is positive—what *not* to do as important as what to do. Hence what to eat and drink are to be considered as well as how to dress and bathe and sleep, though for positive results the movement-cure is the perfection of treatment for most chronic and all nervous invalids.

[TO BE CONTINUED.]

Scrofula.—No. 16.

BY J. A. TENNEY, M. D.

White Swelling. This disease is an affection of the articulating cartilages of the joints, or of the synovial membranes. It commences with a slight stiffness or pain upon moving the joint affected, and usually pursues a chronic course; though sometimes it progresses so rapidly as to have the appearance of an acute malady. It is extremely liable to go on until the affected joint is destroyed, and the patient is fortunate if his whole system does not become involved, so as to make him an invalid for years.

The movable joints, as the hip, knee, ankle, elbow and wrist, are most liable to its ravages. The tarsal bones are also extremely liable to be affected by it. It is commonly supposed that the difficulty originates in a strain, and probably such sources of irritation may excite the disease; but oftener the swelling is developed without any external assignable cause. It has its origin in a peculiar constitutional, scrofulous condition, and does not require a strain to produce it, any more than tuberculosis in the lungs or liver. It appears that prolonged exposure to cold, living in damp, ill-ventilated and ill-lighted apartments, and suppression of cutaneous perspiration, are powerful causes of the complaint. These exert their influence by vitiating the blood.

White swellings may occur at any period of life, but they are most liable to affect children under ten years of age. If the hip is affected, the first sign of the disease will be a hitch in the child's gait. The trouble increases, until the joint becomes so swollen, hot, and tender, that it cannot be used. If it appears in the hip, knee, or ankle, it gives rise to great inconvenience, because it interferes with locomotion; but if it affects the elbow or wrist, it is more easily managed.

If the progress of the disease cannot be checked, it permanently destroys the joint affected. In hip disease, the ball of the joint is absorbed, which shortens the limb, and consequently interferes with walking, and produces permanent deformity. The inflammation commences in a manner almost imperceptible, as before stated, and as it progresses, it is attended with deep-seated pain, the parts are very hot, the skin white, smooth and shining, and there is more or less wasting of the tissues. If the disease continues its force, the appetite becomes involved, the patient cannot sleep, the bowels become irregular, and there is a general wasting away of the whole system. If the disease still goes on, the pus, which results from the inflammation, and the consequent breaking down of the joint, is evacuated through the surface, and relief is obtained. After a time the disease will of itself run its course, and the parts will heal. But generally, if the inflammation has been very severe, the joint will become stiffened, and the general health of the patient more or less affected.

But it should be borne in mind that many cases never go on to such a discouraging termination; and it is pretty certain that treatment may be employed, and the habits of the patient may be so controlled, as to avoid the worst results in many cases. The first thing to do is to enforce the most absolute rest of the affected joint in all cases. If it be the hip joint, the patient must be kept in bed until the inflammation ceases. This injunction must be absolute and unconditional, if the patient desires the least chance of overcoming the worst consequences that can follow the complaint. Motion of an inflamed part is the worst irritant possible, and will, of itself, counteract all the good results of any treatment. If the knee is affected, the leg may be bound up with a splint, which will prevent all action of the joint, and the patient may then walk with the aid of crutches. The same plan may be pursued if the ankle or tarsal bones are affected. In tuberculosis of the elbow or wrist, a splint should be applied, so as to enjoin the most perfect rest of the joint until the severity of the inflammation ceases. When the inflammation has subsided, the joint should be moved carefully, to see if any motion in it is possible; if it is possible to move it, this motion can be increased until the use of the articulation is restored.

I have seen a good many cases where children were threatened with the disease, and upon being kept quiet, and the proper treatment administered, the inflammation ceased, and the joint never became affected so as to cause suppuration. In six months or so the swelling disappeared, and the joint was as perfect as ever. Such cases should encourage those affected with the disease to believe that they can recover, if they follow out the right plan of treatment.

As it is a scrofulous condition, and hence is constitutional in its origin, it will at once appear that local remedies alone will not avail anything. The treatment must be constitutional as well as local. If the patient's food has been insufficient, or of poor quality, it should be changed to the most nourishing dietary possible. If he has been confined in poorly ventilated or badly lighted apartments, he should be placed in the open air, and have an abundance of sunlight. The swollen joint or joints should be kept cool with wet compresses, changed as often as they become heated. Above all, the most absolute rest of the affected joint must be insisted on. The other parts of the body should be exercised vigorously every day, to compensate for the enforced quiet. These exercises can best be administered by an attendant, who should thoroughly knead and percuss the sound parts of the body. If there is much general feverishness, packs should be given. If the disturbance is only local, not more than two general baths a week should be taken; but the extremities should be kept warm, and the inflamed joint cool. Such a plan of treatment will prevent the majority of cases from progressing to the suppurative stage, and restore the joint to usefulness.

The Health Food Company's Products.

Our friend Dr. Cooley is not satisfied with our reply to an enquirer in the July LAWS, respecting the Health Food Company. Dr. Cooley urges that the foods of this company are not only not sold at high rates, but considering the quality, quite cheaply, and he speaks from experience on the subject. He says "the pearled oats, pearled wheat, and granulated wheat, are by far the best preparations of these grains which I have ever eaten," and he urges that they are not expensive at ten cents per pound.

We give to our readers Dr. Cooley's opinion on these matters, because of our desire to avoid even a seeming injustice to any man, or to any legitimate business, and because we very greatly respect Dr. Cooley's judgment on all such matters.

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Health Convention.

One of the notable features of Drs. Walter's Mountain Park Health Institute, during the present season, is the Health Convention, which is held in the parlors every Thursday evening. The warm weather of the last week, induced us to migrate to the piazzas, where a very interesting hour was spent in discussing questions of health. Our reporter supplies the following, among numerous others, as valuable, and no doubt it will be interesting to the readers of THE LAWS OF HEALTH.

The discussion of questions relating to health was opened by Dr. Walter, who appeared with a large handful of questions that had been written and dropped into the box, provided for their reception through the day, a few of which we select:

First. Why do you recommend the drinking of water in the morning before breakfast?

Answer. Because a certain amount of fluid is necessary to enable the organism to carry on its functions, and if that fluid is not taken before breakfast it will be very likely to be taken at breakfast, or the person suffer from thirst. And drinking at meals is decidedly objectionable. First, Because it dilutes the gastric juice, and hence, reduces its vito-chemical powers; and second, when largely drunk, digestion is, for the time being, suspended, in order that the extra fluid may be absorbed.

In other words, drinking at meals is objectionable, because the fluid drunk should be absorbed into the circulation through the coats of the stomach; while at the same time, if the party is eating, the coats of the stomach should be throwing out into its cavities the gastric fluid. These two operations contraindicate each other, and cannot well be performed at the same time. Hence, either the fluid will be retained to dilute excessively the gastric juice, or the gastric juice will be retained and the food be not thoroughly mingled with it. If we drink an hour before breakfast the water will be absorbed, the system supplied with fluid, and there will be no occasion for drinking at the meal. Dry food demands proper chewing in order to easy swallowing, and both together are necessary for the comfort and health of an invalid; hence, every patient should eat freely of dry food, which demands thorough chewing, and consequent mingling with the saliva.

Question 2nd. What does it indicate when a patient, having been under treatment at this institution for several weeks, and has followed strictly the rules with regard to eating, begins to be unusually hungry in the evening? Does it indicate that he should eat a hearty supper?

Answer. Increased appetite on the part of the patient who has been under treatment, indicates that the organism is prepared to receive increased supply of food, and being thus prepared, it will digest and appropriate more food, and so the patient is on the eve of decided improvement in flesh and strength. I advise him not to eat a hearty supper, but to eat more freely for breakfast and dinner, and so at these times supply the system with all needed nutritive material. The eating of hearty suppers is decidedly objectionable, even though the patient does feel hungry. If he were to satisfy his hunger at this time, he would find before the morning had come that he had done an improper thing, for restlessness, sleeplessness and indigestion would be the result.

Question 3rd. Are medical men of the old school ignorant, or are they reckless of human life when they advise the use of beef tea, soups, etc., every hour or two? Upon what grounds do you oppose their teachings?

Answer. Upon the grounds that the propriety of a course is to be determined, first, by its effects; and second, by its reasonableness, and if the effects are obscure, we must fall back upon general principles in deciding what these are.

I am opposed to the frequent use of beef tea, because my experience has shown it to be an undesirable food, and if used frequently it is simply a process of stuffing the patient, and it is well known that stuffing processes are not nutritive processes. A man may stuff a turkey until it gets abnormally fat, but he is not foolish enough to suppose that the turkey is rendered any the more healthy by that fact; so a physician may crowd into a patient beef tea, and the patient get weaker and more thoroughly diseased every day.

If you fall back upon medical education, and medical wisdom, thus relying upon the *ipse dixit* of a learned profession, I shall assert simply, that the wisdom which feeds a man a dozen times a day because he is sick, is on a par with that same wisdom which gives him strychnine, arsenic, alcohol or quinine when he is sick; which recommends the virus of the rattlesnake as the best of tonics, and the most sickening filth as the most valuable medicine; and that these instances of medical wisdom are just as important and instructive, as the refusal to give a fever-stricken patient water to drink when he is dying of thirst, or air to breathe when he is suffocating with heat, or water to cleanse him when he is rolled in filthy blankets. Every absurdity under the sun has been practiced in the name of medical science. No superstition is too absurd, no practice too destructive, no teaching too foolish, to emanate from the lips of a medical professor. We repudiate the *ipse dixit* of the schools, just as we have long ago ceased to regard the bulls of the Pope, or the anathemas of the bishops. All practice, medical or otherwise, must stand the test of common sense, of facts and principles, or be repudiated.

Dr. J. A. Tenney responded to the following questions:

Question. Why does young people's hair turn gray?

Answer. Because they have congestion of the brain, or disease of the scalp, or both. The hair turns gray from a lack of nutrition. Inflammation and congestion in the hair follicles first injure the nutrition of the hair, and afterwards often cause it to fall out, the follicles dying and becoming obliterated.

Question. Why do some children grate their teeth during sleep?

Answer. From a disturbance in the nerve centres. Men of nervous temperaments, who use tobacco inordinately, also opium eaters and intemperate people often grate their teeth during sleep. The condition is one of irritation of the nerve centres. If children have sensitive organizations and poor digestion, they may have enough irritation of this kind to produce such a condition at any age.

Question. Are the diseases incident to childhood, which most pass through, necessary changes for their growth; such as mumps, measles, chicken pox and whooping cough?

Answer. That is something like the question, "is it healthy to be sick?" Must a person first be sick, in order to be well? These diseases are caused by impurities ingenerated in the blood in consequence of errors of diet, want of bathing, exposure to cold, and whatever depletes the organism; or they are caused by specific contagion, by taking germs of these diseases into the blood, which have a tendency to multiply, and so cause vital disturbance to expel them. It is as necessary to one's growth to take castor oil, strychnine, opium, or other poisons that cause vital disturbance, as it is to have the peculiar poisons that produce these diseases, no matter how they are introduced. Some time people will learn to live and bring up their children in such a way that these diseases will be unknown. They are purely the result of physiological errors.

Question. What is the best cure for deafness caused by taking quinine when young?

Answer. Quinine has often been given for the ague in the south in such enormous doses as to produce permanent deafness. In such cases there is no remedy. When partial deafness is caused by this drug, it may often be remedied to a great extent, and sometimes radically, by a long course of hygienic living and treatment. Quinine depletes the nervous system, and whatever builds up the general health, will tend to relieve the system of its effects.

Question. Should pork be used as food in any form by healthy people, and what effect does it have on them?

Answer. Fat pork is an abomination, and lean pork is apt to be full of trichinæ. These parasites, when eaten, are extremely dangerous to life. If fat pork is eaten, it passes into the bowels undigested to be taken up by the lacteals, for oily matters are not digested in the stomach. Pork fat is never digested to any degree, and is taken up by the lacteals and absorbed into the blood as fat, and deposited in all parts of the body. Every tissue is weakened in consequence. There is an effort made to expel this devitalized material through the lungs, liver, and other excretory organs. So tubercles are formed in these organs, and also in the lymphatic glands, whose office it is to expel morbid matters from the blood. Tubercles are very similar to the tissues where they are found, but have so little vitality that they break down more easily, and so cause ulceration in the process of their decay; hence king's evil, which consists of abscesses or sores from broken down tubercles in the lymphatic glands of the neck, consumption of the lungs, bowel consumption, and other scrofulous diseases, are often the result of pork eating.

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The Laws of Health.

Monthly, 50 Cents a Year.

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☞ All communications should be addressed to Wernersville, near Reading, Pa., the residence of the editor.

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OUR PLATFORM.

1. The vital power in the organism is the only healing power.
2. The rapidity and the certainty of cure depend as much upon the degree of vitality—the amount and quality of the vital force—as upon the distribution of it.
3. The symptoms may be changed and the disease often cured by reducing the quality or degree of this force, on the one hand, or by increasing it on the other.
4. Bleeding, purging stimulating, and all drug processes, as also the Water and Diet cures, as usually employed, cure on the former plan.—the plan of depleting the system.
5. The Nutritive-cure, on the other hand, cures only by building up, invigorating, and purifying the organism.
6. The true way to cure invalids, therefore, is to distribute the vital force to its appropriate channels by means which shall increase, but never reduce the vital vigor.
7. This is done by the use of normal health agencies, which while equalizing the circulation, in which all nutrition takes place, increases the production or manufacture of vitality, and reduces expenditure.
8. The breathing, digestive and circulatory systems comprise the organs of manufacture; while the brain, and nervous systems comprise the organs of expenditure.
9. The organs of manufacture are largely muscular, and depend for the performance of their functions on muscular contraction and relaxation; while
10. The organs of expenditure are mostly nervous, and depletion corresponds to the excitability and activity of the nervous systems.
11. All processes are to be employed to invigorate the muscular systems, special and general, while at the same time they tranquilize the brain and nervous systems, thus producing quiet, content and rest.
12. The Nutritive-cure embraces these principles, and by representing a scientific combination of exercising, breathing, bathing, eating, sleeping, resting, clothing, &c., is the only scientific system of medication in existence.

"The Doctor Below Stairs."

Such is the heading of an editorial in the *Philadelphia Ledger* of July the eleventh. The article is a very sensible one, and yet the strangest thing about it is that it is supposed to record new ideas. It says, "the doctors are beginning to agree at last," the agreement being that "climate, diet and dirt are the great factors in the production of disease." This statement is true, but that we should have waited so long to have discovered its truth, is amazing, to say the least. The *Ledger* is noted for being a careful, conservative, and common-sense paper, so that all the more is it remarkable that we must chronicle its utterance on these subjects as unusual and progressive.

The "doctor below stairs" is intended to mean the cook, and "Sir Henry Thompson, the celebrated London practitioner, comes down from scientific terms to claim the cook as his ally, and writes his latest prescriptions in the form of recipes." The *Ledger* informs us also that "The Woman's Medical College of Philadelphia had a special course on the therapy of food at its last session," and says "this is the first instance, so far as we know, of any of our medical colleges treating this important subject in so prominent a way and place." Another exclamation point is properly due here. To think that colleges have been teaching for generations how to prescribe drugs, but have never once thought of regulating food, or teaching the science of cooking or eating, is startling. Sir Henry Thompson, in writing his prescription, "urges the fact that too much meat is a great deal worse than too little, and advocates the use of more vegetables and less flesh." This truth has been evident so long that again we are startled, that this eminent physician should only have discovered it at this late day.

But here we have a still more startling proposition made by this editor: "What sort of diet, if any, would ward off yellow fever, is a matter that ought to have engaged the best thought of the medical community since last season; or what prophylactic element to supply the blood, so as to best fight the poison of its germs."

Thus the editor again proves to have more wisdom than the physician. The editor would study diet as a means of preserving life in the hot south; the doctor studies the use of quinine and whiskey and disinfectants. We really suspect that if all the doctors were dismissed from the Boards of Health, and intelligent editors installed, the latter would soon discover how to fight the yellow fever quite as intelligently and succesfully as their supposed better-qualified compeers.

Alcoholic Medication.

We object to alcoholic medication for the very same reason that we object to the use of alcohol as a beverage; for whatever can be said of this substance as a medicine, is said with equal force of it as a beverage, and if the facts will justify its use in the one case, the same facts will justify its use in the other. Alcohol is administered to the sick man *to make him feel better*; it is taken by the moderate drinker for the same purpose, and is most certainly employed for that purpose by the drunkard. It is recommended by the physician in order to make the patient *feel stronger*; for the same purpose it is taken by the moderate drinker and by the drunkard. It is administered to the patient on the supposition that in some mysterious way it supplies to him vital power; it is drunk by the moderate drinker and by the drunkard, with the same indefinite, and even incoherent idea. Hence, as we object to the use of alcohol by the drunkard, or by the moderate drinker, we object to it by the invalid. For the effects of alcohol are the same, whether taken by advice of the physician or by that of the rumseller. It makes the user of it *feel* better; it makes him *feel* stronger; but all human experience has proved, and proved with wonderful conclusiveness, that while it makes him *feel* good and strong, it is actually reducing his power, and bringing about a state of things which every intelligent man must deplore. It is a substance which like most other medicinal substances employed by physicians, is most delusive in its effects, the appearances being exactly opposite of the truth. As it appears to the natural eye that the sun revolves around the earth instead of the earth revolving on its axis, so it appears to the senses that alcohol makes men strong, while the truth is, it is one of the most powerful agencies of depletion and weakness.

A man feels strong or well in ratio to the degree in which he is putting forth strength, the feeling of strength being coincident with the expenditure of strength. Alcohol induces to rapid and excessive expenditure, and correspondingly makes the user of it feel strong, but the expenditure of strength is the very opposite of its manufacture. That which will make a man really strong, is the very opposite of that which makes him put forth his strength. He who eats wholesome food and digests and circulates it, is making for himself strength, but he *is not made to feel* strong by that fact; but he who employs alcohol, or any other stimulant, is made to feel strong by spending his strength, and hence, the stronger he feels as the result of the stimulant the weaker he becomes. No one becomes so depleted in vigor, both morally, intellectually and physically, as the free user of ardent spirits, and he is weakened in precise degree to the extent in which he indulges. If a drunkard, he becomes greatly enfeebled; if a moderate drinker, moderately enfeebled; if an invalid, still reduced in power, notwithstanding each one of these insists upon it that alcohol makes him stronger. Whatever may be said, therefore, in favor of alcoholic liquors as a medicine, can be said with the same force of them as a beverage. If the patient needs a dose, *in order to make him feel better*, is it not equally so of the drunkard who is immeasurably wretched without it? and if its use is justifiable in the one case why not in the other? If it be important for a patient to feel strong even while he is being made weak, is it not equally important that the drunkard, shall be deluded into the belief that he is comfortably strong, while he is being exhausted? And so let us go through all the arguments that can possibly be educed in favor of using alcohol as a medicine, and it will be found that the same arguments can be employed with equal strength, in favor of alcohol as a beverage, not only by the moderate drinker, but by the drunkard. Alcohol is not changed in its nature by being prescribed by a physician, nor because of the quantity administered. If one dose of alcohol contains within it one dram of strength, two doses will have double the strength, and correspondingly by unlimited quantities; and the fact that when used in great degree, men be-

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come weak, is the evidence conclusive that when used in small degree, they become correspondingly weak. The wisdom that gives a man brandy to sustain his strength is the same that draws recklessly upon the bank account in the effort to keep up appearances, until bankruptcy follows; the wisdom that prescribes alcohol to the invalid is the same wisdom that has advocated almost every absurdity conceivable. As it has been proved that patients have been bled to death by the millions through medical advice; have been ruined in health in equal numbers by calomel; have died by the thousands for want of water to drink and air to breathe while burning up with fever, and all as the result of medical wisdom, so it will yet be acknowledged that alcohol strengthens patients by depleting their vitality and bringing about inevitable exhaustion.

Ill-fated Memphis.

If there is any city in the Union that has reason to complain of misfortune, it is Memphis, Tennessee. Only a few years ago the yellow fever made its home there, and the following season the cholera desolated its inhabitants, and these notwithstanding the great majority of the surrounding towns escaped unharmed. Then again, a year ago, in common with the whole South, Memphis suffered terribly; and again, as we write, the yellow fever is making steady progress in that ill-starred city.

Why it is that Memphis should be singled out in this manner, is a question that can be answered, we opine, only by an investigation into its sanitary conditions. Of these, we know little further than it possesses natural advantages for drainage equal to most cities, but that nevertheless the gutters and sewers empty into a small, sluggish bayou, that moves slowly through the heart of the city, exhaling its deadly poison into the atmosphere, to be breathed by the inhabitants. Whether they also drink the water, as well as breathe its exhalations, we are not informed. How much this has to do with the sickness in the city, of course we are not prepared to assert; but that foul water will make foul air, and that foul air is a great cause of disease, we all know. But unfortunately fever-stricken Memphis is soothed in quiet slumber by soft words from those who ought to know better. When the yellow fever broke out in Shreveport and Memphis a few years ago, a solemn conclave of doctors fulminated a decree declaring that the pestilence was not the result of any act of the people, but that it was imported from Cuba; and this, notwithstanding the newspapers gave facts which were amply sufficient to justify the assertion, in the case of Shreveport, at least, that filth was the cause of the contagion. And even now learned men are asserting, with all the energy they can command, backed with the prestige of their position, that yellow fever is neither made better nor worse by sanitary surroundings. They declare that filth is no ally of this scourge, and that cleanliness is no enemy to it. True, eminent sanitarians have steadily denounced the conclusion as erroneous. But men are to be found, nevertheless, in eminent situations, so devoted to whiskey, tobacco and quinine, to hog and hominy, that they are unable to perceive the beauties of cleanliness, or the necessities of obedience. The South, as well as the North, will have to learn that God's laws are inviolable; that the way of the transgressor is hard; and if health and prosperity shall ever come to that unfortunate country, it will have to pay greater regard to the laws of health than it ever has. Cheap quinine will be found to be no panacea. Yearly stampedes, refrigerating ships, and government supplies will be found broken staves upon which to lean. People must study and obey the laws of health. What they shall eat, and what they shall drink, is of first importance. The air they breathe, and the water they use should not be neglected. Even more important are these matters to people living in a southern climate than in a northern, the elements for the production of disease being found in greater abundance in hot climates than in cold; for here the frost, which seals up the pestilence, is had freely and abundantly; while there, the heat develops all manner of germs, depletes the constitution, and renders it an easy prey to foul pestilence. We have little hope that the authorities will succeed in confining the pestilence to Memphis. The whole south is liable to another year of devastating diseases. Yet it is to be hoped that the NATIONAL BOARD OF HEALTH will succeed in developing some theory, and inaugurating some practice that will relieve this stricken people. The nation has committed to its hands a charge that it cannot honestly slight. And if it will remember that God is just, and his laws are never to be trampled on with impunity, it will succeed quite as well as by drawing upon inventive genius for means to obviate results of transgressions. "Obey and live" is the fiat of Omnipotence, while disobey and die, is just as surely indicated.

Hemorrhage of Lungs.

BY ROBT. WALTER, M. D.

This is not properly a disease, but a symptom, and always an alarming one, being symptomatic of an unhealthy condition of the system, and usually of organic disease of the lungs. By hemorrhage we do not mean haemoptysis or spitting of blood, but rather a flow or flux from the lungs through the mouth or nasal passages. A person may spit or hawk up blood from the back passages of the mouth, or from throat or bronchial tubes, or vomit it from the stomach, and yet have not properly hemorrhage at all. So the mere spitting of matter streaked with blood is often of little consequence in itself, and is usually to be treated simply by plans calculated to restore the general health; but a considerable flow of blood from the lungs, especially if of a bright red color, is always an alarming symptom, and should receive prompt and decisive treatment. To this end let us consider that two conditions usually if not always exist in a case of hemorrhage—first, debility; and second, congestion; and any plans that shall be permanently successful must relieve both.

By congestion we mean a distension of the blood vessels, either arteries, capillaries or veins, or all of them, because of an excess of blood in them, and by debility, a weakness of the part from which the blood issues, or of the general system.

In any case of hemorrhage, therefore, the point aimed at is to relieve pressure from the bleeding vessels. This is done by relieving the patient of all labor, excitement, effort, &c.

1st. By lying down. The recumbent posture should be assumed immediately, though the head and chest should be raised slightly above the rest of the body. A quiet, cool room, comfortable bed, with cheerful and encouraging surroundings are very important. Cheerfulness, hope, courage, should be infused if possible into the patient, so that his nerves are rendered steady, and mind soothed and quieted. But before everything, if possible, the surface and extremities should be warmed. With an excessive flow of blood to the lungs there will necessarily be a deficiency in the extremities. The hands and feet are quite apt to be cold, and should be promptly warmed either by placing to them hot bricks or jugs of hot water, or wrapping in hot blankets, or by the hot foot bath. While this is being done the chest should be cooled, and I have found in many cases that a lump of ice moved around over the bare chest has been very serviceable. The sipping of ice-water is also in order, or the holding of ice in the mouth. In addition, while the chest is being kept quite cool, a hot fomentation made by wringing flannel cloths out of hot water may be applied to the spine just between the shoulder blades. With these measures, viz.: rest, quiet, cheerfulness, courage, warm feet and hands, legs and arms, ice to the chest, and hot applications to the upper spine, the bleeding should cease very promptly. When this has been effected, a compress wrung out of cold water should be laid over the chest, covered very lightly and frequently renewed, and may be continued as long as there is danger of a return.

The hot compress to the spine however should not be continued more than ten or twenty minutes. But among all the appliances for distributing the blood to the

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surface and extremities, no plan is more effective, and less likely to produce injurious reaction, than hand manipulations applied to the whole surface of the body. These manipulations should be repeated daily or twice a day, the whole flesh, down to the very bones, being thoroughly kneaded and squeezed. At first however only the limbs should be treated, until as the patient gradually recovers, the whole body can endure a vigorous rubbing. A mild bath, say hand, sponge or full bath at 95 degrees, three times a week, followed by good rubbing is in order; or if the patient be quite weak, less frequently and less vigorously—above all save the patient's strength. Don't let him worry or fret. Keep him quiet, but cheerful; and exclude visitors. As few attendants as possible should be admitted, and business and study should be wholly relinquished.

The diet should be light, and not frequent. Rice, gruels, bread and fruit should be the principal articles. All stimulants, narcotics and drug medicines should be dispensed with.

After convalescence has taken place the patient should remember that he is only half well; that now his real battle for life begins. Unless the lungs can be strengthened and the general health built up a recurrence is most likely, and finally consumption carries off its victim.

Hemorrhage of lungs is not necessarily a fatal symptom, but in the majority of cases, we believe, it ends in fatal consumption. This should not be the case, but is the result of lack of energy on the part of the patient, or a lack of wisdom to take the necessary means for recuperation. Wonderful things may be accomplished for invalids with care, patience, perseverance and good judgment. By these means we have succeeded in relieving hemorrhage, not only, but in producing permanent cure; and we believe the Nutritive Cure is the only system that will permanently cure.

The Vegetarian's Side.

By Robt. Walter, M. D.

There are two sides to most questions, and we agree with our vegetarian friends that they at least have one side of the argument. As our readers know, we have not coincided with the sweeping assertions of the advocates of vegetarianism, nor agreed to the absolute diet which the more consistent of them advocate; but while this is the case, we do not deny that much is to be said in favor of their ideas. They urge abstinence from flesh meats on the ground that flesh meats are unwholesome. This declaration is largely true, if we are to accept the meats generally used as the criterion. Hog meat, under all circumstances and conditions, must be considered unfit for the human stomach, and chiefly for the reason that the hog's habits of life tend to the production of disease in itself which renders the flesh incapable of being made into firm, vigorous and healthful human flesh. The hog is almost invariably scrofulous, because of its omnivorous tastes and gormandizing habits. It swallows, without a qualm of stomach, all manner of filth, which is absorbed with greater or less directness into the blood, and so poisons every portion of the body. In addition, it is liable to be afflicted with the terrible trichinæ, which is not destroyed either by the process of cooking or of digestion, but lives to grow and multiply in the human flesh, as well as in the hog, to the final destruction of the life of the person. But hog meat is, nevertheless, considered by flesh-eaters generally, to be a most excellent food, simply because it is tender and sweet.

It is tender, because it is but slightly vitalized, and sweet because the human palate seems to be satisfied with the nearest possible approach to putrefaction and decay. Beef and mutton are not open to the same objections, unless they have been subjected to the same processes. If we make beef and mutton rich and juicy, tender and sweet, by processes of fattening similar to that employed upon the hog, we get a meat that is little or nothing preferable to pork. Stall-fed meat, especially where the animal has been tied in the dark stall, fed upon cooked grain or slops from breweries, breathing the foul air from the unclean stable and drinking water equally contaminated, is no improvement upon sty-fed pork. Such an animal is thoroughly diseased, and the meat is tender and juicy because of the disease. Feeders of animals know well that if the animal is allowed to exercise, by roaming over fields, breathing pure air and drinking pure water, that the rich and juicy food cannot be had. Healthy flesh is never as tender as diseased flesh. Health means strength, and the strength of an animal corresponds to the toughness of his tissues, but when we weaken the animal we make the tissues tender, sometimes so tender that they will hardly hold together, when we have rich and juicy meat fit to set before the gourmands.

Grass-fed meat, it is well known, is less tender, juicy or sweet than stall-fed; at the same time, also, it is less stimulating, if stimulating at all, and hence less desired by the educated taste of *those who live largely to eat.*

Dr. Dunglison, a standard author, in his work on human life, says: "Animals that are used to much exercise, or that are subjected to hard labor are lean and the fibres of their muscles dense and hard; on the other hand, rest disposes to obesity, and the muscles, not being put so often on the stretch, are comparatively tender." This same author speaks still further of important methods of making rich and tender flesh meats. He says: "At the present day, the fattening of fowls for the markets of large towns forms a considerable branch of rural economy. The mode pursued is to put them into a dark place and cram them with a paste made of barley meal, mutton suet and some molasses or coarse sugar mixed with milk. At the expiration of a fortnight they are found to be completely ripe, but if kept longer the fever induced by the continued state of repletion, renders them red, not vendible, and frequently kills them." He speaks also of "stitching up the eyes, to make the flesh more tender, sweeter and whiter."

Fowls have not alone been stuffed in this way until they have died from the very stuffing, but the finest stall fed beef and mutton in our markets have been subjected to similar processes. Though tender and juicy the flesh is, and very satisfying to the carnal appetite, we leave to our readers to judge of its wholesomeness. Dr. Dunglison give us other important methods, however, of making

FLESH MEATS TENDER AND DELICIOUS.

He says, "Animals are often subjected to some preparation before they are slaughtered; they are commonly kept for a time without food." "In olden times" he says, "The bull was baited, and in England no butcher was permitted to expose bull beef for sale, unless the bull had been previously baited; for whenever animals have undergone great fatigue immediately before death, or have suffered from a lingering death, the flesh sooner becomes tender than when they have been suddenly deprived of life when in a state of health." "The flesh of hunted animals is soon tender, and the flesh of the pig is rendered more digestible by the revolting cruelty of whipping the animal to death;" and in old cook books, receipts for making tender meat by whipping animals to death, were not uncommon. Dunglison further says, "It has long been a custom to cause old cocks to fight before they are killed," and "the Moors of West Barbarry make a princely dish of the hedgehog by rubbing his back against the ground, by holding his feet betwixt two, as men do a saw that saws stones, till it has done squeaking, then they cut its throat."

The reader can readily perceive from these extracts that any process which will exhaust or devitalize an animal before its death tends to make the flesh tender. Excessive fattening does this, as does close confinement in unhealthy stables. So chasing an animal, or putting it to great torture, makes delicious meat for the epicure and the gourmand. But the process of making rich and tender meat is not yet completed as the following from Dunglison shows:

"Nothing tends so much to the digestibility of all kinds of meat as to keep it until evidences of decomposition are about to occur. When meat is cooked soon after the death of an animal it is tough and difficult of digestion, yet if the same meat were kept until putrefaction were about to be

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established, it would be tender and digestible." "Game, in England, is universally preferred by the gourmand when it is even repugnant to the olfactory organs. This repugnance, however, soon ceases, and the *fumet* comes to be regarded as one of the most pleasant anticipations of the future repast." "Venison is never put upon the table until the signs of its having been sometime killed are unequivocal."

"The taste for game in a state of putrefaction requires in a man a true education, but the meat is so much more agreeable that it is soon attained." "By many animals putrified food is preferred and amongst some nations," (Americans among the number), it is eaten as a luxury. "A rotten egg, especially if accompanied with the chick, is highly esteemed by the Siamese." "It might be imagined," Dunglison further says, "that feeding on putrid animals would render the breath disagreeable, but this is not the fact," which is encouraging to our readers. We could fill our space with quotations from this standard author, but we have said enough to indicate the spirit of the gourmand with regard to the obtainment of delightful food. The butcher and the feeder soon learn all the arts by which to please their patrons, and make delicious morsels for their tables, but among the most reprehensible is the keeping of meat until it attains

THE REQUISITE FUMET.

Now it is well known that flesh meats begin to decay immediately on the cessation of life, and the tenderness of meat which comes by keeping it, is always the tenderness of putrefaction, and to eat putrefying food on the supposition that a person is to have health by living healthfully, is an absurdity; and whether the tendency to putrefaction has been produced in the meat by fattening, or by exhausting modes of slaughtering, or by putrefaction after death, it matters not; the material passes into the blood of the person using it with the same tendency to putrefaction that existed previous to its being eaten.

Putrid meat tends to the production of putrid blood, and it is because these putrefying aliments are being used in such great degree by the people that contagious and infectious diseases are so common. Perfectly healthy blood is no field for the growth of the poisonous germs of diphtheria, or scarlet fever, or small-pox, but the gourmand who feeds upon these dainties provided by the skill and ingenuity of man, is always a fit subject for inflammations, fevers, as well as for all contagious and infectious diseases. It will be found upon close investigation, that the fatality of contagious diseases is in close ratio to the habits of the person with regard to eating and drinking. The delicious beef, mutton, or fowl from the stall of the butcher who supplies chiefly or wholly the first families of a city, is food fit only for those who would die the victims of pestilence. If one lives in the country, and eats grass fed beef or mutton while it is fresh and tough, he may be healthful; but to live in the city, and purchase the best beef from the best stalls after having been fatted in dark stables, or put through severe tortures upon railway trains, or bated or whipped to death, is to be victims of disease and early death. Rich and juicy stall fed beef, fowl or lamb, has much to do with the fact that the mortality in the city is double that of the country, that one-half of all the children born in these places die before they reach five years of age.

Dunglison says, "The taste for game in a state of incipient putrefaction, is soon learned, and the putrid food is eaten by some nations as a luxury," all of which goes to explain the following from the same work by this noted author. He says, "At the present day the trail of the woodcock is highly esteemed, and every drop that falls from it in the roast is carefully received on bread." "'This bird' says the *Almanach des Gourmands* 'has so insinuated itself into the favor of refined gourmands, that they pay it the same honors as the Grand Lama, making a ragout of its excrements and devouring them with extacy.'" "The enlarged liver of the goose" [Dunglison] "of which we have had occasion to speak under another head, is in high favor, especially with the people of Continental Europe. When subjected to heat and crammed in a confined space, the liver morbidly enlarged by this artificial process, has been known to weigh one or two pounds." Of course such a liver must be delicious. It would make one's mouth water to think of it. How tender, how sweet, how delightful! We only wish our readers could enjoy in the act of eating, as much of this delicious subject as we do in the act of writing of it.

Questions Answered.

By Robt. Walter, M. D.

Question. Is it objectionable to sleep in a room with the windows open during the summer months? H. V.

Answer. I cannot conceive of the reasons which will induce a man to close his windows these hot days. Houses are built and enclosed for purposes of protection from storms, and certainly in the hot summer months, we would be better without a house than with it, were it not for the rains and the burning sun. I believe all intelligent hygienists sleep with windows open the year round, unless they have provided other efficient means of ventilation.

Question. What is the best food for a person so weak as to be unable to sit up but a very little? He has a good appetite but food does not seem to do much good. Stomach sometimes sour and bowels move only by the use of injections

Answer. The patient should eat just what food best agrees with him, and he must rely upon other measures than food to give him strength. Improved circulation of the blood by rubbings and manipulations and very moderate bathing, is of more consequence than food. If the blood is made into tissue there will be a demand for more food, and if the demand is great there will be increased action of the stomach and other organs of digestion. Bowel rubbings and manipulations would be important in such a case.

Question. I am 65 years of age, good constitution, bilious-sanguine-nervous temperament, but suffer from an affection of the left eye, "the retina being affected;" have been under treatment by a homœpathic physician for nearly ten weeks with not much benefit. The cause of the difficulty is said to be reading a good deal in the street car. Will you now be good enough to answer me the following questions: First, If I bandage my eyes, what kind of goods should I use,—cotton, linen, or woolen? Second, What kind of water,—rain, well or lake water, and of what temperature? Third, How long should I leave the bandage on? Fourth, Is flannel or cotton best for bandaging the body or limbs? Sometimes I feel lame in my back or lower limbs, from fatigue, and put on a bandage of cotton cloth and feel relieved; Fifth, Who is the best recent author on water-cure?

Answer. This gentleman is in the decline of life, and having strained his eye, will be very likely to suffer from a weakness of it during the rest of his life. He should be content, even if he is improved during a ten weeks' treatment. He does not need treatment to the eyes, however, nearly as much as treatment to invigorate the general health. His general health is such as to cause failure from any local appliances. If he could be reinvigorated, his eyes would become stronger, but while there is weakness and consequent impurity, the eye will suffer, no matter what appliances may be used.

If the gentleman means to put a compress on his eyes, he should use four thicknesses of fine linen, wrung out of soft water, and covered by as many thicknesses of unbleached cotton. The bandage may be left on all night, or even longer, being rewet when it becomes dry. If he uses a dry bandage as a support, cotton would probably be the best; but a wet abdominal bandage made of linen, covered with a dry cotton one, put on occasionally, would be of service to him. It should not be worn continuously, however.

As to who is the best recent author on Water-Cure, I would refer him to the Laws of Health as containing the most important hygienic matter that is now published.

An Apology.—We must apologize to our readers for the non-appearance this month of the promised supplement. The pressure of business latterly has been so great that it has been impossible to devote much time to literary work, and perhaps it is as well, for when the supplements do come during the coming fall and winter, our readers will have more time to read, as well as ourselves more time to prepare.

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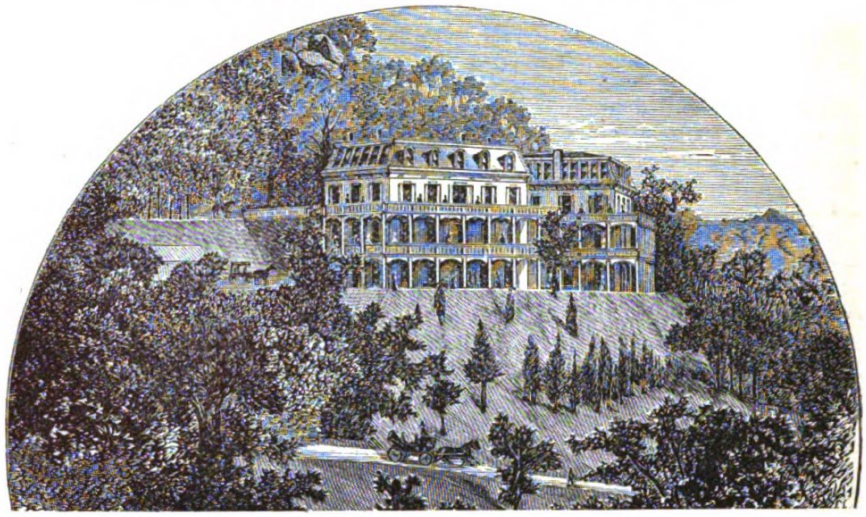

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Health is the normal condition of man. Remove the cause and the effect will cease.

VOL. II. READING, PA., SEPTEMBER, 1879. No. 5.

Invigoration through Circulation.

BY ROBT. WALTER, M. D.

New Practice No. 6. Nutrition is the great end of physical life. Out of it comes all capacity, strength, power; and as all nutrition takes place in the capillary circulation, it will readily be appreciated that the capillary circulation is, if possible, the most important circulation of the organism, the arterial and venous circulations being simply tributary thereto. The arteries and veins are the channels of communication between the organs which prepare food, the stomach, mesenteries, &c., and the organs which purify the blood, the lungs, liver, kidneys, bowels, &c., while the capillaries receive from the arteries the material prepared for use, and appropriate it to the building up of structure, while they take up the worn-out material from the tissues, and deliver it to the veins to be carried out of the organism through lungs, liver, kidneys, skin, &c.

The importance of a good capillary circulation, therefore, can hardly be over-estimated; but unfortunately for man it is, owing to its peculiar structure, one of the most readily deranged of the functions, and consequently faulty nutrition is one of the most common facts of life. Obstructed capillary circulation is about as certain as invalidism is, and the latter usually depends upon the former. To show how this is, let us examine for a moment the structure of the capillaries.

The capillaries are extremely minute vessels, not larger than the hair of the head, which ramify in every direction through all the tissues, even through the bones and teeth, and to the roots of the hair. Wherever growth or nutrition takes place there must be capillaries, for without these there can be no growth, or in other words, nutrition.

Whoever has seen an incision made in the human flesh will notice that the blood first makes its appearance through a great number of small openings, so fine that it is hardly perceptible, until after it accumulates it forms little spots on the incised flesh the size of a pin head, which increasing in size, soon run together, and a continuous stream of the vital fluid follows. These extremely small openings are capillaries, and exist by the millions throughout the body. They form, indeed, a complete net-work, including within their meshes the whole organism. They do not branch and so grow smaller or larger as do veins and arteries; but they inosculate, that is, open into each other and run in all directions. We note also that the passage of the blood through the capillaries is not in any determinate direction, but in whatever way it is most easily conveyed, an important fact to be noted hereafter.

The reader will perceive, therefore, that these capillaries, so fine and delicate and small, may readily become obstructed by the presence of impurities within the blood. A healthful blood, thin enough to be circulated, made up only of the proper corpuscles, will easily pass through these minute vessels, but even the smallest impurities will interfere with this circulation, by obstructing the vessels, and so prevent proper nutrition; and inasmuch as the people are very careless in introducing material into the organism whether it is needed or not, and consequently impurity of blood is the prevailing condition, we surely cannot fail to perceive good reason for the feebleness, nervousness, debility, so common in these days. Obstructed capillary circulation, must cause faulty nutrition, and for want of this of course we have feebleness in varied forms.

There is one condition of ill health especially due to this cause, to which I wish to call especial attention, viz: The ennui, inertia, debility, laziness and generally enfeebled condition of tens of thousands of people who are addicted to what is properly called high living. Such a term is a misnomer; it is the worst kind of living—of low living—because it defeats its own ends. It fails to nourish because the feeding is overdone, not underdone. Every person should eat such food, and as much of it as can properly be prepared, circulated and used in the organism, and *no more*. Every addition obstructs the processes and brings a wearied and suffering condition upon the patient. Whoever would have good capillary circulation should carefully avoid all causes of obstruction; should take into stomach or lungs only such substances as are required for the proper development of the organism;—should indeed eat to live and grow strong—not live to eat. Food and drink and air, which are intended in the economy of nature, for the sustenance of the organism, should be had in abundant measure, but that which serves only to excite, stimulate, and please the taste or indulge habit, should be rejected.

Much has been said in favor of thick blood, but quite as much may be said against it. Much has been said in favor of great quantity of blood, but just as much may be said against it. More people suffer from thick than from thin blood; and those who suffer from the latter, suffer from it as a secondary condition and not as a primary cause. Blood, which is thin, but pure and properly vitalized, will be easily circulated, quickly used, and strength and vigor will result; but if thick from any cause, so as to pass tediously and laboriously through the capillaries, nutrition will be correspondingly obstructed. Sugars, candies, and other sweet-meats are great causes of obstruction and not of nutrition. All spices, including pepper, mustard, common salt, as usually employed, are all injurious condiments, serving no purpose but to obstruct and inflame. Tea, coffee, cocoa, spirituous, vinous and malt liquors, are all excitants and irritants, tending simply to inflame the capillary vessels and so produce dangerous diseases. The capillary system, which is in an inflammatory state as the result of these substances, may at any time be excited to extraordinary activity, by any sudden change of temperature, accident or external injury, so as to produce violent inflammations or fevers; whereas if the blood were pure and the capillary circulation unobstructed, no such inflammation or fever could take place even though the exciting cause were brought to bear.

All experience has proved that overeating is a great cause of ill health; but it is popularly supposed that the evil results from overloading the stomach; whereas the truth is, overloading the stomach is a comparatively harmless operation. It is overloading the circulation that makes the mischief. It is more blood than can be circulated and appropriated, that causes the congestions which produce serious diseases. To overload the stomach is to make a person uncomfortable to be sure, possibly to derange digestion and induce dyspepsia; but by overloading the circulation we have too often obstructed liver, kidneys, brains, &c., sometimes followed by nervous disorders, apoplexy, paralysis, epilepsy, &c. Overloaded circulation is a wonderfully common fact, and produces very dangerous diseases, while overloading the stomach is much less prevalent. Sugar, candies, milk, butter and eggs even, when freely used, tend to the former conditions, while the latter is from the solid and often wholesome foods. To introduce into the stomach an abundance of food of such character as to require vigorous action thereof in order to its digestion is excellent practice; for the vigor of a man's health depends very closely on the vigor of his stomach, and this can only be had by exercising it; and hence difficulty of digestion is no objection to a certain food, provided it can be digested at all. Ease of digestion, on the other hand,

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may be a serious objection, while foods that pass into the circulation without being digested at all, are under ordinary circumstances to be rejected.

One word more as to the foolish habit of stuffing patients in order to make them grow strong. Physician, friends and patient all agree that the latter is suffering from want of nutrition; and immediately, with a senselessness that is marvelous to behold in a man claiming to understand physiology and the laws of the organism, beef-steak, beef-tea, rich food, cod liver oil, &c., is urged upon an unoffending stomach. There seems to be afloat among the people an indefinite idea, that food is nutrition, so strong that the common-sense of the medical man is immediately overborne, and more food is urged, whereas better circulation is what is wanted. Death for want of nutrition is almost as common as disease, but who dies in this country for want of food. Let reason have the sway in this matter, and a new practice will be evolved, and better results obtained. Nutrition takes place in, is the result of, and depends upon *capillary circulation*, and to improve this is to improve that with unerring certainty.

[TO BE CONTINUED.]

Scrofula.—No. 17.

By J. A. Tennet, M. D.

Caries of the Bones. This is a disease similar to ulceration of the soft parts. It consists of a softening, breaking down process, the earthy matter of the bones being separated from the animal, and expelled by profuse discharges, especially when the disease is far advanced. It is most liable to occur in the teeth, the bones of the wrist and ankle, the bones of the spine, the breast bone, and in the articular parts of the long bones of the body.

Caries is most liable to affect children under ten years of age; but it may occur in middle age, especially when there is a syphilitic taint in the system. But the causes of the trouble may be local as well as constitutional. Various injuries, such as blows, kicks, falls, bruises, or fractures often cause the difficulty, because they deprive the bone of part of its fibrous covering, or in some other way interfere with its nutrifying processes. But when the causes are constitutional it is a hard matter to reach, for constitutional changes are difficult to make in such cases; yet the disease may often be much modified, and sometimes radically relieved.

The constitutional causes of caries are courses of mercury, the syphilitic poison, and all the causes of scrofula, which have been set forth at length in former articles upon this subject. Anything that depletes the vital powers to a great degree may induce ulceration of the bones, as well as of the soft parts. In the first stages of the complaint, the bony tissue is simply inflamed, giving it a reddish appearance. After the disease has become confirmed, and discharges have taken place, the bone presents a corrugated aspect, being filled with cavities containing offensive matter. The osseous tissue after a time becomes exceedingly brittle, breaking down easily under pressure made by the finger, and finally it is destroyed.

The teeth are particularly liable to this disease. It commences as a small black spot upon the enamel, which grows larger until a cavity is formed. When this reaches the pulp cavity, which contains the nerve, the tooth aches, and if not remedied, ulceration takes place. Very many pathologists of the present time maintain that the cause of caries in the teeth is purely chemical in its nature, the fluids of the mouth acting upon the enamel and dentine in the same way as acids act upon a dead substance. Others have asserted that the enamel, as well as the substance of the teeth, possesses life power, and the ulceration which affects the teeth is precisely the same as that which exists in caries of the larger bones of the body, having its origin in defective nutrition. It seems strange that such conflicting opinions can be held upon the subject, for it appears evident that the trouble depends largely upon defective nutrition in the teeth, as scrofulous subjects lose their teeth early; and there can be no doubt that an abnormal condition of the fluids in the mouth are great exciting causes of the difficulty; so, in a sense, both views of the case are correct, and the truth lies between the two.

The first appearance of caries in the larger bones is attended with a deep-seated, dull, heavy, aching pain. The part becomes exquisitely tender to the touch, and there is progressive swelling of the part affected. The pain after a time becomes throbbing, and finally the contents of the ulcerated tissues find their exit at the external surface. The discharge corrodes silver, which shows that it contains sulphuretted hydrogen. This is mingled with the earthy matter of the bones, in a state of putrefaction, and has a tendency to corrode the living tissues with which it is brought in contact.

Carious teeth should be carefully watched, and when the disease first shows itself, it should be carefully removed with a file. If cavities have already been formed, they should be excavated with proper instruments, care being taken to remove every particle of diseased bone, and then filled water and air-tight with gold foil. If this is well done, the affected teeth may be saved for many years, if not during life. Decayed teeth may even be saved after the nerve has been exposed and they have commenced to ache, by the process called capping. The nerve is covered with a small piece of cardboard saturated with creosote, or some other disinfectant, and the tooth is then filled. The nerve recedes from the diseased part after a time, and new bone grows over it, thus saving the vitality of the tooth for all coming time. It is the great study of intelligent dentists at the present time to be able to save teeth, and it is wonderful to what extent the saving process has been successfully carried. It may be said that almost every tooth may be saved before ulceration has commenced, and sometimes even afterwards.

The treatment of caries in the large bones is either palliative or radical. The diet should be very plain and simple, and calculated to build up the general system so as make better blood. Exercise in the open air is of the greatest importance to this end. The local trouble should be treated with hot fomentations in the first stages, followed by cool compresses. When the pain is intense, the hot full bath is indicated. After pus has been formed, it should be liberated by an incision, if it is deep-seated and cannot come to the surface. The parts should be washed with a solution of chloride of soda, or other disinfectant, after ulceration has taken place.

The foregoing treatment is palliative. But sometimes the disease goes beyond control in the ankle or the wrist, and then amputation is necessary to save life. Excision of the ends of the long bones is also sometimes necessary to stay the progress of the disease, after its causes have been as far as possible removed; for the disease has a tendency to perpetuate itself from the irritating character of the virus ingenerated. The treatment for the radical cure of this disease is surgical, and so need not be described here. It should be added that if care is taken, and hygienic habits observed, surgery would be robbed of its trophies in the majority of such cases, and their terrible history would never need to be chronicled.

Breathing through the Mouth.

This is, unquestionably, a bad practice. The nose is the natural inlet to the lungs, as the mouth is to the stomach. Through the one should pass the air; through the other, the food and the drink, and though it is possible for organs to perform the duties of other organs, it is never to be commended. The mouth being the receptacle of the food, and the teeth the organs of mastication, are too often by that fact rendered unfit for the process of breathing. To be sure, the danger is partially obviated by perfect cleanliness of these organs; but, inasmuch as the temperature of the mouth is favorable to the process of decay of anything therein, and inasmuch as the teeth are too often allowed to retain between them bits of meat, bread, vegetables, etc., which undergoing a process of putrefaction, exhale poisonous and effete matters, which if inhaled into the lungs by the process of breathing through the mouth, very greatly injures the health. Breathing through the nose, of course, is not liable to this objection, but unfortunately, the blood is

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too often poisoned by the presence of decaying matters that have accumulated in these cavities as the result of catarrh. Catarrh is an inflammation of the mucous membrane, and mucus is thrown out upon any inflamed part, which often becomes dried by the excessive heat and finally decays. When the patient is in such condition, the purest air in the world becomes a centre of disease, because by passing in and out through the organ, it carries these fetid impurities into the lungs, poisoning the fountains of life. Cleanliness of the nostrils, as well as of the mouth, therefore, should always be insisted upon. Whoever suffers from a dry catarrh, should thoroughly wash his nostrils daily, so that matter shall not accumulate and decay. The Fountain Syringe, with the nasal tube introduced into one nostril, and the head held forward, will throw the water through the one nostril, and allow it to flow back through the other; thus washing both out. This process should be repeated daily. A mild disinfectant, say a weak solution of bromo-chloralum may be introduced with the water. This process is even more important than cleansing the teeth, because poisonous matters introduced through the lungs, are very much more dangerous than when introduced through the stomach; but in both cases they are to be avoided by thoroughly cleansing the mouth after every meal, and the nostrils daily.

After all, cleanliness is the first principle of hygiene. Cleanliness is next to godliness. Clean mouths, clean teeth, clean nasal organs, are quite as important as clean yards, clean dwellings, etc. Health is the normal condition of man, but cleanliness is always necessary to health. To cleanse the teeth, the quill tooth-pick should be thoroughly used. Then the mouth should be rinsed with cold water and once or twice a day they should be brushed with a moderately stiff brush that has been dipped in prepared chalk, which can be purchased at any drug store. We believe prepared chalk to be an excellent dentifrice, simple, inexpensive and effective.

Soothing Syrup.

We frequently read of cases where Mrs. Winslow's soothing syrup causes the death of infants. Two doses of this nostrum have been known to cause the death of a child fifteen months old, with all the symptoms of a narcotic poison. A recent number of the *Pharmaceutical Journal* records an instance where ten drops of this medicine were administered to an infant five months old twice a day for about three days; it died from the effects of the poison on the night of the third day. It was shown by analysis that one ounce of this syrup contained nearly a grain of morphia, so a teaspoonful would contain the eighth part of a grain; and when we consider that half a grain is an enormous dose for an adult, we can easily understand the danger in handling such a poison for small children. But there seems to be a certain kind of fascination connected with the use of what is dangerous to life, and we apprehend these warnings will be heeded when boys, and men even, refrain from jumping on and off cars while they are in motion, from which carelessness many deaths are recorded every year.

But we apprehend that the greatest harm arising from the use of soothing syrup for children is not immediate. It can hardly be doubted that the desire for stimulants and narcotics may be formed in this way in the plastic condition of early childhood, that will extend through the years of the child's life. It is generally conceded that childhood takes on impressions much more readily than adult age.

Sir Humphrey Davy, the eminent scientist, inhaled freely nitrous-oxide gas for the purpose of discovering its qualities. As is usual with persons of excitable temperaments who use such intoxicants, he had the most charming visions. Space seemed so extended, and time so infinite, that he exclaimed upon coming out of one of these trances, "Nothing exists but thoughts; the universe is composed of impressions, ideas, pleasures and pains!" By the frequent repetition of this inhalation, he became so infatuated that he could not see a common gasholder, or look at a person breathing, but he would feel an irresistible desire to drink in the delicious nectar, and revel in the resulting artificial, delicious dreams. If such a result follows the use of narcotics in adult age, what shall the effect be of similar poisons in shaping the future of a sensitive, plastic child?

Too Much Bathing.

One of the greatest fallacies taught by the early hydropathic practitioners, and bequeathed by them as a ruinous legacy to posterity, was the idea that it is beneficial to one's health to take a general bath every day. Such a bath may make a person *feel* better; so will a dose of whiskey. Children jump to conclusions from external appearances; they see only the present effects of an experiment, and when disastrous effects follow, they are so far removed from their causes that the relation between cause and effect is not seen. Many grown people reason like children in matters of health, as is shown in the following editorial entitled "Roscoe Conkling's Health Habits," published in the August number of *Health and Home:*

"It is frequently the case that great absorption in public duties induces a forgetfulness of health and its rules. There are certain striking exceptions to this tendency, and one of our New York Senators, it seems, illustrates the better way. According to the Washington correspondent of a Chicago journal, no man in public life takes better care of himself than Roscoe Conkling. 'He is an accomplished gymnast; he practices every day with the dumb bells, and takes a great deal of out-door exercise. He bathes twice a day, and diets himself as if he were in constant training for a prize fight.'"

Now there may be found men who can stand two baths a day, but the rule is that it would make the great majority nervous and sick, and, if continued, would induce permanent invalidism. We are often called upon to prescribe for those whose ill-health is caused in the main by a cold bath in a cold room every morning. Roscoe Conkling is a very strong man physically, and so can stand great physical abuses; and his other habits being so much better than those of men in general, he may be able to take two baths a day and see no ill effects. But let a weaker man follow in his footsteps in this matter, and the result would be a great weakening of his powers, both of body and mind. But what possible advantage can grow out of so much bathing to Mr. Conkling himself? How can it be made to appear that such a course in any way contributes to the firmness of his health?

Suppose we should say, "an acquaintance has recently died at the ripe old age of eighty-four years. He always took the best care of his health, rising early, retiring in good season, drinking about half a pint of whiskey a day on an average, and was invariably cheerful; and to these good habits he owes his long life!" These statements are facts—all but the conclusions. The old man had but one bad habit, and being by nature very strong, the effect of that unfortunate practice was so far counteracted by his unexceptional habits in other respects, that it did not materially curtail his life. But the great mistake lies in copying the unfortunate habits of these men, when the one who does it has not an equal amount of constitutional power to overcome their evil effects. But if a man is ever so strong, he should seek to save his power, not to waste it. Bathing should be practiced for the purpose of keeping clean, not for stimulation. Not even a congressman needs to bathe twice a day for purposes of cleanliness.

The Children's Friend.

The food of the body is properly received periodically, and when just enough, and at the proper time, and an opportunity given for digestion, it does us good. Just so with food for the mind; and periodical literature is one of the most satisfactory ways of educating the people. The newspaper, the journal, the magazine, educate the American people more truly than almost any other agency. The children need a periodical supply of mental food, just as truly as grown persons. They are growing, developing, learning, and what they will come to be is decided very largely by the food that is supplied to them. The best way to forestall and prevent literature of an evil character is to put into their hands that of the better kind, and THE CHILDREN'S FRIEND, an advertisement of which is found in another column, is one of the best mediums for instruction for children of all ages. Beginning with the child just able to comprehend ordinary ideas, all along up to young man or womanhood, THE CHILDREN'S FRIEND will be found a friend indeed. We commend it to our readers as worthy of their patronage. Terms, $1.56 per year.

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The Laws of Health.

Monthly, 50 Cents a Year.

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Editor & Publisher.

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☞ All communications should be addressed to Wernersville, near Reading, Pa., the residence of the editor.

READING, PA., SEPT., 1879.

OUR PLATFORM.

1. The vital power in the organism is the only healing power.
2. The rapidity and the certainty of cure depend as much upon the degree of vitality—the amount and quality of the vital force—as upon the distribution of it.
3. The symptoms may be changed and the disease often cured by reducing the quality or degree of this force, on the one hand, or by increasing it on the other.
4. Bleeding, purging, stimulating, and all drug processes, as also the Water and Diet cures, as usually employed, cure on the former plan,—the plan of depleting the system.
5. The Nutritive-cure, on the other hand, cures only by building up, invigorating, and purifying the organism.
6. The true way to cure invalids therefore, is to distribute the vital force to its appropriate channels by means which shall increase, but never reduce the vital vigor.
7. This is done by the use of normal health agencies, which while equalizing the circulation, in which all nutrition takes place, increases the production or manufacture of vitality, and reduces expenditure.
8. The breathing, digestive and circulatory systems comprise the organs of manufacture; while the brain, and nervous systems comprise the organs of expenditure.
9. The organs of manufacture are largely muscular, and depend for the performance of their functions on muscular contraction and relaxation; while
10. The organs of expenditure are mostly nervous, and depletion corresponds to the excitability and activity of the nervous systems.
11. All processes are to be employed to invigorate the muscular systems, special and general, while at the same time they tranquilize the brain and nervous systems, thus producing quiet, content and rest.
12. The Nutritive-cure embraces these principles, and by representing a scientific combination of exercising, breathing, bathing eating, sleeping, resting, clothing, &c., is the only scientific system of medication in existence.

Yellow Fever and Hygiene.

The claim has always been made by hygienists that the mode of life advocated and practiced by them, is well-nigh proof against contagions and epidemics. The declaration is that if a man lives healthfully as far as his own personal habits are concerned, thereby keeping his blood reasonably pure, and his vital organs vigorous, the contagious poisons will have no soil in which to grow, and therefore the party will be proof against disease. A letter from Memphis, Tenn., is strong testimony to the truth of this position. We quote as follows:

"I am a great advocate of healthful living, of which, I am sorry to say, the majority of mankind are ignorant. Perhaps it may be of interest to you to give a short sketch of my life, as I have passed through three epidemics in this city—Memphis—or at least am passing through the third one, so far unharmed. I attribute my exemption to my way of living, which is peculiar, but I think reasonable. In the first place, I use a great deal of fruit on my table three times a day, and during this yellow fever epidemic, more watermelons than any other kind. I attend strictly to the laws of nature in other respects, and am, so far, exempt from the dreaded disease. Please send me a copy of your paper, and, if I am pleased with it, you may rely on me as a regular subscriber.

G. R. B., 177 Main St., Memphis, Tenn."

We trust that our friend will be able to give us a description of the sanitary conditions about Memphis, and some views relative to the causes and treatment of yellow fever, as they have become evident to him through personal observation. Our readers may expect to hear from him again.

Baths for Home Treatment.

The less trouble and annoyance experienced in taking a bath, the better for the patient, and hence, in home treatment, it is very desirable to devise means which shall fulfill the indications, without seriously taxing the patient, or disturbing the general surroundings.

FULL BATH.

We recommend the full bath as *the* bath for cleanliness, and prescribe and use it very fully in our institution, but it requires a large amount of water properly heated, besides regular bath tub, and varied conveniences, which are not always found, even in excellently built dwellings. The full bath means simply that the patient is immersed completely in water at about 90 degrees, or at any other temperature prescribed, and rubbed while in the bath, one or two minutes by an attendant, and immediately on coming out, has thrown over him a sheet to shield the body from the cold air, and is rubbed dry with that sheet. After being rubbed dry, the sheet is dropped down, and the patient stands on it, and is thoroughly rubbed with the dry hands of the attendant, when he is ready to dress, and follow by exercise, or by lying down warmly covered, for an hour. Feeble patients, instead of having the sheet thrown over them, and rubbed while they stand up, may lie on the sheet on a couch, and have thorough rubbings thereon.

THE HAND BATH.

Sometimes, however, we prescribe the hand bath, in place of the full bath, for home treatment. This consists in placing the patient in bed with his clothing all off, covered by blankets, when the attendant seizes a limb, say an arm, in both hands, near the shoulder, these hands being wet in warm water, and thoroughly rubs from the shoulders down to the hands. The hands are re-wet, as occasion requires. Not more than half a minute should be occupied in wetting the arm. It should then be rubbed dry with a towel, and rubbed, squeezed and manipulated with the dry hands, until in a thorough glow. Then the arm is carefully covered up, and the other arm is put through the same process; then a leg and the other leg; then the chest and abdomen, and finally, the back. Each are wet with the wet hands for half a minute, then rubbed, and thoroughly manipulated until warm and dry. During this process, and previous to its commencement, as previous to all baths, the feet must be thoroughly warm, and indeed the whole body, and the operation should take place only in a warm room.

THE WET GOWN.

But sometimes patients do not have attendants to give them baths, and are required to fall back upon their own resources. The best form of bath I have ever seen for a man to administer to himself is a wet gown. The patient may stand on a warm floor, or, what is better, in a wash-tub, with two inches of hot water in the bottom. Then he should have a pail of water at about 100 degrees, and dipping into it a long cotton, or linen, nightgown, should immediately slip it on, covering the whole body. His arms are thus free to rub himself, while the gown protects him from cold air. He should rub his arms and his legs and his chest and his back, say for two minutes. This rubbing process tends to warm by the exercise. After this process of rubbing has been continued for about two minutes, the patient may seize a pail of water, which he has already prepared at about 85 degrees temperature, and pour it over him, chest, head and back, which thoroughly rinses the whole body. He may then slip off his wet gown and put on a dry one and give himself a rubbing, after which he may rub himself with the dry hand; then, as he has had considerable exercise, he should immediately lie down and cover himself warmly in bed, and go to sleep if possible. He will find usually, that he will have a very delightful glow, and improved health will follow.

TEMPERATURE OF BATHS.

The idea of cold-water bathing was born out of an excited imagination. There is no virtue in cold water in ordinary cases. Hot water, on the other hand, is frequently serviceable, but even this is not to be employed except when specially indicated. The temperature for general baths is milk warm, or about 90 to 95 degrees. The cold-water practice consisted in exciting the nervous system as much as possible through violent shocks, and hence, water of extreme temperatures was employed. The true hygienic practice, on the other hand, seeks to quiet and soothe the nervous system, and to this end employs only mild and soothing temperatures. That which is the most comfortable and agreeable to the patient, is usually the best temperature for a bath.

TIME OF BATHING.

When the general system is in the best degree of vigor, is, unquestionably, the best time for taking a bath, and this is usually in the forenoon, say at ten or eleven o'clock, but, in home practice, it is very difficult to have the day broken up in this way, and hence, morning or evening has been suggested, and frequently tried, as a suitable time. The

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objection to the morning is, that the patient's nervous system is quieted and reduced in activity, and the bath is likely to shock the circulation. Then, too, the room is seldom as warm as it might be, and there is more danger of taking a chill than at other hours. The evening, just before retiring, if the patient retires early, is a good time to take a general bath, provided the patient is not fatigued, or in any way overtaxed or excited. If he is rested, stomach somewhat empty, and he retires early, a bath just previous to retiring will be very satisfactory.

Never take a bath while you are fatigued, or while the breathing and circulation is much disturbed, as after violent exercises; nor while the stomach is loaded with food, or immediately before a meal. Neither should it be taken immediately previous to severe mental exercise, nor after or before exposure to the cold of the winter's day; but at any time the bath may be taken if the circulation is quiet, the room warm, feet and hands of the patient warm, the patient is vigorous, and the stomach is comparatively empty. Under such circumstances, bathing, for cleanliness at least, is good hygienic treatment.

Labor vs. Gambling.

All sound experience teaches that the road to prosperity is through careful, persistent and well directed labor. Through this alone, has come the wealth of the world; through this alone, all permanent prosperity to individuals, societies or nations.

The labor that begins slowly but determinately, is directed by intelligence and ability, and conducted with persistence, brings its natural results, just as truly as the laws of the universe work out, with unerring certainty, the ends of the Great Designer. But though labor is thus successful, it is, nevertheless, often at a discount. Frail human nature is forever seeking some other way to prosperity and happiness, than by the appointed means.

One of the plans that has been much in vogue, is gambling. Though the laws of the universe declare that something cannot be had for nothing, there are, nevertheless, men who will promise to give, and men who hope to receive that which in the nature of things is impossible. The writer of this article believes, that under all circumstances and conditions, gambling is not only immoral, but ultimately unsuccessful as a means of business.

In no department of life is the process of gambling more evident than in the effort of the invalid to recover health. Wheels of fortune are to be found on every street corner with bold and blatant promises that for a dollar a throw, health can be had flowing from the mouth of a bottle, filled with a noxious but secret compound. Millions of dollars are spent every year in advertising these compounds, and millions of victims are duped to the loss of health and life, and yet the process of gambling goes on, nevertheless. Though the invalid has been deceived a hundred times he tries again, only to be still further duped, until reckless and desperate, hoping against hope, and struggling against fate, the inevitable end comes, and the doctor but steps out that the undertaker may be ushered in, and the parson and the tombstone follow as a necessary consequence.

It is easy to sell a decoction which all over its very face is written the lie, because it promises to be an easy way to regain that which was lost by the carelessness or the sinfulness of the individual, while the only natural way of recovering health by healthful living, is cast aside as expensive and laborious. Obey and live, is the declaration of Omnipotence, but, nevertheless, infinite ways are sought to evade the just decrees of nature and of nature's God, and none are more repugnant to an enlightened judgment than the plan of swallowing poisons that health may come—than the plan of doing evil that good may result.

We assert as the result of an experience that comes to men not often, that good health never yet came from swallowing nauseous compounds. Though we agree that *diseases are often cured* thereby, they are cured only upon the principle, as laid down by eminent physicians, of "curing one disease by producing another." The late Dr. Hall, of *Hall's Journal of Health*, an intelligent and progressive physician, declares, "medicine, even the mildest, is essentially a poison, and effects a desired result in proportion to its poisonous qualities; it cures by setting up a disease greater than the original which it seeks to cure," but as it can be bought for a dollar a bottle, the venture is made though the failure occurs ten million times out of ten million.

The plan of recovering health advocated in this Journal, is by living healthfully, by patient, persevering, pains-taking labor. There is no chance, or game, or speculation connected with it. Every step is taken intelligently, and every part of the process is demonstrated to be both reasonable and successful. Time and labor and money are requisite to be sure, but they are no more requisite than to accomplish any other valuable result. As the farmer expects to be successful in his farming, only by patient, pains-taking labor, continued through months and perhaps years, so we hope to restore even desperate invalids, through like processes. But though a certain invalid may be cured in a month, is no evidence that another can be cured in a year; or that one fails to be cured in a year, does not argue that he cannot be cured at all. Some crops will come to maturity and produce fruits in a month or two, while others require twenty years; but the one is just as certain as the other. As physicians, we are from day to day curing invalids: some have the work completed in a few weeks, while others require months, and some require years; but whether weeks, or months, or years, the truth is the same. By patient pains-taking labor, the work is accomplished. Just as the mason completes the wall, as the builder frames the house, or the machinist constructs the engine, so every stroke produces its result, every step is scientifically certain, every process is as reliable as human efforts are in any department of life. There is no chance, no speculation, no gambling with the processes which we employ. The system is scientific, as well as successful, and being successful at all, it is *invariably so* when the conditions are supplied.

Chronic Inflammation of the Mucous Membrane.

This is one of the commonest diseases known to the American people. Indeed it is so common that it is difficult to find a person who does not suffer from it in greater or less degree. When it is of the membranes of the nose and back passages of the mouth, we have nasal catarrh; when of the throat, we have laryngitis; of the bronchial tubes, bronchitis; of the stomach, a distressing variety of dyspepsia; of the bowels, constipation, or possibly, diarrhoea; of the kidneys, derangement of their functions; of the neck of the bladder, frequent, and perhaps painful urination; of the uterine organs, female diseases, etc., etc.

This inflammation may extend over nearly the whole surface of the internal lining of the various organs, or as is usually the case be found upon some particular organ, while the other parts are comparatively free.

To understand the pathology of the case and its treatment, let it be understood that the mucous membrane is but an extension of the external skin; the mucous membrane being the internal skin, while the *derma* is the external. The mucous membrane, as well as the true skin, is undoubtedly, an organ of excretion, so that when the functions of the external skin are feebly carried on, the internal skin is often called upon vicariously to do the work. Most certainly is it a fact that any obstruction in the functions of the external skin, throws the labor back upon the internal skin, by this means increasing the flow of blood to it, and causing inflammation. Whatever, therefore, will obstruct the external circulation, as exposure, cold, dampness, want of proper clothing, etc., disposes to internal congestion and inflammation, and disease of the mucous membrane.

An important fact to be noticed in this connection, is that whenever there is inflammation of this internal membrane, a

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mucus is thrown out from the blood in the attempt to cover it. Nasal catarrh is an inflammation of the mucous membrane of the nose, but as a result mucous discharges are greatly increased, and often dry upon the surface and become very offensive. Croup is an inflammation of the larynx, and the membrane which is so dangerous is similar to the membrane of nasal catarah, the only difference being that it forms upon the windpipe, and, becoming detached by the process of inhalation and exhalation, is often thrown across the trachea and strangles the person to death. The inflammation of croup, however, as well as of diphtheria, is acute rather than chronic, and the effects are more rapidly produced. Mucous inflammation may extend into the bronchial tubes, and into the air cells of the lungs, causing bronchitis and even consumption. When of the stomach, it is sometimes denominated catarrh of the stomach; and of the bowels, catarrh of the bowels. Piles is undoubtedly connected in some sense with this condition.

The treatment employed by different physicians is more likely to increase the difficulty than reduce it, or if it doesn't increase the difficulty in the part treated, it is very likely to cause metastasis to some other part, and perhaps endanger the patient's life. Many of the catarrh remedies are fearfully dangerous, in that by curing the catarrh, consumption follows as a consequence. I have known many cases in which the cure of catarrh has ended in pulmonary consumption.

Precisely so it is with inflammation or ulceration of the uterus. Women by the thousands are being sent to their graves every year because of being cured of uterine diseases through the agency of caustics, or astringent washes, which transfer the inflammation, and consequent ulceration, from the uterine organs to the lungs. The cure of piles has often been followed in the same way. Not unfrequently, however, the inflammation is driven from the organ treated, to the stomach or liver, and chronic invalidism of a worse form is set up.

There is only one process of curing inflammation of the mucous membrane that is admissible, and that is by establishing a good external capillary circulation and consequently good nutrition, by which the external skin becomes strong and vigorous, and can easily perform all its functions. When this is done, the internal skin is relieved of its excessive labor, and the inflammation consequently subsides. Every man or woman who has chronic inflammation of the mucous membrane, suffers from a poor circulation to the surface as a consequence, and to restore the latter is to relieve the former. Moderate bathing, according to the vigor of the patient, which in most cases will not admit of more than two or three baths a week, from about 90 to 95 degrees of temperature, with thorough rubbings, is indicated. Other days hand manipulations, in which the whole flesh of the body is kneaded, rubbed, squeezed, is very important. Movement-cure exercises, as described in Taylor's movement-cure, are equally serviceable, and these when connected with proper diet, pure air, and freedom from care and anxiety, will in the great majority of cases, effect a cure, or where a cure is impossible, will benefit the patient to the fullest extent.

Explained More Fully.

Our friend H. F. Meyers, of Mount Washington, Baltimore, desires to explain more fully his position on the subject of vegetarianism, as he thinks that we have misconstrued it in our remarks in the June number. We would be glad if it were possible to give his letter in full, but as our space will not permit, we extract so much of it as will put him right before our readers. He says, "I am neither objecting, seeking a controversy, or defending vegetarianism, but simply and only, in quest of information," and his letter to us was for the purpose of obtaining our views on the subject. He says further, "We do not consider ourselves vegetarians at all, as vegetables are but a secondary in our dietary, the grains, fruits, and milk being the principals."

In all respects this gentleman has shown that he has been following a moderate, careful and consistent course of life, and as we have previously said, has obtained good results thereby. We commend his practice to all our readers, except in one particular—he uses *milk* freely, which we believe he will ultimately discover to be a very poor food. He says further, "To my enquiry as to whether you do not consider the human system in its normal condition, better without, than with flesh diet, I should like your candid opinion." Our candid opinion is, that the vegetarian was the original diet of man, and that if the human race had through the ages restricted themselves to the use of plants and seeds, instead of roaming through the animal kingdom in quest of food, the world would be the better for it. Our objections to the rigid vegetarianism advocated by some, are the results of large observation and experience among those who have made the change from the mixed diet to exclusively vegetable food, including, of course, fruits and grains. Violent changes are always disastrous, and our argument against vegetarianism has been more because it institutes a violent change, than from any other consideration. We are practically vegetarians, or nearly so, using flesh meats but sparingly, milk and butter not at all. But while we believe in this moderate course, we have discovered that the extreme position advocated by some is not tenable. It is useless for a man who is not a vegetarian to argue in favor of vegetarianism, and inasmuch as nearly all the advocates of vegetarianism fail themselves to follow out their system, it were wise for them not to urge it. Why call a plan of life by a certain name, when that name misleads the people. Our friend Meyers says truly he is not a vegetarian, and I suggest that the results of his practice are not to be cited as favoring the propriety of that system. Whatever his theory may be, his practice is moderate, and to a certain extent correct.

At Rest.

All day I lie at rest beneath the trees;
I hear the whirr
Of wings above, where birdlings build and brood;
The saucy stir
Of squirrels frisking through the last year's leaves;
And catch the hum
Of busy labor in the harvest fields;
While gently come
The varied sounds of winds among the boughs
That wave on high.
The sunlight shifts its beams from east to west,
The clouds sail by,
And idly watching thus their changeful forms,
I seem to feel
New health and strength through every fibre thrill;
The roses steal
To cheeks that lost their bloom in days gone by;
And eyes grow bright;
And with the truer life that thus is wooed,
The heart grows light.
O spirit of content be ever mine!
With longings vain
I often sigh for some great work to do,
Some goal to gain.
So hard it is to put aside regret,
And idly rest!
But He who wills I must not work to-day,
Knows what is best.

ESTELLE THOMSON.

Mountain Park Home, Summer, 1879.

Dandruff.

"How can I get rid of dandruff?" is a question that agitates many minds. It may be removed temporarily, as every one knows, by the free use of the comb and brush; but the question is, how can we remove the tendency to its recurrence?

It is impossible to permanently remove this or any other disease successfully, unless we remove its causes. The difficulty is caused by enfeebled digestion. The food passes into the blood imperfectly vitalized, and as it is unfit to be made into healthy tissue, it must be expelled from the body; hence, a larger portion of the blood than is normal passes off in the perspiration, and is lodged upon the skin. Consequently, persons with feeble digestion need to take baths oftener than others, to remove this effete matter, which accumulates upon the surface. The clothing absorbs these matters to a great extent, but the hair cannot do this; hence it remains upon the scalp in the form of dandruff. The only way to remove the tendency to the difficulty is to improve the digestion of the person suffering from it. At the same time, the morbid accumulation should be removed carefully with a soft brush and cold or tepid water. Hard brushing irritates the scalp and injures the hair.

If the person affected has a sedentary employment, he should be as much as possible in the open air. Those who have a mental temperament, and consequently are apt to live by the exercise of the intellect, are more liable to be troubled with dandruff than others, because they are feeble in vital power oftener than otherwise. Life in the open air, exercise which will develop the entire muscular system, freedom from anxious care, and from everything that tends to cause the blood to accumulate in the nerve centres, with the most nutritious food, will cure all ordinary cases.

[Extract from "*The Mirror*," Volume 24, p. 12, date 1834.]

"No Doctor, No Death."

"Inglis in his account of the Channel Islands, Jersey, Guernsey, Alderney, &c., mentions that at Serk there is no doctor, and in the years 1816 and 1820 there was not one death in the island, containing a population of five hundred persons, and that on an average of ten years, the mortality is not quite 1 in 100."

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Questions Answered.

By Robt. Walter, M. D.

Question 1st. Is an ordinary pipe-hole in a chimney, kept constantly open, sufficient to ventilate the sleeping-room in the winter?

Answer. No; unless there is a powerful draft through the chimney, and even then a hole at the top of the room is seldom sufficient. In order to decide as to the proper ventilation of a room, we must know its mode of heating. If heated through register from hot-air furnace or steam radiators, there should be a ventilator from the floor into a hot-air ventilating shaft, so as to draw the cold air out as fast as the warm air comes in. I purpose to write an article or two on this subject the coming fall.

The Flesh-Meat Question.

Question 2nd. Do you consider the toughest part of an animal healthier than the more juicy and more tender portion of the same animal?

Answer. No; toughness is no recommendation to meat, but the flesh of a healthy animal, though more or less tough, is not to be discarded for the flesh of the diseased animal because it is tender. Our practice is to supply our table, and eat ourselves, only from the sirloin, rump, and rounds of the beef, and from the hind quarters of lamb, etc., but we do not seek beef so fatted and diseased that the fibers can hardly hold together.

Question 3d. Ought a particle of meat to be swallowed that cannot be thoroughly masticated?

Answer. Latest experiments have proven beyond all doubt, that the digestibility of flesh-meats is not at all improved by mastication. The carnivorous dog does not masticate his meat, and if supplied to him cut into fine pieces it is not as readily digested and in some cases not at all. Saliva is necessary to digest starch, but as there is no starch in flesh, the saliva is not required, and flesh-meats are not at all improved by mastication. At least so say the latest authorities as the result of experiments which seem bona fide; and the conclusion is reasonable. With vegetable food the case is different, and mastication important.

Question 4th. Suppose one cannot obtain meat in just the proper condition, is it better to go without?

Answer. I would do without flesh-meats for an indefinite time, if I could not get them from healthy animals. Better suffer for the material, than to supply your system with diseased material. It is not necessary, however, to abstain totally. Healthful flesh-meat can be had if men will take the pains to get it.

Question. What shall we do to strengthen the abdominal muscles?

Answer. Exercise them. Exercise is the great strengthener for any muscles. The best exercise for invalids is kneadings and percussions, administered by an attendant. If these cannot be had, knead and lightly pound the bowels yourself, and take other exercises, such as lying on the back and raising the legs to right angles, slowly, three or four times. You ought to have Taylor's Movement Cure, which will give you all needed information.

Question. What is the effect of tincture of iron on the system?

Answer. To irritate the nerves throughout, so producing a tendency to inflammations and especially to congestion of brain.

Catarrh.—A correspondent enquires how to cure catarrh; also, how to increase the capacity of the chest, etc. To all of which we answer that catarrh will be cured by restoring the patient to good health, and the chest must be increased in capacity in order to succeed in this. Taylor's book on movement-cure gives descriptions of the best movements, and of the best possible means of increasing the chest, and so increasing the vigor of the organism. We commend it to this young man. It may be ordered from this office. Cost, $1.50.

Alcoholic Medication.—*Question.* In the article in the August number on alcoholic medication, you speak of its use taken internally only. What do you think of its application to the skin, after a bath, for instance, as in a case of hemorrhage, or in chronic nervous disorders and great prostration of the physical powers?

Question 2nd. What do you think of gentle kneadings of the bowels, as well as kneadings of the extremities, in case of hemorrhage of lungs where constipation or looseness is also present? M. C.

Answer. The alcohol administered through the skin, is not one whit changed in its character thereby. It is a stimulant and an irritant poison, no matter whether taken by the mouth, or applied externally. And when applied externally, it produces really more injurious effects than the same quantity taken internally. By introducing medicine into the stomach, the effects are somewhat neutralized by mingling with the mucous secretions, but when introduced through the external skin, the sensitive nerves become greatly excited, and the highest degree of stimulation is obtained. Possibly, however, there is one advantage in the external application of alcohol in some cases; that the effect is primarily local, and only secondarily general, while if applied through the stomach, the effect is general. Local stimulants may, in some cases, be admissible, while general stimulants are seldom, if ever, to be used; and then other means than poisons should be found.

Question. I have read your advice to the lady who was preparing to attend lectures, and the next question is, after one has become a skilled physician how will he commence practice so as to be successful, and will a hygienic physician succeed in the way common with drug doctors? Do you want agents for the book called Sexual Science? Also, can a physician supply the health agencies outside of a health institute, and must he fight the medical profession of all schools? The people are slow to believe, and meanwhile the physician must live. J. M. R.

Answer. There is no doubt, whatever, but that a thoroughly skilled physician, possessed of natural abilities for treating the sick, will find abundance to do within the borders of the hygienic system. Of course it will require more perseverance, energy and practical ability, added to patience, in order to succeed in the new plan than it would in the old. The old paths are beaten and easily trod, while the new are often rough and thorny. But it is not necessary for a physician to engage in any conflict with opposing schools. He can simply go along and practice his system, without reference to others. If the editors of this journal choose to oppose false theories, and urge the inconsistencies of opposing systems, it is because we feel ourselves strong enough to combat errors as well as to advocate the truth. The hygienic physician with intelligence, education and good judgment, cannot fail to be successful either in home practice or in an institution. And institutions like our own will begin to multiply very rapidly now that they are proved successful, and physicians to labor in such institutions, as well as practice in the people's homes, are greatly needed. We could employ one or two additional ones ourselves.

Question. How is nutmeg for flavoring?

Answer. We have no objection to the flavor, but we have serious objection to the effects. Nutmeg is a stimulant to the digestive organs, and consequently is depleting and exhaustive.

Question 1st. Can lime water be healthful, used in milk to render the milk non-constipating for a dyspeptic, as advocated by some?

Answer. No; lime is a medicine, and not a food, and any effect that it has upon the stomach is a medical effect, and therefore objectionable. Milk should not be used at all by a dyspeptic, either with or without lime-water. It is one of the most unwholesome foods to all persons suffering from liver or bowel diseases. The senseless cry of foolish agitators as to the great value of milk as food, will defeat itself, the facts being so thoroughly opposed to the theory.

Question 2d. What would be your treatment in a case of loss of voice of long standing, caused by straining the voice while recovering from hemorrhage of lungs?

Answer. I should restore the general health, and having done this, would expect the voice to return. An occasional electric current to the parts might be serviceable, or a wet compress worn over the throat and bronchial tubes during the night for a length of time, might be beneficial; but restore perfectly the general health, first, and all these ailments which naturally follow will be relieved.

Question. A child of two years had scarlet fever last March which did not break out, and he has suffered from it ever since. What can be done to bring the humor out of his system?

Answer. The child is in ill conditions of health because of suppressed external circulation, and is to be restored by improvement in this direction. Read carefully my articles in this journal, entitled invigoration through circulation, and you will gain the best possible ideas on this subject. The child should have two baths a week, in mild water, should be thoroughly rubbed every day, should have plenty of fresh air, out door exercise, abundant sleep, good food; in short, all the processes of the nutritive cure should be employed, whereby to produce complete invigoration.

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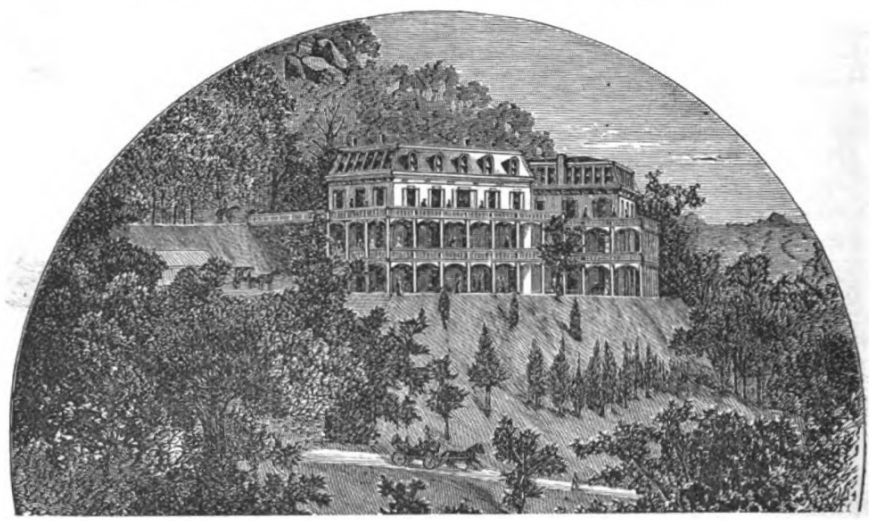

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The question is often asked, When is the best time to commence treatment? and our invariable answer has been *when you are sick;* but it is fortunate if the convenient season happens to arrive in the early fall. Fall and winter treatment is by all experience the most successful, and the earlier the better. Physicians, officers and helpers are as a rule more vigorous, and usually less taxed during these months, and hence can give the best care and attention, while the pleasant cool weather allows abundant opportunity for rest. And while we have every arrangement for protection from excessive cold, no plan has yet been devised to reduce excessive heat.

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THE LAWS OF HEALTH.

Health is the normal condition of man. Remove the cause and the effect will cease.

VOL. II. READING, PA., OCTOBER, 1879. No. 6.

Invigoration through Circulation.

BY ROBT. WALTER, M. D.

New Practice No. 6. But over-eating, and the eating of improper food, though great causes of obstruction in the circulation, and consequently of faulty nutrition, are not the only causes. Ingenerated obstructions are quite as frequent and injurious as those which are introduced. Improper food, both as to quality and quantity, is generally the *first* great cause of obstruction; but faulty action of the organs of excretion, as the result of feebleness of them, almost certainly follows the primary cause. Good circulation, and consequently good nutrition are necessary to vigorous action, so that when circulation is obstructed and nutrition of the organs of excretion lessened, these fail to perform their duties, and obstructions accumulate with very great rapidity, until positive and dangerous diseases are developed.

The organs of excretion, namely, those which are intended to take out of the circulation, and carry out of the organism the impurities which are natural to them, are liver, kidneys, skin, bowels, lungs, etc., and faulty action of these, resulting from enfeebled conditions of them, is one of the greatest causes of impurity of blood, obstruction of the circulation, and consequently poor health.

No organ of the body becomes more readily deranged from the effects of improper diet than the liver. Being itself an organ partially devoted to the preparation of food for use in the organism, it more readily becomes obstructed from the presence of improper food. Certain substances, such as butter, grease, sugar, albumen of eggs, etc., being absorbed, pass directly into the portal circulation and through the liver, where they undergo certain changes in order to make them at all fit for use, and, inasmuch as these substances are employed by the people in general, greatly in excess of the needs of the organism, bilious conditions are inevitably established, obstructions in the circulation take place, and general enfeeblement is the result. It is a question whether sugar and butter are food at all, and we certainly are warranted in saying that the extent to which they are used is in violation of all good dietetic rules. The use of candies by children and adults, is an outrage upon the human organism, unquestionably, in connection with the others, rendering the person a fit subject for rheumatic, gouty and inflammatory diseases.

Rheumatism is a disease generally understood to be caused by the presence of lactic acid in the blood. This acid, being an irritant poison to the tissues, and an obstruction to the circulation, produces exceedingly painful symptoms whenever present in excess. If the reader will read the article in the present number on rheumatism, by Dr. Price, he will see how sugary and starchy substances when introduced in excess of the needs of the system, and beyond the capacity of the liver to use, produces this troublesome and dangerous disease.

The kidneys sympathize with the conditions of the liver so that if the latter fails to perform its functions, the former are immediately affected, and various diseases, due to the presence of impurities within the circulation that should have been taken up by the kidneys, are the result.

The skin is not less liable to a failure in its functions than liver or kidneys, and yet it is, if possible, a more important organ of purification than either. It is, indeed, one of the great natural outlets for the impurities of the system. A grown person passes off, probably, two pounds of perspirable matter every twenty-four hours the process continually, though insensibly going on. These matters, if retained, produce untold mischief; and as a failure on the part of the liver necessitates a failure on the part of the skin, (for the biliary impurities which the former should have taken up and disposed of, float into the sweat glands, obstructing their operations), it is readily perceived how improper food causes a great variety of diseases. It is to be noted, also, that whenever the liver fails to perform its functions and bilious conditions are established, there is a retrocession of blood from the skin to the internal organs, thereby enfeebling the skin for want of blood, and obstructing the internal organs because of excess of it. Still further, under such circumstances, the person becomes exceedingly sensitive to changes of temperature, which, by checking the external circulation produces colds, coughs and even consumption.

The bowels are, also, directly dependent upon the liver for the proper performance of their functions. If the liver fails to secrete bile, and pour it into the bowels to be mixed with the contents so as to lubricate the membranes, and render the passage through the varied avenues easy, the feces, which are exceedingly offensive to the vital instincts, are partly returned to the circulation, constipation with all its train of evils being the condition. Whoever would have a good action of the bowels, must have an abundant secretion of bile by the liver, and, to this end, diet, as well as all other conditions, must be attended to. Whoever would have good health, therefore, should pay attention to diet as of the first importance, remembering that here commences, in the vast majority of cases, the downward road to disease and death.

The liver should have its proper work to perform, but no more labor should be imposed upon it than it can endure, and every attention should be directed to the production and maintenance of a good circulation within it, so as to keep it strong and healthy. The kidneys, also, must be maintained in healthful conditions through a good circulation in them. The skin too should be invigorated. A good circulation should be maintained in the surface of the body; and this cannot be done unless the stomach and liver, those great organs of sympathy, are strong and active. Exposure to sudden changes of temperature should be avoided. Moderate bathing, say three or four times a week, should be employed, with rubbings and manipulations, or vigorous out door exercises.

In addition to the securing of a good flow of bile through the bowels, they should have applied to them directly, daily manipulations and kneadings, unless the person is engaged in a laborious occupation which necessitates continual action of them. Bowel manipulations are one of the most effective means for invigorating the bowels, liver, stomach, and other organs directly connected with them, and may be said to be a positive necessity to all persons of sedentary habits who would maintain good health.

Among all the organs of purification none are more important than the lungs. They are, indeed, organs both of purification and nutrition. They supply to the system that which is absolutely necessary to the building up of it, as well as carry out of the system substances which, having served their purpose, can be retained only as impurities to obstruct the circulation. And here again, we perceive the importance of a proper diet. The lungs are enabled to perform just so much labor, and to do it well requires that they should have full opportunity, and *not be burdened with unnecessary materials.* The food we eat should be such as the organism requires, and all other kinds should be rejected. The lungs are engaged in carrying out the carbonaceous materials, and, if these are introduced in excess of the needs of the system, we readily perceive how the circulation becomes obstructed, the lungs overworked, and positive disease follows. It is indeed fully settled that tubercles in the lungs are the result of breathing insufficiently purified

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air, but whether the fault is in enfeebled condition of the lungs, or from an excess of impurities introduced through the stomach, is not as clearly defined. We are inclined to the opinion that the latter is often the case. Indeed, judging from the amount of candies, sugar, greases, starchy substances, that are used by the people, we feel certain that the difficulty originates in what we eat quite as much as in what we breathe. Of course, under such circumstances, the capillaries, delicate and minute as they are, become obstructed, and nutrition fails throughout the organism, weakening the lungs, as well as all other organs, and producing finally serious diseases.

The lungs are great organs of purification, but they are not great enough to carry off the impurities that are thrown into the circulation through reckless habits of living. There is another trouble, however. The air we breathe is seldom as pure as it might be. Dwellings, it may be said, are wholly unventilated. Impurities accumulate within the walls, and men breathe them over and over again, greatly to obstruct the circulation.

Good food, therefore, as well as pure air, abundant breathing, digestion, full action of liver, bowels, kidneys, skin, are all necessary to good nutrition. But good capillary circulation, which depends upon all these, and other influences as well, is the great means by which the nutritive process is carried on. Are not these facts amply sufficient to explain the feebleness so common among the people? Faulty nutrition is the commonest fact of life. It is impossible, or almost so, to discover a person whose nutrition is perfect. In some department of the organism there is failure. Either brain, or nerves, or muscles; either lungs, liver, stomach or kidneys, skin or bowels, are enfeebled, and all the disastrous effects thereof can be ascribed to any one of a dozen causes.

Beginning with errors in diet, we have immediately following, obstructions of liver, of kidneys, of skin and bowels, and lastly, lungs; the operations of each of these organs being dependent upon the substances used, as well as upon their vigor; and their own vigor being dependent upon our habits in general. It is true that good capillary circulation is the basis of nutrition; but it is equally true that this nutrition and capillary circulation depend upon vigorous action of other organs of the body. In the complex machine, when one organ becomes deranged, all others sympathize; when one evil has been consummated, a hundred others follow. Our wonder is not that men are sick, but that they are so well; is not that they are feeble, but that they are enabled to live at all. Surely, God is good, and nature is careful for her own necessities, or death and destruction would more quickly follow in the wake of sin and wrong. There is but one way to perfect health, as there is but one way to purity of life; and that is to begin at the beginning. Cut off the first excesses; avoid beginnings; abstain from the first sin; resist the first temptation; live a life of purity and holiness, as the great necessity to health and happiness. To do this is to attain to power not dreamed of; to enjoy capacity beyond comparison. The feeble ones know not what power is within them for health and vigor. They have become so accustomed to the aches and pains resulting from their bad habits, that they are content daily to grapple with disease; like him who never saw the light denying the existence of light—never having had health, they do not know the glories of health. Humanity at large, the great race, exalted in its origin, wonderful in its capacities, and glorious in its destinies, might be infinitely improved by attention to a few of the commonest details of life.

Scrofula.—No. 18.

By J. A. Tennet, M. D.

Bowel Consumption. This disease is more frequent in Europe than in this country, as a distinct affection, although I have seen quite a number of marked cases. It is more frequent in children than in adults, but it is not confined to any period of life. In a hospital for children in Paris, where no one is admitted under one year or over sixteen, the proportion of deaths from this disease to the whole number of deaths is for boys five or six, and for girls from six to eight per cent. But in this country it does not often occur as a distinct disease, although it is quite commonly a complication in other tuberculous affections.

The mesenteric glands are the seat of tuberculous deposit when consumption of the bowels takes place. These glands are small bodies situated at the intersection of the lacteal vessels. These latter are minute vessels which terminate in the mucus membrane of the intestines by a blind extremity, and which suck up the digested food and carry it through the mesenteric glands into the blood. Just what is the office of these glands, and in what way the digested food passes through them, is not definitely known; but probably it has to pass through the glandular tissue in the same way that oxygen passes through the membranes in the lungs when it enters the blood.

The mesenteric glands must perform some important office in the process of digestion, for assimilation is interfered with to a great degree when they are the seat of tuberculous deposit. As has been explained before, tubercules are small, cheesy particles, which are in reality very similar to the tissues where they are found; only they are so extremely deficient in vitality as to be of little or no use in performing any bodily function; and they are also very liable to break down in a mass, instead of gradually, as is the case with healthy tissue. There is good reason to believe that tubercles in the mesenteric glands soften and absorb in many cases without any very serious disturbance to the animal economy, just as tuberculous consumption often exists in the lungs and the patient recovers. Dissection often proves that consumption of the lungs may exist to a certain extent, and yet the patient recovers, and never suspects that he has had any serious lung trouble. But occasionally the deposit in the mesenteric glands, as well as in the lungs, is so great that the obstruction destroys the patient's life.

Most of the symptoms of this complaint are common to other diseases; hence it is sometimes difficult to discriminate between this affection and others of the same class. Especially is this true when it exists at the same time with tuberculous disease elsewhere. But the more certain symptons that indicate this complaint are a steady, dull pain in the centre of the abdomen, extending to the back; tenderness of the bowels upon pressure from before, and also in the back when pressure is made forward; increase of the pain by jumping, coughing, sneezing, etc.; a general acceleration of the pulse; feverishness towards evening; loss of color and flesh, etc. But the most positive sign of the disease is the discovery of hard, knobbed tumors in this region. When the disease is far advanced, these may often be felt by the finger; and when the person is otherwise of a scrofulous constitution, the presence of these tumors should be considered sufficient to enable one to decide as to the nature of the difficulty.

The tubercles are deposited either in the substance of the glands themselves, or within their membranous covering. The gland is pushed out of place, forced within smaller limits, or is absorbed. Sometimes it entirely disappears. The tubercles finally soften and become liquified. Cases have been known where the parts affected adhered to the abdominal walls, and the softened tubercles were expelled by external ulceration. Sometimes, also, they may escape through the intestines; in either case recovery may take place.

The first measure of treatment should be to remove the cause of the difficulty. The tuberculous tendency may exist one's lifetime, and yet be held in check by right living so that it will never appear. On the other hand, neglect of the rules of hygiene may excite it to activity, and cause it to break out in some vital organ and destroy the person's life, who might otherwise live to old age. It is by no means invariably true that a tendency to scrofula causes any serious inconvenience to the one who is affected by it. These remarks apply with force to the disease in question. One of its most marked exciting causes is intestinal irritation. Constipation almost always exists, with a torpid liver as its cause. Scrofulous persons

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should be especially careful not to allow constipation to exist, if they would be free from liability to tuberculous deposits in the mesenteries. Torpidity of the liver should be removed by hot fomentations applied to the back as often as every other day in ordinary cases, and enemas should be given daily to remove constipation. After these organs perform their work properly, the next indication is to cause absorption of the tuberculous matter in the mesenteric glands. Hot fomentations applied to the back, from the hips to the shoulder blades, should be given as often as every other day, and cool compresses should be worn in front continually at night. One of the best measures of treatment locally is gentle and long-continued friction over the abdomen by the hand of an attendant. Electricity is often of great use in all such cases to promote absorption.

Added to the foregoing measures, care of the general health is of the greatest importance, as it is in every form of scrofulous disease. Exercise in the open air, Swedish movements, perfect ventilation at night, wholesome and nutritious food, and whatever cheers the mind and invigorates the bodily functions, should be perseveringly employed. No one should despair even after the glands have become enlarged so as to be felt externally by the finger, for absorption may be induced even in this stage of the disease. After suppuration has actually taken place, with emaciation, hectic fever, diarrhœa, etc., little can be done except in the way of palliation. Yet if there is sufficient vitality to sustain the ulcerative process, as in all other tuberculous affections, the patient may recover comfortable health.

Acute Rheumatism.

By L. Jones Price, M. D.

This is one of the most common and painful diseases in this country. It arises from certain poisonous conditions of the blood. This poison in the blood acts upon all tissues in the body but chiefly upon the white fibrous tissues which surround joints and form the sheaths of muscles, ligaments, tendons; and also upon the structure of fibro serous membranes.

Symptoms.—The first symptoms of acute rheumatism are restlessness and fever, followed by stiffness and pain in one or more joints or in the limbs. The pain quickly intensifies and it becomes so severe, in some cases, that the patient can not bear the weight of the ordinary bed covering. The skin is bathed in sweat of a disagreeable, sour or acid odor. The temperature varies from 100° to 105°. When it reaches the latter figure the danger is great. Thirst, extreme. The tongue is generally thickly furred. Urine, scanty and highly colored, specific gravity from 1020 to 1035, loaded with uric acid. A peculiarity of this disease is a tendency to metastasis, thus the inflammation may suddenly leave one or two joints or muscles and show itself in other parts of the body and then, probably, return to the original seat of the disease. The most alarming change is when it moves to the heart or its covering, the pericardium.

Etiology and Pathology.—Dr. Prout first suggested that a superabundance of *lactic acid* in the system was the cause of rheumatism. This is probably so, as numerous experiments have been made to prove it. But the most important question to ask is: What causes this superabundance of lactic acid in the system or blood? My opinion is this: Lactic acid is formed whenever sugar, in solution, is placed in contact with an alkaline or earthy carbonate, *in the presence of a special ferment*, as, for example, the caseine of milk, or cheese. Pasteur has shown that the lactic acid fermentation is accompanied by the growth of a microscopic plant or mycoderm, which he is disposed to consider as the real agent of the changes produced. Now, some persons live almost wholly on a starchy or saccharine diet, prepared with baking soda and baking powder, so that these persons have taken into their system two of the elements necessary for the production of lactic acid. What is lacking is the ferment which is taken into the system in the form of milk or cheese; or, as some authors believe, these mycoderms are inhaled by the lungs, and, coming in contact with the other elements, lactic acid is produced. This theory seems plausible; for Dr. Richardson infers that the chemical changes, whereby this morbid matter, which is the cause of acute rheumatism, is produced, are completed in the pulmonic circuit. Therefore, in the respiratory act the acid quality of the poison may be produced. Now, the blood being loaded with saccharine matter and the alkaline or earthy carbonates, and then, inspiring air contaminated with mycoderms, would produce lactic acid in the "pulmonic circuit." If such is the case, we have arrived at the cause of rheumatism. We find that persons attacked with rheumatism are persons who have been large eaters and who lived chiefly on pies, cakes of all kinds, which, under certain conditions, are converted into lactic acid. You will *never find* a person who is a moderate eater, who lives upon a plain, simple, non-saccharine diet, complain of rheumatism. A person whose blood is loaded with saccharine matter and alkalies, on being exposed to a damp, chilly atmosphere, or, miners who work all day in water half way up to their knees, are liable to have an attack of rheumatism, for the following reason: The cold and dampness check the functions of the skin to a certain degree, thereby throwing back into the system the effete matter that ought to be eliminated by it, and also lessening the amount of blood in the surface of the body, forcing the blood in greater quantities into the internal organs, and, if any ferment is in the blood at the time, lactic acid is formed in great quantities, which can not be eliminated fast enough, and consequently acts as an irritant to the tissues. Rheumatism is the result.

Treatment.—The treatment heretofore used and still in use by many is: Bleeding, purging with the use of calomel, and blistering the affected joints. Another plan of treatment is by alkalies to neutralize the lactic acid; but the followers of the latter mode of treating this disease are surely not aware of the manner in which lactic acid produced in such large quantities in the system, or else, instead of giving remedies to neutralize the acid, they would strike deeper and remove the conditions that form it. Consequently the treatment of rheumatism is of two kinds: The palliative and the preventive. In the first stage of rheumatic fever the patient should have a thorough wet-sheet pack to stimulate the functions of the skin, also ought to drink plenty of pure water to dilute the urine to assist in holding the solid ingredients in solution and to prevent irritation. The patient should be immersed in warm water, or water of the temperature of the body, daily, and rubbed well afterward with towels. If the temperature should increase to 104° or 105° or higher, he should be put into a bath of the temperature of 100° and the water should be gradually drawn off and cold water substituted until the the temperature of the body falls to normal. Repeat every time the high temperature returns. Also use hot fomentations over the joints involved, between the baths. The immediate relief from pain by this method, is surprising. No morphine nor any narcotics need be given to stop pain, and, if the pain is relieved by fomentations, the patient will have no trouble to sleep. The diet during the fever should be very simple. Milk and sugar are positively injurious and all foods containing sugar may be. Cracked wheat made into a porridge, or oaten grits made up in the same manner, or Graham bread, will be very nutritious and laxative.

The preventive treatment I will consider in my next article, on chronic rheumatism.

The Vaccination Enquirer.

This journal comes to us regularly laden with interesting matter, on the subject which is well indicated by the name. *The Vaccination Enquirer* is engaged in a deadly struggle with the authorities on this subject, and I have no doubt, in time, it will succeed in having abolished one of England's most unreasonable laws.

That the people, as well as medical men, should be so thoroughly deluded as to the benefits of vaccination is astonishing. The facts and the arguments set forth in this journal are overwhelmingly against the prevention of one disease by the production of another, and we are prepared to agree with *The Vaccination Enquirer*, that vaccination is one of the enemies of mankind. It is true that we will all be compelled to die sometime, but I think it much wiser to die a natural death, even from small-pox, than be poisoned to death by the introduction of vaccine poison in the circulation. All those who are interested should subscribe for *The Vaccination Enquirer*. An advertisement will be found on another page.

Who says that the use of calomel is obsolete? Here is what Dr. Hall, of *Hall's Journal of Health*, lately said:

"Every physician of every school knows that calomel acts upon the liver, and that with a certainty almost amounting to infallibility, and being *as safe as any other medicine*, it is used with increasing confidence the world over whenever it is desirable to act on the liver."

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The Laws of Health.

Monthly, 50 Cents a Year.

ROBERT WALTER, M. D.,
Editor & Publisher.

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Associate Editor.

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OUR PLATFORM.

1. The vital power in the organism is the only healing power.
2. The rapidity and the certainty of cure depend as much upon the degree of vitality—the amount and quality of the vital force—as upon the distribution of it.
3. The symptoms may be changed and the disease often cured by reducing the quality or degree of this force, on the one hand, or by increasing it on the other.
4. Bleeding, purging stimulating, and all drug processes, as also the Water and Diet cures, as usually employed, cure on the former plan,—the plan of depleting the system.
5. The Nutritive-cure, on the other hand, cures only by building up, invigorating, and purifying the organism.
6. The true way to cure invalids therefore, is to distribute the vital force to its appropriate channels by means which shall increase, but never reduce the vital vigor.
7. This is done by the use of normal health agencies, which while equalizing the circulation, in which all nutrition takes place increases the production or manufacture of vitality, and reduces expenditure.
8. The breathing, digestive and circulatory systems comprise the organs of manufacture: while the brain, and nervous systems comprise the organs of expenditure.
9. The organs of manufacture are largely muscular, and depend for the performance of their functions on muscular contraction and relaxation; while
10. The organs of expenditure are mostly nervous, and depletion corresponds to the excitability and activity of the nervous systems.
11. All processes are to be employed to invigorate the muscular systems, special and general, while at the same time they tranquilize the brain and nervous systems, thus producing quiet, content and rest.
12. The Nutritive-cure embraces these principles, and by representing a scientific combination of exercising, breathing, bathing, eating, sleeping, resting, clothing, &c., is the only scientific system of medication in existence.

Two Weeks' Trial.

If anything further were needed to show that the system of treatment which we practice is new, and the principles not at all understood by the people, even by those who have read of them, it is the fact that so many persons are disposed to make a trial of one or two weeks' duration, believing that in this time they can decide as to the merits of the system for themselves. "You have had my wife under treatment now two weeks, and if she has not made some decided improvement, I fear it is not worth while to pursue the course," wrote a gentleman whose wife is lingering on the verge of the grave. He forgets that all important matters within human control are carried on slowly. If a man would build a house, and yet become discouraged because a two weeks' trial had failed to rear the structure, or if he were to buy a farm and be disposed to relinquish it because it had made him no return in two weeks, or if he were engaged in some manufacturing business, and failed to get results in two weeks, would quit the business, he would justly be entitled to be called a fool, and yet, are these businesses any more important, or any more difficult, than saving from death a human being? Which were easier: to restore a run-down farm to strong and vigorous conditions, so that crops may be raised thereon, or to restore a broken-down human organism to its pristine vigor. If men would show one-half the wisdom with regard to their own life and health, that they do in their farming or business operations, hygienic treatment would be demonstrated a marvelous success in all cases.

It is true that the processes of the Doctors Walter have been proved efficacious in relieving hundreds of cases in from three weeks to three months; it is equally true that many have failed who have not had the patience to endure three months; but still more is it certain that many who failed to get results in six months, and even in a year, have, nevertheless, by longer trial been restored to complete health.

The processes of the Nutritive-Cure may be slow and gradual, but sure as the processes of growth of the vegetable or fruit tree. Health can be restored upon the ruins of a broken-down organism, just as truly as the walls of the building may go up stone by stone, story upon story; but the foundations must be laid before the superstructure can be built, and while the foundations are being laid there may be no evident progress. Foundations are laid below the ground, and the casual or thoughtless observer may think that no building is being reared, because the workmen are employed in digging down the earth, instead of building up the walls. Two weeks' trial, in a case of life and death, is no trial at all. If such a case can be restored in three months, all interested parties might rejoice that God is merciful and truth is availing. Indeed, in such case, the friends might be thankful to think the patient can be saved at all, when it is remembered that every organ of the body has become desperately diseased, the lungs even failing to perform their functions, and exhaustion almost consummated, and this in spite of treatment by the ablest physicians, while the patiant has steadily got worse instead of better. We imagine that a year's trial would not be a certain test of the patient's capability. If there are any processes in this known world that can save such a case alive for another year, they have a right to the confidence and the gratitude of all concerned.

Are the New Theories True?

No one should be better able to judge of the truth of the positions we occupy, than regularly educated phyicians: a statement, however, which suggests an exception, namely: that being educated to study natural phenomena from a false basis, they are by virtue of that education less likely to comprehend the truth. Nevertheless, unless the man is greatly prejudiced, he cannot fail, even if a physician learned in all the lore of the schools, to perceive the science, as well as the common sense advocated in this journal.

We are permitted to announce that one physician, at least, agrees with us fully. Our new contributor, Dr. L. J. Price, having for many months recognized the wonderful success of our practice, had come to advise his patients of our institution, and to place them under our care. He is now convinced that our system is correct both in principle and practice, and proposes, hereafter, to employ the natural methods to the full extent possible. We commend to our readers his article on acute rheumatism to be found in the present number, which displays a knowledge of hygiene, as well as of medical science, that is not always met with among practicing physicians.

Dr. Price will interest our readers during the coming year with valuable articles. We congratulate the LAWS OF HEALTH and its readers on the acquisition of so talented a writer, as well as physician of such clear judgment and honesty of purpose.

When Harvey discovered the circula- of the blood, no physician, it is asserted, then in practice, over forty years of age, ever gave in his adherence to the discovery. We are able to say that Dr. Price is less than forty years of age, but is none the less critical or discreet for that.

Nature's Anæsthetic.

A correspondent sends the following, and asks for our opinion:

NATURE'S ANÆSTHETIC.

Several evenings since I was attacked with a severe dental neuralgia. After resorting to friction, cold and hot applications, etc., without obtaining any relief, I lay upon my bed trusting that sleep might come and give me respite. Still the excruciating pain continued, and while I was suffering the "tortures of the doubly damned," undecided whether to arouse some tired druggist for a bottle of chloroform or chop my head off (with a decided preference, however, for the chloroform), I suddenly bethought me of what I had read on an anæsthetic which we always carry with us. Thereupon I began to inflate my lungs to their utmost capacity, and then forcibly blow out all the air I could. Immediately the pain began to lessen, and after a few repetitions of the process it had entirely ceased, being displaced by a delightful tickling sensation in the gums, and furthermore I know not, for in less time than it takes to tell it I was sound asleep, awakening next morning delightfully refreshed and without a symptom of my ailment left. Hence, you see, I was not simply temporarily relieved, but entirely well again. I wish other sufferers would try this and report results.—*A. Frost, in Louisville Medical News.*

I have no doubt of the truth of the statement made by this gentleman. Whether a man breathes or not has much to do with whether or not he suffers pain, and much of the effect of ether or chloroform is due to the fact of its reducing this function of the patient to the lowest possible point. If a man ceases wholly to breathe, he will probably suffer no pain, and, hence, to expire all the air in the lungs will be frequently serviceable in the way of relieving pain.

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But though this man succeeded so admirably, it is not to be supposed that others would have a like success. No doubt, the improvement in his conditions was due somewhat to the obstruction of breathing, but more to a change in the circulation from the effort made to inhale and exhale in the greatest possible degree. To fill the lungs to their utmost capacity and correspondingly exhale, and to repeat the operation a few times, will often warm a man's feet and hands, and, if continued, will sometimes induce perspiration, and this process will frequently relieve pain. The hot bath tends in the same direction, and so may various other processes on a certain occasion, but if repeated at another time and under different circumstances, would utterly fail. Let any man who has suffered pain, or nervousness, or from any distressing symptom, do as this man did and he will often get benefit, which, in hundreds of cases, however, will be so slight as to be inappreciable. The practice will do no one any harm, however, and hence may be used as an experiment by any person at any time.

Our correspondent thinks the claims herein set forth border on the marvelous, while we think that they are simple as A B C. Would he think it a marvelous thing if a tooth, which had been aching furiously for hours, should cease upon application to the dentist, even before the dentist had done a thing to it; and yet, this has often occurred. Nervous influence itself can often so change the circulation as to produce very wonderful effects.

Tea and Coffee.

By J A. Tenney, M. D.

We are a nation that cannot bear stimulation. The tendency of the American people is towards nervous diseases, and whatever directly excites the nervous system abnormally has a powerful influence to increase this tendency. Tea and coffee, from their universal use as beverages, are doing more than any single pernicious habit to this end unless it be the use of tobacco. Spirituous liquors are in the background, for a large class do not use them at all. but there are few that think the use of tea and coffee is unwholesome; their effect is so insidious, that it is too far removed from the cause to be connected with it by the common mind.

Tea and coffee are used at meals. Drinking anything at meals is a pernicious practice. In the first place, the food is rinsed down without proper mastication and insalivation. The saliva is an important digestive fluid, and no liquid, especially a poisonous one, can be substituted for it to advantage. Then the introduction of large quantities of liquid into the stomach during the digestive process, dilutes the gastric juice, and interferes with its secretion, for the liquid must be absorbed by the coats of the stomach at the same time that it is secreting the gastric fluid; and the two processes directly contradict each other, thus deranging the process of digestion and weakening the coats of the stomach.

Then again, the unnatural temperature of such drinks is productive of mischief in various ways. It weakens the teeth and causes them to crack and decay. It also weakens the stomach by stimulating it to increased action on account of the heat, which is speedily followed by debility; the tendency of hot drinks is toward chronic inflammation of the stomach.

Thirdly, tea and coffee are poisonous. When a pound of tea is analyzed, it is found that woody fibre, gum, mineral substances, and water compose one-half of the whole. Caseine, sugar, and fat make about three ounces, while the remaining five ounces are made up of the poisons, tannic acid, aromatic oil, and *theine*. These last three ingredients, which compose a little less than one-third of the whole, are irritant poisons.

A pound of coffee contains four ounces of fat and legumine; eleven ounces of woody fibre, gum and mineral matter, and one ounce of poison, which consists of tannic acid and *caffeine*.

Dr. Dunglison says, that "caffeine and theine in doses of from two to ten grains, induce violent nervous and vascular excitement." A few years ago the Edinburg *Medical Journal* published the result of more than one hundred experiments performed on different animals with these poisons by Dr. Bennett, in the physiological laboratory of the University of Edinburg. He found that they produce, in small doses, first, cerebral excitement; second, loss of sensibility. In large doses they produce, 1. Cerebral excitement; 2. Complete paralysis of sensibility; 3. Tetanic spasms and convulsions; 4. Death.

When these substances are taken in small doses, as is the case with tea and coffee drinkers, the poisoning is slow, but none the less sure. The whole nervous system is excited to expel the poison; this gives a feeling of exhilaration. Then the kidneys, liver and skin are called upon to cast the offending substances out of the organism. They become weakened as the poisoning is continued year after year, until the skin grows sallow, the kidneys become weak, and perhaps Bright's disease closes the scene; or biliousness becomes chronic; or the patient suffers from periodical sick headaches; or a host of nervous ailments may follow as a direct result of this continued irritation and depletion of the nervous system.

So much for the real tea and coffee. But it is well known that very little tea is free from adulteration; and green tea, especially, is poisoned terribly in the process of coloring; for green and black tea are from the same plant. Dr. Davis, an English expert in the examination of tea, found that very few of the leaves of the tea drank in China were ever thrown away, but are carefully saved and colored with turmeric, which gives them a yellow color; then fine glue was added, with Prussian blue and gypsum, triturated together. One of the ingredients of Prussian blue is prussic acid, one of the deadliest poisons in existence. Sulphate of lime and indigo are also used for the same purpose, of turning the yellow tea leaves to a beautiful green.

We give the following analysis of tea, which was made by Dr. Edward Smith, of England, and published in his work on "Foods:"

"Iron, plumbago, chalk, sand, Prussian blue, turmeric, indigo, starch, gypsum, catechu, gum, the leaves of the cammellia, savangua, *chloranthus officinalis*, elm, oak, willow, poplar, elder, beech, hawthorn and sloe."

It will be seen that not a particle of the original tea leaf was found in his analysis, while it contained several violent poisons. It is stated upon reliable authority that *one grain* of Prussian blue is employed in coloring each onnce of green tea! It is a significant fact that the Chinese do not use green tea for home consumption.

Coffee is freer from adulteration than tea, yet Venetian red and some other coloring matters are used to fit it for market; when it is sold already ground, it is well known that no one is sure of what he is buying.

Among the most common diseases produced by drinking such mixtures are nervousness, sleeplessness, sick headache, insanity, torpidity of the liver, palpitation of the heart, decay of the teeth, constipation, epilepsy and cancer. It would seem that such an array as this would be sufficient to arrest this great evil in some degree; but while people's propensities are stronger than their reasoning powers, so long will they continue to goad themselves onward with stimulants, ignoring the old proverb, "There is a way that seemeth right unto a man, but the end thereof are the ways of death."

Health Convention.

The following are among the questions recently discussed in our Thursday evening convention. The answers thereto will be of interest, I have no doubt, to our readers:

Question. Is it healthful to eat when one is tired—tired of reading, sewing, walking, writing, or work?

Answer. Feeble persons should eat only under the most favorable conditions and circumstances. When they are tired they should rest rather than add, by eating, burdens to an already overtaxed system. To eat while one is nearly exhausted, is to invite indigestion with all its fearful train of ills. In the case of a person in vigorous health, however, the effects are not so obviously injurious, but even among these, when a person is tired, he should rest; for this reason a nap before dinner is one of the most hygienic of hygienic appliances. It quiets the brain, soothes the nerves, equalizes the circulation, and renders the person prepared for active work, whether of stomach or other organ.

Question 4th. Do you consider the movement-cure of service to enable people to maintain health, and at what time of the day should the exercises be gone through with?

Answer. As movement-cure is very serviceable in regaining health, so is it equally serviceable in maintaining it. Persons of sedentery habits, particularly, should employ movement-cure exercises as one of the most important ways of equalizing the circulation of the blood, and so restoring good nutrition. The ordinary exercises are seldom efficacious. There is required a prescription suited to the individual case, and if this prescription be carefully adhered to, we guarantee the most desirable results to all persons sick or well, but especially to those who are not engaged in laborious occupations.

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The movements may be administered at any hour of the day which is most convenient, provided the patient is not exhausted, nor his stomach too fully engaged in its work. In the morning before breakfast, in the forenoon, afternoon, or evening, the movement-cure exercises may be gone through with; and most important of all is *kneading and percussion of the abdomen.* The man may percuss the abdomen with the palm of the hand several times per day to decided benefit. Though, at first, there may be some soreness, this will gradually wear away, and improved breathing, digestion and action of bowels, will be the result of his percussions.

Question. Does milk promote digestion?

Answer. No; I wonder that anybody should imagine such a thing. Milk very often prevents digestion, but there is no reason to suspect that it does anything in the way of promoting it.

Question 2nd. Fresh leavened bread is considered quite unwholesome; why is not fresh unleavened bread equally so?

Answer. The process of raising the bread by yeast or soda, develops within it carbonic acid, which is not expelled for several hours after baking. If a person eats fresh leavened bread, therefore, he takes into his system this carbonic acid, and all experience proves that the results are undesirable. When bread is properly cooked, as after the manner employed at this institution, wherein no deleterious gases are developed, it is perfectly wholesome whether eaten warm or cold, while leavened bread is not wholesome, as all experience has shown.

Question 3rd. Are pulse warmers or wristlets a benefit to the circulation?

Answer. One of the quickest ways of affecting the circulation and the temperature of the body, is by appliances to the wrists. In the hot summer days, cooling the wrists by pouring on cold water is a very efficient means of cooling the whole person; just as truly, keeping the wrists warm during the cold season is one of the most efficient means of keeping the whole body warm. Pulse-warmers, therefore, are altogether desirable for persons in all conditions of health. To allow the wrists to be chilled, is decidedly unwise; just as unwise as to have cold feet, and, as a natural consequence, a hot head.

Question. Which is the least of two evils, to eat corn beef and mutton, or not to eat meat at all, when you have not access to fresh beef?

Answer. I should eat corn beef or mutton very seldom, but would, on the contrary, strive to get along as well as possible without meat, unless I could obtain good healthy fresh meat.

Question. Are malt liquors, especially lager beer, good for persons with torpid livers, or for any one else?

Answer. No; under no circumstances are malt liquors desirable. If a man must stimulate, let him use wine, or tea, or coffee, but I should avoid malt liquors as I would the evil one. He should use no stimulants however.

Question. Franklin writes, "People in general, since the improvement of cookery, eat about twice as much as nature requires;" what given quantity does nature require?

Answer. The term nature is very indefinite, indeed. I suppose patients require all the food they can eat and dispose of and no more, and the same is true of healthy people, but no man can prescribe with certainty just how much that is. Appetite is given to us for that purpose, and if we will obey our natural instincts, refusing to pervert them by bad habits, we will not be likely to go far astray in the matter of appetite. It is true that the majority of people eat too much, not necessarily in bulk, but by using concentrated foods. The process of cooking which puts two or three substances into the space and size of one substance, tends directly to the promotion of ill health. For instance, one pound of flour occupies a certain space when mixed with water and cooked; the same pound of flour when mixed with milk will occupy the same space, and with butter the same space, and is eaten as though it were plain food. On the principle that one gallon of sand and one gallon of water when kept separate make two gallons, but when poured into the same dish, are only one gallon of mud. So one pint of flour, one pint of milk, one pint of sugar and one pint of butter, when held separate constitute four pints of food, but, when mixed together, do not amount to over one or two pints. In this way the process of combining material has concentrated our foods, and caused mankind to eat double or treble what they should eat.

Question. Is butter not digested in the stomach?

Answer. It is not; it is simply absorbed into the circulation in the form of fatty emulsion and is burned up by union with oxygen of the lungs, or is deposited as fat in the cellular tissues. Butter would be necessary to life, provided the same material was not introduced into the organism in different form. But we are of opinion that it is unnecessary to health, because an abundance of carbonaceous material having been supplied in the bread, potatoes, corn, etc., which we eat.

Ventilation and Heating in Ancient Times.

The necessity for pure air to the proper activity of the physical functions is now quite thoroughly believed, that is, has become one of the cardinal principles of sanitary science; and the intelligent man who is looking around for a house, in which to place his family, makes inquiry with regard to the arrangements for ventilating the rooms in which they must live.

Architecture has a tendency towards excessive complication. Men erect great structures, with numerous stories, seeking to make the most of the ground on which they build; and while they bear in mind the importance of the introduction of fresh air for health, for those who must occupy the different rooms and offices and halls, etc., they find it difficult in far too many cases to make such provision for ventilation as to secure the best results. The laws of atmospheric movements are pretty well ascertained, and in very many cases it is found almost impossible to adopt a certain architectural motive, to complete harmony with those laws; especially is it difficult to secure (of large and complicated buildings, to the apartments situated near the centre) good air, combined with a comfortable temperature, at all seasons of the year.

The ancients, the Romans in particular, were well acquainted with the principles of ventilation. Their public halls or large places of assembly were so situated that they did not suffer from pernicious air or vitiative atmospheres. To be sure, the climate of Italy is mild as compared with that of the Northern United States, and the houses of the residents of the better classes were not such towering structures as the abodes of the wealthy among Americans. A winter residence, said to be near Herculaneum, was ventilated. In the language of Winkelman, "the building is low; underneath the earth is a room, of the same dimensions as the room that is located immediately above it, and about two feet in height. The lower space, or room, is named hypocaustum. In the last-named room are small pillars built of bricks without mortar, only walled up with clay, the better to withstand the heat. Upon those pillars bricks are laid, and upon them rests the suspended floor—heating floor—called suspenearæ caldarium. The floor is laid with coarse mosaic; the walls of the upper rooms are covered with different colored marble slabs. In this floor are square flues walled in, communicating with the hypocaustum. These flues are built in the surrounding walls, and extend to the upper or second story rooms where the heat escapes through lions' heads made of terra cotta, and the outflow is regulated by a plug or stopper. A small passage leads into the hypocaustum; on the other end of the passage is the heating stove from which the heat enters by the passage into the hypocaustum, and from thence through the flues, so that the floor became heated first and afterward the walls. The floor of the second story, probably constructed similarly to the first, but perhaps of less thickness, was heated by the heat of the rooms below it. Such a general and equal diffusion of heat was not accidental, but calculated."—*Science of Health.*

Questions Answered.

By Robt. Walter, M. D.

Question. I am subject to cold feet and hands, having to sit still all day at wood engraving, except an half an hour at noon. The floor of the office is covered with oil cloth, which is very chilling. What would you advise me to do to keep my feet and hands warm? F. W. E.

Answer. You are in poor conditions of health because of enfeebled circulation, and there is no way by which you can be permanently restored except by building up the general health. You should have a brisk walk several times a day, other movement-cure exercises to develop the circulation in the extremities. See that the arms are very heavily clad. Wear pulse-warmers and have the sleeves of shirt, and even coat, made double thickness. Let the legs of the drawers, also, be made double thickness, and wear large, thick boots. If made of cloth, all the better. In addition, swing the hand in a circle, as rapidly as possible, fifteen times, and reverse the operation fifteen times. Swing the feet, also, as many times, one arm and one foot at a time. Perform these movements several

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times a day, if necessary, and with the addition of clothing, I feel certain you will get improvement.

Question. I have been visiting and the water of the locality has produced a laxative condition of the bowels; please inform us how to neutralize the effects of such water? G. C. M.

Answer. I know of no way to neutralize the effects while the causes remain. If you must drink water which has within it injurious substances, I think you will have to suffer the consequences.

Question. 1. Are the health lifts so recently in vogue of real benefit? 2. Which health lift do you prefer to recommend? 3. What do you think of the Holman pad and other pads, as absorbments of disease? 4. Is there any specific for diseased mucous membrane? 5. Is there anywhere to be found a certain and permanent cure for painful menstruation? P. R. S.

Answer. 1. The health lift when properly employed is often of decided advantage to persons who are not really diseased, and to some of those it is serviceable, if carefully employed. 2. The Butler lift is, without doubt, superior, though many of the others are excellent machines. It is, indeed, not so much the perfect machine, though this is desirable, as a thoroughly skillful application of it under the direction of a competent physician. An indiscriminate use of the health lift is likely to do as much harm as good, while careful use of it under proper conditions and directions will often be decidedly beneficial. 3. I am certain that none of the pads advertised do any thing whatever in the way of *absorbing disease*, and I believe they do not claim it. They claim to promote the absorption of medicine into the system, and it is supposed that the medicine, in some mysterious way, cures the disease. The pads are simply new, and supposed to be improved methods of administering drug poisons to patients, and, as we have previously said, our objection is not so much to the method of introduction, as to the fact of introduction at all. We do not believe in poisoning a man because he is sick. 4. There is no specific for any disease in the world. All physicians are compelled to admit that specifics are unknown. Disease of the mucous membrane can usually be cured, provided the proper conditions can be had, and the proper treatment employed. To build up the general health is the true way of curing this or any other disease. 5. Painful menstruation is properly cured in the same way; namely, by restoring the patient to good health. If the patient has good nutrition, good circulation, and as a consequence, pure blood, all the functions of the organism will be performed healthfully, and all the organs will be in healthful conditions.

Question. I am 62 years of age, light complexioned, medium height, but am not strong. A little work fatigues me. I have a small appetite though no distress after eating. I am not very liable to overeat. My head feels heavy and bad most of the time, and I have to get up some six times in the night to make water, though sometimes only once. Do you think my liver is affected? I am not in the habit of taking medicine, etc., etc. Mrs. C. R.

Answer. I do think your liver is deranged, though you have also a very excitable condition of the bladder, but that you are weak ought not to discourage you, though it indicates that you are considerably out of health. I would advise you to be extremely careful about keeping warm. Cold hands or feet, and a chilled surface, will produce the condition of which you complain. I should also apply hot fomentations over the stomach and liver twice a week, and wear wet abdominal bandages every night. You should have also the warm full bath immediately following the fomentations. That is the fomentation—heavy flannel cloths wrung out of hot water laid on the abdomen and covered with dry flannel cloths to keep them hot, changed every five minutes, and continued for fifteen minutes—should be followed by the warm full bath, in which the patient, being well rubbed, should, on coming out, have a sheet thrown over him, be rubbed dry, and have the whole surface of the body well rubbed and manipulated, until it is warm. After that he should go to bed and rest for an hour or two. Cease to take drugs. They will do you no good whatever; but on the contrary will inevitably run you down.

Question. At what age should a child begin to eat from the table? Our child, not quite six months old, seems to want everything on the table, and friends urge me to give him mashed potatoes and the like.

Answer. There is danger of feeding him too much. A child at six months old should live mostly or wholly upon milk, but as he begins to reach the end of his first year he may have a little bread and milk or other solid food. Of course a very little solid food might not hurt him now, but I would advise you not to overdo the matter.

Question 1st. How shall I keep the scalp free from dandruff? *2nd.* How shall I keep the hair from falling out? J. R.

Answer. The falling of the hair is the result of the same conditions that cause the dandruff, and the treatment that is serviceable in one is beneficial in the other. Dandruff is the result of an unhealthy condition of the scalp, representing deficient circulation and consequent nutrition therein. Thorough rubbings of the parts with the tips of the fingers, is excellent treatment, especially if these are frequently dipped in cool water during the operation; then the dandruff should be carefully removed by comb and brush and the scalp rubbed daily with the fingers as before stated. By this means the hair follicles will be strengthened, and a new growth may be expected.

Question. Is there alcohol in the various flavors of soda water?

Answer. That depends upon the quality of the goods. The various essences, whether of one fruit or the other, are preserved in alcohol; but every truly thoughtful and honorable dealer, desirous to give to his patrons the worth of their money, uses only the fruit juices as they are canned in bottles for the purpose. These have no alcohol.

Question. Do you consider livers and kidneys of animals proper food to be classed with meat diet? G. C. M.

Answer. We do not consider them at all fit for use. They are both organs of purification, and necessarily some of the impurities which they have been engaged in secreting, are retained within them, and to eat them is eat the impurities.

Question. I am somewhat troubled about our well water; it is not clear, and has a slight taste. When boiling, the water seems full of reddish specks. I enclose some of the settlings taken from the bottom of our boiler, and send for your inspection.

Answer. Your water contains mineral impurities in the form of limestone, and probably, iron, and I should judge is unfit for use. I have not the time to enter into any chemical analysis of the settlings, but the conclusion as to the existence of mineral impurities I think is entirely correct. Better catch your rain-water and have it filtered for your use.

Question. How shall a nervous dyspeptic maintain control over an insane craving that increases as he eats, and how shall he ascertain the amount adapted to his poor assimilation, when it is so variable that, at times, a very little seems to be injurious, and at others, a full ration is followed by no bad results. MINN.

Answer. The only way to maintain control over an insane craving, is to get cured of dyspepsia. In the meantime, the person should ask himself, why do I have this craving, and should, if possible, remove the cause that the effect may cease. The causes of the craving appetite are diet insufficient in quantity, or bad as to quality. Frequent bathing, especially in cold water. The morning bath always tends to the production of this condition.

I do not know if this person has been dieting and bathing himself, and so has induced this insane craving, or not. As to how I should determine the amount of food to be used, let me say, experience must be the guide, and if experience is unreliable, he should place himself in the hands of a physician who is competent to regulate his diet. I doubt whether he can recover health outside of a good health institution where he can be under the physician's immediate care. He ought to come to the Mountain Park, and undergo a course of from three to six months' treatment.

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VOL. II. READING, PA., NOVEMBER, 1879. No. 7

Ventilation.

BY ROBT. WALTER, M. D.

It is an old adage that "circumstances alter cases," and one which has been wonderfully verified in the relations of people to air. While man roamed the forests, or lived in tents, there was no necessity to provide for pure air; but as civilization advances, and fine structures are erected with modern conveniences, and the completest protection from the inclemency of the weather, the subject of ventilation comes to be of all-absorbing interest, and the more so that our appliances of heating have become complicated, as well as convenient.

Comfortable dwellings were no barriers to good health, until after the introduction of air-tight stoves. The open fireplace was perhaps, the grandest means of ventilation ever discovered. The researches, experiments and efforts of later times, have found nothing to surpass this in practical utility; but as the open fireplace has disappeared, and the air-tight stove, the cast iron furnace and the steam heater, have been introduced, the necessity is upon us to study this important subject carefully. This will be more readily seen upon examination into the conditions which secure to us a pure atmosphere.

Atmospheric air, in its pure state, is composed of nitrogen and oxygen, in proportion of about four parts of the former in bulk to one of the latter, with traces of carbon and hydrogen. These form, not a chemical compound, but a mechanical mixture in such manner as to permit easy separation in the lungs, whereby part of the oxygen is exchanged for carbon of the blood, to be exhaled with the nitrogen.

Oxygen is the life-sustaining element, while nitrogen in addition to being a diluent of oxygen, serves, also, as a vehicle for transmitting oxygen to, and carbon from, the blood. Were the oxygen of the air not diluted, it would cause the fires of life to burn with unnatural intensity, while the carbonic acid, exchanged for it in the lungs, would be retained and absorbed, infiltrating the whole system with a narcotic poison. Oxygen is vital air. Every breath we breathe consumes it and leaves in its place carbonic acid, an irrespirable gas; hence breathing does not consume the air as to quantity, it simply deteriorates its quality. Combustion does the same thing; so does oxidation of metals; every fire, lamp, gas-burner that burns, every metal that rusts, is consuming the oxygen of the air, and deteriorating its quality.

If this operation continued unchecked and unprovided for, as it will in dwellings if no opportunity for ventilation is provided, the oxygen will finally become exhausted, carbonic acid accumulate, and animal life be destroyed. But nature has made ample provision against this catastrophe, provided that man does not interfere. The vegetable world antagonizes the animal in this respect, and where the vegetable and the animal are brought into close contact, purity of air is maintained. The one inhales what the other exhales. While animal life uses the oxygen and produces carbon, vegetable life appropriates carbon and produces oxygen. Thus the balance is maintained, and provision made for the perpetuation of both animal and vegetable life.

The same beautiful arrangement exists with regard to food. That which constitutes food for vegetables, is poison to animals, and what will support animal life cannot be appropriated to vegetable uses. It were well for us if we understood these facts, and in our attempts to improve upon nature, would be careful not to oppose nature.

As men have gathered around themselves the comforts of life, they have, because of their ignorance, made those comforts life-destroying. Few dwellings have any proper means of ventilation. Living rooms, sleeping rooms, as well as parlors, bath rooms, etc., are close and confined, by which the inmates are compelled to suffer for want of nature's most important agency of life and health. But if this is true of dwellings, it is infinitely more so of lecture halls, churches, court-rooms, etc. Youmans, in his chemistry, shows that an adult man will exhale nearly six gallons of carbonic acid per hour, so that during a lecture of an hour and half, 300 persons will exhale over 2,500 gallons of this gas; they will inhale and appropriate an equal quantity of oxygen. The gas-burners and fires will accomplish a similar result, so that unless ample means for the increase of oxygen is provided for, and the egress of carbonic acid, the results must be disastrous indeed.

That such means are not provided is well known, and by common consent our system of ventilation is looked upon as very insufficient, and even designated as "one of our barbarisms." Judges are frequently compelled to leave their seats, lawyers to ask adjournment on account temporary illness, preachers to resign their pastorates because of ill health, all for want of proper care in ventilating public halls, and yet the people are very apathetic with regard to this subject. Many consider, indeed, pure air a great enemy, and employ varied means of shutting it from them. A celebrated M. D. of New York City, after having preached to thousands the superlative wisdom of tight lacing, as a preventive of consumption, has also made the brilliant discovery, that it is far better to sleep in close warm rooms, and breathe impure air, which he admits must exist, than to breathe pure cold air. "The former," he says, "may kill you, but it will be a slow death, but the latter will kill you quicker," a statement that is contradicted by all the facts and experiences of life. He proved by the same process of reasoning that old rye as a morning beverage, is an excellent preventive of ague and fever. One reason for this man's teachings, and for the people's practices is because lack of pure air unfits them for contact with pure air.

Our bad habits in respect to air and breathing, operate precisely in the same manner as do bad habits in respect to eating, drinking, medicine taking, etc., the more we indulge, the more we desire to indulge. Once we are started on the wrong road, it is very easy to continue therein, while very difficult to retrace our steps. The first glass paves the way for the second, third, and fourth; just so, the more closely we shut ourselves within doors, the more we need to do so.

The less oxygen we breathe, the poorer circulation, and less vital heat we have, which, of course, causes us to seek closer rooms, hotter fires, and less of out-door exercise. No persons are so subject to colds as those who seldom breathe cold air, and none are so ready victims of consumption as they who are all the time protecting themselves. Who faces the breezes of autumn, or frosts of mid-winter, is not the victim of colds, coughs, or consumption in any thing like the degree that the carefully housed, tenderly nursed young ladies are. It is not in the frontier hut, the savage's wigwam, or the soldier's camps, that these diseases abound.

But there is another evil connected with poor ventilation which must not be forgotten, and that is, mental and physical inactivity. While the oxyen is insufficient in amount, and the carbonic acid is breathed in its place, we cannot expect to have that activity or vigor which naturally belongs to us. The fires of life will burn dimly, the vital heat continue at a low ebb, and so we pile on more coal, and stop up the cracks and key-holes. The circulation of blood is feeble, so that the sound of whistling winds chill us to the bones, and we are

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admonished to remain within doors. Our blood is mingled with carbon and other impurities, until the first breath of highly oxygenized air sets it on fire, and we have a fever, which is popularly termed "catching cold."

We are dull and sleepy so as to demand tea and coffee and tobacco and alcohol to stir up our lazy faculties, and make us think and feel, for the time, that life is coursing in our veins. If ministers but knew how dull their hearers become in the unventilated church, or lawyers, how stupid the juryman must be who is being poisoned with carbonic acid, they would make desperate efforts to have the difficulty remedied. Sleepy worshipers are found in every church, and largely in ratio to the inefficiency of the ventilation. They may charge it upon the sluggishness of the preacher, and perhaps with some show of justice, but even his sluggishness is too often for want of pure air.

The importance of this subject, however, need not be further urged, for I believe in these days, the people are sufficiently awake to be willing to investigate any means which offers a reasonable hope of securing pure air in inhabited buildings, public or private. We propose to give our readers the benefit of the most improved methods of ventilation.

Scrofula.—No. 19.

By J. A. Tenney, M. D.

Bronchitis. This disease is the most common of all the pulmonary inflammations. Ordinarily it is confined to the large bronchial tubes; but sometimes it extends into their minute ramifications, when it becomes a more formidable disease to control. Bronchitis may be either acute or chronic; it may also exist as a consequence of other diseases, as pneumonia, and it often prevails as an epidemic, when it is called *influenza.* This article will describe the chronic form of the disease, as that depends more upon the scrofulous diathesis than the other varieties.

There is always more or less cough connected with this disease. Its violence is in proportion to the quantity and tenacity of the mucus which forms in the bronchial tubes. There is ordinarily little pain, but there is generally soreness under the breast bone. It is not uncommon, however, for pleuritic pains to exist temporarily, causing the patient serious inconvenience. Sometimes the expectoration of mucus is very slight, and then the condition exists which was called by Laennec *dry catarrh.* The mucus expectorated is often streaked with blood, which unnecessarily alarms the patient; but it should be borne in mind that chronic bronchitis is in no way dangerous to life. It is true, it may be followed by consumption; but consumption is no more liable to follow bronchitis than it is a common cold. It is a common but erroneous impression that colds cause consumption. When the lungs are filled with tubercles, a cold may so increase the work that the lungs are obliged to perform as to excite them to ulceration, when the tubercles might have remained quiescent if such an accident had not happened; but where one person has a cold followed by consumption, millions recover without any such sequel. Chronic bronchitis is an effect, rather than a cause of disease. It is the result of a worn down, debilitated condition of the system; and if consumption follows, it is not due to the bronchial affection as a cause, but both diseases are the result of a debilitated general condition.

Some have supposed that bronchitis was sometimes caused by the inhalation of dust, as it often affects workers in stone and the metals, where much dust or iron filings is constantly mixed with the inspired air. But, although these substances are sometimes found impacted in the lungs in considerable quantities, they are probably only left there because the vital powers were unable to expel them. It is hard to show that they are the causes of the inflammation.

Chronic bronchitis is essentially a nervous disease, like catarrh and asthma. These diseases always go with nervous debility, and if the general health can be improved, such difficulties will always disappear. It is well known to physicians that asthma is caused by irritation of the pneumogastric nerve; which supplies the lungs, and also the digestive organs to some extent. Pressure upon the diaphragm, which is supplied with this nerve, will sometimes cause asthma. In one of the worst cases of Bright's disease of the kidneys that I ever saw, the patient did not sleep more than an hour in the twenty-four on an average for the last six months of his life, on account of asthma, which was caused by the pressure of the attending abdominal dropsy upon the diaphragm. Hay fever is caused by irritating spores in the air, which irritate the extremities of the pneumogastric nerve in the air cells of the lungs. But those who have strong and vigorous nervous systems do not have hay fever, no matter how much they may be exposed to its causes.

The plan in common use just now by the profession is the inhalation of medicated vapors for throat and lung affections, by means of vaporizing machines or atomizers. Solutions of alum, tannin, ergot, opium, conium, hyosciamus, hydrate of chloral, sulphate of zinc, perchloride of iron, etc., etc., are recommended in medical works and by college professors, to be introduced into the air passages in the form of spray. These astringents will relieve temporarily; but fasten the difficulty upon the patient in the end, if they are depended upon. If the pneumogastric nerve is weakened, as it is in all pulmonary affections, these medicines, or poisons, only make the nerves more sensitive, instead of blunting their sensibility; nothing but health, the building up of the organism by observing the rules of hygiene, can remove morbid nervous sensibility. Smoking stramonium will relieve the paroxysms of hay fever; but they invariably grow upon the patient if the smoke of the drug is depended upon. It is better to bear inconvenience for the time being, and finally grow out of it by correct living, than to relieve it for the time, and so fasten it upon one's constitution that it can never be removed.

The only rational plan of treatment consists in building up the general health first; then local remedies will have an effect, which they would not have otherwise. The feet and hands should be kept warm without fail. The patient should have passive movements of the limbs every day, consisting of kneadings, rubbings and percussions of these organs, to improve the circulation, and so relieve the engorged condition of the bronchial tubes. If the blood were in the limbs and surface of the body in proper quantity, no bronchial difficulties could possibly exist; for these depend upon an unbalanced condition of the circulation.

The diet should be nutritious, but stimulating food and drinks should be avoided. Wine and alcoholic stimulants of all kinds are destructive in such diseases. The inhalation of spray from warm water, by means of an atomizer, is sometimes of benefit, by softening tenacious mucus. A wet compress should be worn at night in all cases, and if there is much pleuritic pain, hot fomentations should be used, or the hot full bath, according to its severity. I have often found electricity to give marked relief in such cases.

But the great object should be to invigorate the whole nervous system. When this is done, the local manifestations of nervous disorder will disappear. If there is immunity from the disease in the summer season, a removal to a warmer climate will be beneficial in winter, and a permanent change of climate is sometimes necessary to complete recovery. Chronic bronchitis is often a very difficult disease to manage under the best circumstances; yet if the patient is not too old, and the vitality has not been too much drawn upon, hope may be entertained that recovery will take place.

Health Convention.

Question. Why is it not healthful to drink at meals?

Answer. Because the fluid is usually used as a means of washing down the food that has not undergone a proper mastication and insalivation, which are necessary to the healthful digestion of vegetable foods. Another reason is that by this means fluid is introduced into the stomach, which must be absorbed before the process of digestion can properly be carried on, and this absorption cannot well take place while the stomach is at the same time pouring into its cavity gastric juice, which is, properly, done

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while we are eating. The process of absorbing fluids through the walls of the stomach is a process the very opposite of pouring into the stomach gastric fluid; and these processes, viz: the carrying of fluids through the same channels in opposite directions, cannot be properly performed at the same time. The drier the food one eats, the more thoroughly it will be mingled with the fluid necessary to its digestion.

Question. How soon can persons with good digestion drink after meals without interfering with digestion?

Answer. A healthy person will digest his meal in from four to six hours, and neither cold drink nor even warm should be had while the stomach is full and laboriously active. After the process of digestion has pretty well taken place, it is desirable to drink fluids sufficient to quench thirst.

Question. Will persons of good digestion have wind in the stomach when the stomach is empty?

Answer. Atmospheric air presses upon all portions at a pressure of about 15 pounds to the square inch, and it is not reasonable to suppose that when the food passes out of the stomach no air passes in. Atmospheric air, undoubtedly, is found in every human stomach.

Question. If a person belches wind after rising in the morning, is it a sign that there is undigested food in the stomach?

Answer. Not at all, but it is an indication of indigestion, or rather that the stomach is in an unhealthy condition. The proper treatment is that which will restore vigorous digestion.

Question. Would the practice of hygienic living make the people who are healthy, feel better than they do on the old habits?

Answer. Unquestionably; the healthier a man, other things being equal, the happier he will be, and as hygienic living tends to make him healthy, so it tends to make him happy.

Question. Please tell me the cause of varicose veins, and what the local treatment should be when they are much swollen and knotty.

Answer. The cause is, of course, weakness in the parts, with excessive taxation of the lower limbs. There is not much to be done in the way of local treatment, unless one should wear an elastic stocking. In bad cases, the elastic stocking is permissible, but it is much better to keep the difficulty within bounds by hygienic habits, avoidance of severe taxation, using the limbs in only moderate degree, etc. Rubbings, and even the wet compress, might be serviceable in a given case.

We were glad to hear from our friend, and send our congratulations that she has improved steadily in health.

Question. Is it hygienic to go bare-footed in the summer, if one feels more comfortable thereby?

Answer. Entirely so. I have no doubt that people at large would have much better health than they now have, if the feet were allowed to come in contact with "Mother Earth." Of course, any change should take place very gradually. To pull off the shoes on a cold, damp day, that a man has worn for years, and undertake to go barefooted, would be followed by serious consequences in the majority of grown persons; but after such person becomes accustomed to the new habit, there is decided advantage in it.

Question. Why is beef not the best food for invalids? Is it not the most strengthening food we can take, and does it not make more blood than any other food?

Answer. No food gives strength, but good food is that out of which vital power may be evolved. Beefsteak will not answer the demands for strength any more than will beef or bread, unless the person's conditions require the use of beefsteak. Every person should eat that food which his system needs. Some persons are benefited by the use of beef, some by the use of fruits, vegetables, grains, but, as a rule, flesh-meats are poor food for the majority of people. They should be eaten sparingly, and then should be from healthy animals that have not been excessively fatted. Stall-fed beef is one of the worst kinds of food, because it is crowded with impurities.

Question. Do you consider bathing with cold water in the morning on rising, injurious to health; how often shall a person in reasonably good health bathe?

Answer. Bathing in cold water in the morn ing on rising, is one of the most injurious practices that can be followed. I have known persons rendered substantially insane by the practice, and I have never known a person follow it who did not become so addicted to it that it was exceedingly difficult for him to relinquish it. In this respect the practice is to be compared with the use of any other injurious stimulant. Not one person in ten thousand possesses the ability to react against the chill to the surface which necessarily follows the use of cold water. To be sure, the patient feels warmer after his bath than he did, but it is because of a delusion of the senses. The surface is actually rendered cold by the use of the cold water, but the patient is deluded into the belief that he is warmer because of it, on the principle that a man who has been living in a temperature at zero would be dreadfully oppressed if the thermometer should suddenly go up to 70 or 80; and yet 70 or 80 is delightfully cool to a person who has been living in a temperature of 100. When a person cools his body off with water at 60 degrees, he will, of course, feel decidedly warm after putting on his clothing and restoring the temperature to 90 or thereabout. Indeed, under such circumstances, he will feel warmer with the skin at 90 degrees than he would feel with the skin at 98, the proper temperature, if he kept himself warmly clothed without any such exposure as the bath necessitates.

As to the frequency of bathing, let me say that this is to be regulated by the conditions of the person. The healthy person, engaged in cleanly occupations, can be kept entirely clean by a bath two or three times a week; nevertheless, during the heated season, and especially if engaged in dusty occupations, a bath may be had more frequently; even thongh the tendency of a bath always is to deplete the vital resources. The strong and vigorous person will not notice the depletion, and will not be appreciably injured by it; a feeble person, on the other hand, needs to be very careful to reserve his vitality.

Question. What would you advise for a young man who has had a severe attack of typhoid fever, and since recovery his joints are so stiff he cannot walk? His habits have been good, but I think his condition is due to the medication he received at the hands of the drug-doctors.

Answer. He must correct his habits, give up those that are bad, and live healthfully in all respects. His food should be hygienic, drink should be pure, soft water, he should have abundance of sleep, moderate exercise, a tepid bath twice a week, with thorough rubbings of the whole body. If the joints are at all swollen, wet compresses, covered by dry bandages, would be advisable. The steam bath, followed by a cool dripping sheet, would be serviceable; in other words, he should submit himself to general hygienic processes, in order to build up the general health. I agree with the writer that the difficulty is probably the result of drugs.

Question. When dining-room and adjoining sleeping-room are heated by an air-tight stove, where should the ventilator be put—in the ceiling or floor of sleeping room?

Answer. The ventilator which our correspendent expects to use, I suspect will be of no service, whether in floor or ceiling. If placed in the ceiling, the hot air will possibly escape, but who will say that the hot air is the impure air; if placed in the floor, unless it has some agency to draw the air through it, it would be of no use whatever. The ventilating flue requires that a heated pipe shall be introduced into it, or run through its centre in order to make a draft.

This adjoining and sleeping room may be ventilated in one of two ways, quite readily. The simplest is to lower the window at the top, or raise it at the bottom, two or three inches. When raised at the bottom, a piece of board three or four inches wide, placed across the window, should be set on its edge to intercept the cold air as it comes in, and to give it an upward tendency, so that it shall ascend to the ceiling rather than strike across the room and chill the inmates.

The other plan is, have the smoke pipe of the stove surrounded by a ventilating flue, so the heat of the stove pipe shall make a draft in the ventilating flue, carrying the foul air to the roof. The ventilator may be simply a tin pipe eight or ten inches in diameter, reaching within three or four inches of the floor, at which end it is to be open. The smoke pipe running from the stove into it, and running up directly through the ventilator to the roof, makes a powerful draft, carrying out the impure air from the floor of the house, and the impure air is undoubtedly at the floor, provided the house be close and warm. If there be cracks around the doors and windows, the impure air will be found at the top, while the pure air will be found at the bottom, because it is cold.

If this correspondent's pipe enters into a chimney built on the old-fashioned plan, then a ventilator should be inserted in the chimney, near the floor, if doors and windows are tightly closed; and at the top of the ceiling if doors and windows are not close.

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The Laws of Health.

Monthly, 50 Cents a Year.

ROBERT WALTER, M. D.,
Editor & Publisher.

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Associate Editor.

☞ All communications should be addressed to Wernersville, near Reading, Pa., the residence of the editor.

READING, PA., NOV., 1879.

OUR PLATFORM.

1. The vital power in the organism is the only healing power.
2. The rapidity and the certainty of cure depend as much upon the degree of vitality—the amount and quality of the vital force—as upon the distribution of it.
3. The symptoms may be changed and the disease often cured by reducing the quality or degree of this force, on the one hand, or by increasing it on the other.
4. Bleeding, purging stimulating, and all drug processes, as also the Water and Diet cures, as usually employed, cure on the former plan,—the plan of depleting the system.
5. The Nutritive-cure, on the other hand, cures only by building up, invigorating, and purifying the organism.
6. The true way to cure invalids therefore, is to distribute the vital force to its appropriate channels by means which shall increase, but never reduce the vital vigor.
7. This is done by the use of normal health agencies, which while equalizing the circulation, in which all nutrition takes place, increases the production or manufacture of vitality, and reduces expenditure.
8. The breathing, digestive and circulatory systems comprise the organs of manufacture; while the brain, and nervous systems comprise the organs of expenditure.
9. The organs of manufacture are largely muscular, and depend for the performance of their functions on muscular contraction and relaxation; while
10. The organs of expenditure are mostly nervous, and depletion corresponds to the excitability and activity of the nervous systems.
11. All processes are to be employed to invigorate the muscular systems special and general, while at the same time they tranquilize the brain and nervous systems, thus producing quiet, content and rest.
12. The Nutritive-cure embraces these principles, and by representing a scientific combination of exercising, breathing, bathing, eating, sleeping, resting, clothing, &c., is the only scientific system of medication in existence.

Progress.

The numerous testimonials to the value of the principles we advocate as set forth in THE LAWS OF HEALTH, go to show that the system we teach is not of imaginary importance, and that it is successful in practice, is another evidence of its truth. We do not like to urge too strongly the importance of our work, but, nevertheless, feel justified in giving the following, clipped from the *Progressive Christian*, from the pen of Elder S. C. Keim, who has been spending a few weeks with us. Some fifteen months ago, he remained with us a few weeks, greatly to his benefit, but returns to bring a friend, and finish up what should have been accomplished many months ago. The following will interest our readers.

FROM MOUNTAIN PARK HOME.

WERNERSVILLE, BERKS CO., PA., Oct. 15th, 1879.

Brother J. W. Beer:—I hereby acknowledge the receipt of the *Progressive Christian*, and tender you my thanks for your kindness. It is astonishing how the business of this place has improved in the last fifteen months. Dr. Walter has already three large and commodious buildings, besides cottage, and a number of tents, which he uses during the summer season; and has now in course of erection, two more buildings, one of which is to excel all the rest.

There are many wonderous cures performed here, and many much benefited. I find many people think there must be some strategy used in an institution of this kind, where no medicines of any kind are used. Some have interrogated me, saying, "Do they use words, and heal or restore by words?" I answer Yes and No. Yes, the physicians are God-fearing people and offer prayers for all mankind; and believe that God must bless their efforts and restore. They claim nothing more than to assist nature to restore the vital functions in man; and instead of leaving patients in a worse condition as others often do, who use medicine, they are always left in as good condition, if not much benefited or entirely cured.

It is also so morally. There is no vice or evil tolerated during the week; and on the Lord's Day public services are held in the parlor. On Sunday evening sacred hymns are sung. The society is excellent, and it is a very good place to learn to leave off bad habits, which are so ready to follow or cling to a person, even a professor of religion. I say No, there are no words used in the sense that some use them in a certain sign of the moon or the rising and setting sun; but all is done upon a system of common sense treatment, which Dr. Walter claims to be the author of.

There are many in our fraternity who are afflicted and are seeking for relief. I would say to such that I believe this Home to be the place to straighten the crooked limbs, heal old running ulcers, soften and nimble the stiff, rheumatic joints, lift up the cast down, and cure all chronic diseases which are curable at all, and where medicines have failed. There are but few here now who have been here any length of time; and all, or nearly so, are in the best of hopes of an early recovery, and a return home to their families and vocations in life. There are here some Shepherds of the fold of Christ, some farmers, some business men of the commercial world; others, mothers in Israel, mothers of family nurseries, while others are the belles of their homes. Excuse the length of this letter.

S. C. KEIM.

Is Medicine a Science?

Every one who has made experiments in chemistry knows that it is often difficult to obtain satisfactory results under the best conditions, and he cannot understand the reason of the failure. How much more delicate must experiments be, when one factor is the incomprehensible vitality of a sick person? Voltaire said that the science of medicine consisted in "putting a drug, of which the practitioner knows nothing, into an organism of which he knows less." We apprehend that no one will contend that the mystery is in any way cleared up at the present day.

Which is the most destructive to life, the cancer, or the knife? Intestinal worms, or destructive purgatives in the form of anthelmintics? Ague, or quinine? It may well be questioned whether these so-called remedies are ever even the least of two evils,—whether they are not always like the good-natured bear of La Fontaine, that crushed his master's mouth in the attempt to brush off flies.

Is there ever such a critical point in any disease where medicine can turn back the wavering tide of vitality toward the green shores of health? And if it is possible that such a thing may occur, with the present state of knowledge upon the subject, is there not great risk in giving a poison strong enough at such times to affect the system materially, when it is at the lowest ebb of vitality? Who can tell but we may be adding a poison to the already overloaded system that shall directly turn the scale towards death? And as in mild cases, the vital powers will remove the difficulty if left to themselves, why deal with deadly drugs at all? Who will attempt to contradict the statement of the great Dr. Rush, made a hundred years ago,—"every dose of medicine is a blind experiment upon the vitality of the patient?"

Are you in Earnest to Get Well?

The world is full of triflers who have no courage, no ambition and no stability, who are throwing away time and opportunity, God's most precious gifts to man, and are slipping out of life as one slides down a declivity into the unknown.

And in no department of life is there more trifling, or more folly, than in the matter of the obtainment and maintenance of health. The proverb that "The life is more than the meat and the body than the raiment" is fast becoming obsolete. The life is ground out in a vain search for houses and barns in which to accumulate, and the body is marred and worn in the attempt to obtain the raiment with which to adorn it; and when poor health comes, as come it will, we grasp at every flitting shadow, and strive to lay hold upon every absurd offer. Nothing is too wild, fabulous or unreasonable, if it but offers an easy way of recovering the lost estate. Gamblers in health are more common than house flies in August, and their victims are to be counted by hundreds in every graveyard; while the plan of recovering health by careful, patient and pains-taking labor is greatly at a discount. The easy road to health, like the easy road to heaven, has many patrons, but the good old-fashioned way of getting health by living healthfully is tedious and unfashionable.

But it is the only sure way, nevertheless. The laws of nature are opposed to any other. God's decrees stand forth in Omnipotent array against all the short and easy plans devised by inventive genius. The natural plan requires that the patient shall surrender passion, curb appetite, eschew folly, and cease the practice of doing evil that good may come. It requires that he shall be patient, persevering and persistent; but to all such it offers sure and certain health. "All God loveth he is constantly healing," and obedience to his laws secures the legitimate results. And not only is it the sure way but it is really the easier and the cheaper. The substantial and valuable though apparently expensive is nevertheless much the cheaper. The short and easy plans are lying schemes; their whole stock in trade is deception and trickery. They promise cure, but they never perform. They hold out delusive

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hopes that are never fulfilled, but each step that the unwary victim takes leads him still further into darkness and distress. Truly, "the way of the transgressor is hard." The plan of health by healthful living, on the other hand, leads from the gloomy deeps of disease, upward, slowly, steadily, but surely, to light and life and health and happiness.

Are you in earnest? After you have tried all the other plans and failed and the trifling spirit has receded into earnestness and anxiety, give the only successful plan a full and earnest trial and you will probably succeed.

Baking Powders.

By J. A. Tenney, M. D.

There are three common ways of making dough into bread. The first is to make the bread light by the use of yeast, which is a fungoid plant, capable of decomposing the sugars of which the flour is partly composed, changing them into carbonic acid gas and alcohol. The alcohol is evaporated in the oven during the process of baking, and so is most of the carbonic acid; but the latter makes innumerable bubbles of gas in the dough before it escapes, and so the bread is raised.

But bread may be made without decomposing its substance, by means of carbonic acid made within the dough, through the union of an acid and an alkali. This is in very general use, and is called *chemical* bread. The chemicals used are cream of tartar or chlorohydric acid and bicarbonate of soda. The celebrated baking powder called *Horsford's Preparation* consists of the soda and acid phosphate of lime, which produce carbonic acid by their union, and leave the phosphates of lime and soda in the bread.

Another method of making bread requires no yeast, chemicals, or even saline matter, which is popular in some places, producing what is called "aerated" bread. By this process the carbonic acid is manufactured pure in a separate vessel. The gas is then forced into water, after the manner of charging a soda fountain, and the charged water is used in wetting up the dough, in an iron vessel, and under strong pressure. When the dough is placed in the oven, the gas which the dough contains expands upon being liberated, and more by being subjected to heat.

Besides these substances used to make bread light, bakers often use other chemicals, so as to be able to use inferior flour, and make it appear like the best. Alum and blue vitriol are used for this purpose. Boiled rice and potatoes are also used to make the bread hold more water, and so weigh more than it would otherwise.

A great many families in the United States use baking powders instead of yeast to raise their bread. These powders usually contain bicarbonate of soda or carbonate of ammonia and cream of tartar. But the manufacturers of cheap baking powders do not by any means confine themselves to pure cream of tartar. They use twenty per cent. and even a greater proportion of alum in their composition. Now suppose a man can eat one pound of bread in a day; if these adulterated powders are used, it is a low estimate to say that two per cent. of the amount is alum. At that rate the man would eat two pounds of alum in three months and a-half!

Pereira, in his treatise on food and diet, says that six drams of calcined alum will kill a dog; and he supposes that the some dose will have a greater effect upon man, as his stomach is more sensitive. Says Dr. Hammond:

> "Alum acts by rendering the albumen less soluble. The use of alum in bread is injurious, both because it conceals the bad character of the flour employed, and because it is capable of exercising an injurious effect upon the bread, by rendering it indigestible. It is also probable that the continued indigestion of alum is calculated to disorder the healthy action of the system."

There can be little doubt that alum is a prolific cause of dyspepsia, constipation and inflammation of the stomach and bowels. Out of a large number of samples of bread analyzed in Boston, more than seven hundred contained alum. And Dr. Henry Mott, who was chemist for the government in the Indian Department, analyzed many of the baking powders in the market, and found alum as an ingredient in twenty-four of them. In one of the powders analyzed he found the proportion of alum to be twenty-six per cent. and in another twenty-nine per cent.

If people feel that they must use baking powders, it is far better that they shall use those they know to be pure, than to take the risk of buying such fraudulent compounds. But it is better to throw away all such mixtures, and eat only unfermented bread. In whatever way carbonic acid is used to make bread light, it cannot be introduced into the dough without destroying some of the vital constituents of the flour, and so render it more indigestible than it would be if they were not used.

Unfermented bread can be made by every one in small cast iron pans, which can be found in all hardware stores. The following is a recipe for making the best bread known:

Take fresh Graham flour and beat into a batter with cold water, as thick as it will stir smooth. Have the gem pans hissing hot, and oil them a little with mutton or beef tallow. Fill them full with the batter, and bake twenty minutes in a very hot oven. If the resulting bread is not light, it is probably because the oven is not hot enough. This bread may be eaten when warm or cold, and is the sweetest and most healthful bread in the world.

Health and Brains.

Some years ago the medical journals in the country were teeming with the account of a man who had his skull fractured, and two or three tablespoonfuls of brains oozed out at the opening, and had to be removed. The man was of little account before the accident, but afterwards he became somewhat noted for energy of body and mind. The only trouble in his case was clearly excess of brains.

If many men had fewer brains and more vigor of body, they would accomplish much more in life. As a nation we have an excess of brains. We have too large a development of the nervous system, and too weak physical endowment to preserve a proper balance. The body is the balance wheel to steady and control the power which is manufactured in the nerves; and if the regulator is insufficient, the whole machinery will shake and run irregularly.

Emerson says: "I can see nothing else at last in success or failure, than more or less of vital force supplied from the Eternal." But people do not make the most of that which is given them from the Eternal. If they would conserve and cultivate their native vital power, when the nervous side of their organizations is in excess, we would not have so many dyspeptic, nervous and insane people.

Good health is a very large ingredient in what the world calls success. If a man has the intellect of a giant, and an inferior physical organization, his acts will be those of a dwarf. A pound of vital energy and an ounce of intellect are better than a pound of intellect and an ounce of energy. No man can have a clear head if he has a crazy stomach. A small head with vigorous vitality is better than the head of Daniel Webster, if one has not extraordinary vital power to match it. As a rule, the Germans do not have overgrown heads; but they have physical organizations that enable them to endure protracted research, and they are the finest scholars on the face of the globe.

The guiding principle of our enterprise has always been that "whatever is worth doing at all is worth doing well," and to this end we are continually adding to the efficiency of our institution. We are glad to be able to announce an addition to our medical staff in the person of Dr. L. J. Price, an old school convert to the new system of healing. Dr. Tenney will still continue as heretofore in his laudable and laborious efforts to benefit suffering humanity, while in addition to Dr. E. C. L. Walter we expect soon to announce an additional lady physician. Truly truth is a mighty force in the battle against disease and death, and that we have the truth, the progress we are enabled from time to time to chronicle seems to prove.

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Chronic Rheumatism.

By L. Jones Price M. D.

In my last article I stated that the chief predisposing cause of acute rheumatism was a superabundance of lactic acid in the system, and that the acid was formed from the food introduced into the stomach.

The same may be said precisely of chronic rheumatism. Acute and chronic rheumatism differ only in the severity and duration of the attack—the former being ushered in with high fever, thirst, intense pains, acid sweats, and highly-colored urine with deposits of the urates and uric acid; the latter may result as a continuance of the former, only in a milder degree, or it may come on gradually with occasional deposits of uric acid in the urine. Persons past the middle period of life suffer more from chronic rheumatism than the acute form. The symptoms of chronic rheumatism are wearying and annoying pains in one or more muscles or joints. These pains are prone to move from place to place; sometimes they will be felt in the small of the back, then again in the muscles between the ribs, causing a sharp pain on inspiration; then in the region of the heart, eyes, or in the joints of the fingers and toes. In some cases all of these pains are aggravated at night, especially after getting into bed. They are also apt to increase in severity from exposure to damp weather, especially in the spring and fall of the year. The worst form of chronic rheumatism is that in which the disease affects the synovial membranes and the cartilages of the joints —the muscles and ligaments becoming dry and stiff, the synovial membranes failing to secrete sufficient synovial fluid to lubricate the joints, so that stiffness and pain on motion are the result.

After continuing for several months or years, deformity ensues from the drying up of the fluids of the joints, and the absorption of the cartilages. Sometimes the fingers will be so deformed as to give the appearance of the joints being bent backwards. The predisposing cause of chronic rheumatism, as I have said before, is the presence of lactic acid in the system. Lactic acid having nearly the same chemical composition as saccharine matter, it is readily seen how a saccharine diet kept up for some time would predispose a person to an attack of rheumatism.

People who live on a diet composed of rich foods, such as sweetmeats, eggs, sugar, milk, cream, flesh-meats, two and three times per day, are liable to have lactic acid formed in the system; and if the liver is torpid, the kidneys not active, and the action of the skin checked by exposure to damp and cool weather, rheumatism will likely follow.

Treatment.—All drug physicians aim to remove the effects of the disease, while little attention is paid to the causes. They attempt to neutralize the acid without correcting the causes which produce it. The treatment employed at Drs. Walter's Mountain Park, on the other hand, is directed to a removal of the causes of the disease. "Remove the cause and the effect will cease," is the philosophy there inculcated, and as lactic acid is, undoubtedly, the immediate cause, the treatment includes the eating and drinking of such substances as can be used for the building up of the general system and not be liable to undergo a chemical change which produces the cause.

A good, nutritious diet, which can be properly digested and assimilated, but which does not stimulate the vital organs, thereby exhausting power, nor ferment, thereby producing poisonous acids; but which supplies the necessary material for the repair of tissues and the production of vitality, is employed. It is vitality alone which cures disease, and every condition should be supplied both for its production, and its accumulation.

Fresh vegetables and fruits, as also the varied grains, are used abundantly, while flesh-meats are employed sparingly. Tea and coffee are looked upon as injurious beverages, and hence are not commended, while the completest rest of body and mind is secured.

Baths are given two or three times per week, for the purpose of cleanliness, not only, but to equalize and invigorate the circulation. In addition, we have the pure mountain air, untainted with miasms, sewer gases, smoke, and other impurities, with pure soft water as a beverage. Hard water, which is so frequently used by people throughout the country, is provocative, often, of rheumatic troubles; so much so, that it is very doubtful if a severe case of rheumatism can be cured, while hard water is used by the patient for any purpose.

The movement-cure is one of our most important appliances for this disease, and when administered as it is here, by experienced attendants, we get most excellent results. The local treatment depends somewhat upon the case to be treated. If there is much pain in the joints, hot fomentations, continued for 15 to 20 minutes, followed by cool, wet compresses, to be worn continuously, are often quite serviceable, and in many cases, where the parts are simply stiff and torpid, these appliances are equally valuable. Once in a while, in severe cases, a cool douche, such as may be had by pouring water from a height of four or five feet, from the spout of a tea-kettle, will be useful.

Manipulations of the parts are also frequently serviceable.

Rheumatic persons should be careful as to clothing, and should wear warm flannel next the skin, and guard against exposure to damp weather. Any checking of the circulation from exposure, from improper clothing, or from excesses in eating or drinking, tends to the production of the rheumatic condition, and hence should be avoided.

Hay Asthma.

A correspondent desires to know our treatment of hay asthma, and as the information will be welcomed by many of our readers, I comply with his request. In the first place, let me say that hay fever, or asthma, is due to an exceedingly susceptible condition of the mucous membrane, which becomes greatly irritated, and even inflamed, by the presence of spores floating in the air from certain vegetables. The rag-weed is especially an irritant to these sensitive organs. The treatment in this disease, as in all others, consists, primarily, in removing the causes. All influences which tend to irritate the mucous passages should be avoided, and hence the purest, dryest air is desirable; but much may be done in the way of regulating the habits of the person, so as to render him less susceptible to the special irritants.

Good health is a protection against all diseases, and to live healthfully is the true way to avoid disease. Whoever is subject to attacks of hay asthma, should pay particular attention to the general health; not only should pure air be breathed, but the lungs should be vigorous in their action; not only should wholesome food, and that which can be used to build up the structure, be eaten, but the stomach and liver must be in vigorous conditions; not only the person be cleanly in his habits, but special attention should be directed to the keeping up of a good external capillary circulation. Exercise should alternate with rest, and labor with sleep. Tea, coffee, spirituous liquors, tobacco, rich and highly seasoned foods, sugar, salt, butter, milk, flesh-meats in great degree, etc., etc., are all predisposing causes of hay fever; nevertheless, it is possible for the person's habits to be very correct, and yet the peculiarity recur at the usual times. In such cases every means of allaying the irritability of the mucous membrane should be adopted. The hot bath is often serviceable in relieving the spasms, and hot fomentations to the chest, or what is often better, hot fomentations between the shoulders, and cool compresses to the chest, are frequently very serviceable indeed. I have succeeded heretofore, in permanently relieving a patient by the use of hot fomentations, while most cases are decidedly benefited by breathing the air of our Mountain Park. In two or three cases, the air of this mountain has been efficacious where the disease had occurred periodically for a great number of years.

Questions Answered.

By Robt. Walter, M. D.

Hog and Hominy. I have noticed twice in your journal that these words have been associated together, as though both were unfit for food; how is it with hominy?

Answer. Hominy is excellent food, if properly prepared; but if cooked with hog's meat, and eaten as a coadjutant of bacon, it is not desirable.

Question 2nd. Is the exercising of the mental faculties congenial to health?

Answer. Most certainly. Mind is not opposed to body, provided the body is in a reasonably healthy condition. If a person is an invalid, it is best to rest the mind as a means of recuperation, but mental exercise is not opposed to good health; on the other hand, it is the natural and God-ordained means of using the vitality which is manufactured in the organism, and those

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persons who employ their powers in the performance of vigorous mental functions, live much longer and happier than those who exhaust themselves through bad physical habits. Infinitely better to study long and hard, than to smoke tobacco, drink whiskey, and live a life of indulgence. The brain uses up power, as do all the other organs of the body, but power was given us to use, and not to abuse. The more we think, the better we are, provided our system is in a good condition for healthful thought.

Question. Is it beneficial for a person in health to take a nap immediately after dinner?

Answer. After dinner is a poor time in which to sleep, but a nap before dinner is one of the most hygienic of all hygienic habits. The nervous system becomes quieted, circulation equalized, and the person in a condition for digestion which cannot be obtained in any other way. To sleep after dinner, is often to interfere with the digestive processes.

Question 2nd. Is the morning, immediately after rising, or evening, immediately before retiring, the better time for bathing? G. C. M.

Answer. There is comparatively little choice in ordinary cases, though I prefer the evening, provided the person retires early and is not exhausted by the day's labors. A person engaged in sedentary labors, not exhausted, will often sleep much better and be greatly improved by an evening bath of a mild temperature taken in a warm room, but no bath should be taken when a person is fatigued, or when his stomach is full, or when he is cold, or in a cold room.

SWOLLEN TONSILS. *Question.* In a case where the tonsils are so swollen as nearly to fill the passage to the throat, what is the probable cause? *2nd.* What will be the ultimate result if the disease is allowed to remain? *3d.* How is it affecting the general health? *4th.* Does it ever bring on, or terminate in consumption? *5th.* How should it be treated; if by surgical operation, would it be tedious? A SUBSCRIBER.

Answer. The lady has swollen tonsils because she is scrofulous, and the difficulty is to be remedied by improving the general health. The swollen tonsils of themselves do not induce consumption, though the condition of health which causes the swelling, often terminates in consumption. Consumption is a result of scrofula, and so are swollen tonsils. The swollen tonsils are not injuring the health to any great extent, and if they cause no inconvenience, I should leave them alone, unless they should become ulcerated. They should be treated only by restoring the general health. A surgical operation, though sometimes permissible, is generally to be avoided, though it is not a tedious or a dangerous operation. Let the young lady obey all the health laws, and expect to live much longer than if she begins tampering with her tonsils.

Question. In your paper, you advise the disuse of sugar and milk; please tell me how you make oat-meal and kindred foods palatable without them?

Answer. A good appetite is the best sauce. If a person will accustom himself to live upon plain, wholesome food, he will not require the varied condiments in order to have them palatable. I have not advised the entire disuse of milk and sugar by all persons, though I do say they are liable to interfere with the normal action of the vital organs in the majority of persons, if used by them. Oat-meal mush is to me one of the most agreeable foods without anything to it. I could not make a satisfactory breakfast without it. No doubt, however, if I had long habituated myself to the use of sweet and highly-seasoned foods, even oat-meal mush would be very insipid. Habit has a wonderful influence upon the tastes of the people.

I would say to our correspondent, the less milk and sugar you eat the better, but if you cannot possibly eat wholesome food without a little of these, then you must make a choice of evils.

Question. Cannot you write an article some time about plain foods, and their preparation?

Answer. The preparation of plain foods is as plain as the food is, and there will be no difficulty in securing plainness and wholesomeness if the person wills. There is a difficulty, however, in satisfying a depraved appetite with them. I propose to write an article on good appetites and how to get them, as well as upon plain foods and how to prepare them.

VORACIOUS APPETITE. *Question.* The question was asked last month, What shall I do to maintain control over a craving appetite, which increases as I eat? The gentleman gives a further description of his case: He says he is not a vegetarian, he lives hygienically, is not the subject of any excessive drain on the vital system, could eat from three to five pounds a day, if he yielded to the desire, etc., etc. He has long practiced the movement-cure, and been well acquainted with the hygienic system for many years, and yet his craving appetite does not cease. MINN.

Answer. Is the gentleman sure that he eats sufficiently for the needs of the body? He says he could eat from three to five pounds a day if he yielded to the desire. I think I eat quite that much every day of my life, and have no belief that I overeat. From three to five pounds per day is but a moderate quantity of food for a grown man, unless these pounds are almost exclusively of baked grains. A pound of bread goes a long ways, but three or four pounds of fruit or vegetables do not furnish a great quantity of nutritive material. I have known a person to eat three pounds at a meal, and yet it could hardly be said that he overate. Possibly, however, the gentleman eats sufficiently, and yet, having nervous dyspepsia, will suffer more or less with morbid cravings. If I knew the gentleman's habits in all respects, I think I could find out the cause of his abnormal cravings.

ABDOMINAL TUMORS. F. H. P., suffers from abdominal tumors which have grown to the size of a child's head, but her physicians say they are neither uterine nor ovarian, but I am not informed further as to their character. She asks if they are the cause of her increasing weakness, on which subject I am disposed to agree with her physicians, and say that they are not. But never having seen the case, and knowing little of it from the description, I can say nothing except that I believe the lady could be relieved of her sufferings, the tumors caused to cease developing, and her vigor be restored by a course of hygienic treatment. What she needs is a thorough application of the nutritive cure, whereby to build her up in health. Though her habits are generally hygienic, she is, nevertheless, not in a condition to build up outside of an institution.

THE DIET CURE. H. C. Webster has become much interested in our ideas, but complains that we give no rule of diet to go by, and wants to know what people's diet should be in general; what food for breakfast, for dinner, and for supper; what I think of jellies made from crab apples and other fruits; what is our opinion of dried beef; how we make bread that is as good warm as cold, etc.?

Answer. We suspect that our friend has not read our journal very long, or if he has, he has done so very carelessly, for I think all the questions he asks have been answered over and over again, but we repeat for the benefit of our readers.

Good wholesome food for grown people is made out of grains, vegetables and fruits, with a very moderate use of fresh flesh-meats, fish, etc.

We urge the importance of plain food, and plain food is that which is made up of nature's productions, from which are excluded spices, greases, sugar, cream, etc. For breakfast we advise oat-meal mush, graham gems, fruit sauce, raw fruit, or even a larger variety of any wholesome food, but we advise abstinence from a free use of butter, milk, sugar, molasses, salt, spices, etc. The less of these that is used, the better for the person. We reject them entirely, from our personal dietary. For dinner we advise vegetables, say potatoes, turnip, cabbage, beans, peas, corn, roast beef or mutton or chicken, with some simple dessert.

People of sedentary habits should abstain from supper. Laboring men should make of it a light, simple meal, say of unleavened bread and fruit.

Jellies are unwholesome to the extent that they are sweetened. Dried beef is better than corned beef, but not equal to fresh. The bread which we use is made out of cold water, with flour stirred in until a thick batter is produced, which is dropped from a spoon into hot gem irons, and cooked from twenty minutes to half an hour in a very hot oven. When properly made, this is a most delicious food, and is so simple that any body should understand its manufacture.

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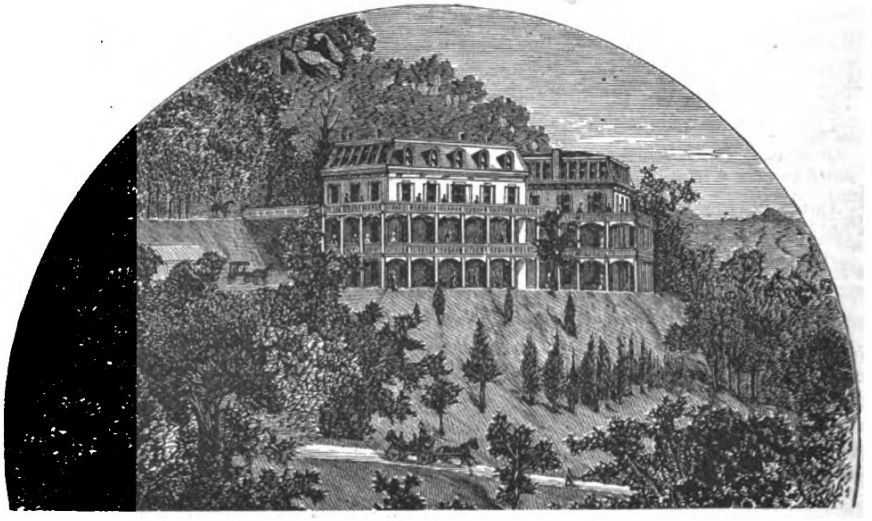

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THE COMING YEAR.

We have always had to regret our inability to meet to our own satisfaction the demands upon us for room, and this notwithstanding that we have added a large new stone building each year. For in spite of the "panic" and "hard times" *one* institution has grown; one business has developed—one man has been busy, and now

ANOTHER LARGE FOUR-STORY STONE

building is about to be erected which will double our accommodations during the coming year, and giving us, if not the largest, certainly the most successful institution on the continent.

SUCCESS IS THE MEASURE OF POWER.

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THE LAWS OF HEALTH.

SUPPLEMENT No. 2. NOVEMBER, 1879.

How to be Strong.

A Lecture by Dr. Robt. Walter to his patients, July 10, 1879, Phonographically reported.

LADIES AND GENTLEMEN:—Our subject this evening is certainly a very important one. How to be strong is what we all desire to know. In this age when debilities are so common, when feebleness seems to be the prevailing condition, when indeed it has come to be proverbial that the generations of men are growing weaker if not wiser, how to develop those conditions which shall insure to us health and vigor, and all the glorious capacities and enjoyments which legitimately result therefrom, is a subject fraught with the intensest interest to every man; and the more so when we reflect that this strength of which we speak, is not confined to muscle or nerve, not confined to those powers which belong equally to the brute creation, but includes all those functions and capacities of life which distinguish men from all other orders of creation. Function is the great end of physical life, and how to have vigorous organs, whereby to perform vigorous functions, should be the great object in view. How to have the most vigorous digestion, breathing and circulation, and all other functions of the organic life not only, but how to possess and show forth the most vigorous mental manifestations, those higher powers which naturally result from the possession of the lower, viz.: thought, feeling. will, intelligence, morality, &c., is our subject this evening.

Life is valuable only because of these capacities. "All that a man hath will he give for his life;" and much that he hath might he be willing to give for an increase of the powers of life. To be able to digest better, to breathe more abundantly, to circulate more fully, so that through these operations we shall be able to think better thoughts, possess nobler powers, exercise more excellent will, indeed be so much the more of a man or woman, is a laudable ambition, and every means that will contribute thereto is an object for careful study. Our subject includes, therefore, the improvement of all vital functions, the development of vital vigor in all departments of the physical and mental life.

The subject is even more important when we reflect that so little that is valuable is taught concerning it. The most indefinite ideas are afloat, and the most reckless advice is daily being given, even by those who possess the opportunities, and should realize the responsibilities that are upon them for teaching the truth. The quacks are daily at work advising this nostrum, and the other panacea, developing this fancy and urging the other plan. Since men have come to perceive the value of power, and ambition has been incited to its attainment, all manner of suggestions have been in vogue, and all manner of processes have been tried, and yet, as we said in the beginning, men grow weaker instead of stronger. Who but realizes his own incapacities, while we point in despair to the vigor of our ancestors.

By the popular plans men are *always getting strong, but never get strong.* Tonics and stimulants are being employed with a faith and a patience that would honor a Pagan before his god, and yet debilities are increasing with alarming significance. Health is sought to be obtained by the use of those things which destroy health; invigoration is hoped for through exhaustion; natural power is sought to be developed by defying nature; and hence the plans are by their very terms empirical and not scientific. We propose to you, ladies and gentlemen, a new system. The plan we advocate is nature's plan, and therefore the method is a scientific one. We have no secret compound to offer, no panacea to be sold at a dollar a bottle, but only can cite to nature's laws, by obedience to which we may be enabled to attain the most glorious results. Science is knowledge of nature, and the scientific method is that which studies the laws of nature, and applies them to the production of results, while all the methods of the schools—whether of ignorant or of *learned pretenders* to science, are intended to cheat nature, rather than to obey her.

Let us employ a little common-sense in the study of this subject. How are we to improve in strength and vigor? Are these not to be obtained through the very same plans, which have given us whatever power and capacity we now possess? Is not the natural way of getting power the scientific way of increasing power?

Nutrition alone, is the

SOURCE OF ALL VITAL POWER.

It is through nutrition that we came into existence; through nutrition that we have whatever vigor we possess, and our health corresponds precisely to the quality of our nutrition. This is not only true of all human beings, but of all animals and all vegetables. Life itself, wherever found, with all its wonderful capacities and enjoyments, is wholly the result of nutrition. But what constitutes nutrition? A more reasonable philosophy needs to be inculcated, than that which generally obtains. There is an opinion commonly received, that food and nutrition are the same thing. The medical profession are responsible for this error, even though they, themselves, know well that the difference between the two is very great indeed. It is one thing to have an abundance of good food, it is quite another thing to have good nutrition. It is one thing, indeed, to be able to eat abundantly of good food, and another thing to get strength out of that food. Food is one of the materials out of which nutrition is developed, and air is another, and water another, but neither one, nor all combined, constitute nutrition. Nutrition is a vital process carried on only in a living organism. It is a process of growth, development and invigoration. To eat good food, and enough of it, to breathe pure air abundantly, to drink proper fluids, in and of themselves are very desirable, but something more is needed in order to acquire health, strength and vigor.

HOW TO NUTRIFY.

All the operations of the organism are carried on by virtue of the process called circulation, which means the passage of the fluids of the body from the heart to all parts, and back again to the heart; the blood thus making a complete circle every three or four minutes. During this time several things of importance occur; but chiefly, nutrition on the one hand and purification on the other; processes which are exactly opposed to each other, and conducted in opposite systems of circulation. The pulmonary, in connection with the portal and renal circulations, exist solely for the purpose of taking up from the blood its impurities and giving back in place nutritive elements. On the other hand it is in the capillary circulation that all nutrition takes place—which means the taking up from the arterial blood material already prepared for use, and the giving out to the venous blood the waste or worn-out tissues.

Thus from the capillary circulation, we have the venous or impure blood, while from the pulmonary and portal circulations we have the arterial or pure blood. It becomes evident, therefore, that the arterial circulation exists solely for the purpose of supplying material to the capillaries, while the venous circulation is engaged in carrying the blood from the capillaries to the organs which shall purify it. The lungs, liver, skin, bowels, are the great organs of purification, and by and through these are all processes of purification carried on. The capillaries,

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on the other hand, are the great organs of nutrition, and in and through them is developed all strength, all power, all capacity; that is, the vitalized materials of the blood are used in the capillaries for the purpose of making tissues and organs—of making bones, muscles, nerves, &c., and the waste matters of the organism are given back in place. So that we have in a complex organism, various processes going on, and all of these processes contributing to, and intended for the

One Great End and Aim of Life,

nutrition or growth. It is for this reason alone that we eat and digest, that we breathe or that we secrete bile or urine or feces or sweat. For this reason alone, that the heart and arteries, the veins and lymphatics, perform their varied functions. Function is the great end and aim of life, and we are men, strong, vigorous, and healthy; or feeble, debilitated and worn out, just to the extent that we have good circulation, and therefore good nutrition. The quality of a man's nutrition depends precisely upon the quality of his capillary circulation, and hence, to improve the one is to improve the other.

How to improve circulation, therefore, and particularly the capillary circulation, is the all-important question. This will be more readily appreciated when it is understood that the power of the organs which circulate the blood, of the lungs to breathe, the stomach to digest, the liver and bowels and kidneys to secrete and excrete, depends upon the quality of their capillary circulation. With a poor capillary circulation in these organs, as in other organs, we have feeble functions of them, and hence the powers of life fail as a necessary result. But with improvement in the circulation, we have improved function, and so improved conditions of life. I must repeat, therefore, that the importance of a good capillary circulation cannot be overestimated, and the possession of it cannot be too certain.

We shall now direct our attention to the means to be employed in improving capillary circulation and consequent nutrition. To this end we are to consider that the quality of a man's circulation, corresponds,

First, to the force employed in performing that work, and

Second, to the amount of work to be done.

With abundant force we have good work, but if, for any reason, the force is diminished, especially if the labor to be performed is increased, we have feeble function and all the unfortunate results thereof.

Now the force which circulates the blood, like all other forces, is generated by a natural process, and every living being possesses a certain amount of it and no more. All that he or his physician can do, is to employ the force to the best advantage in reproducing itself, and the process of reproduction as we have already shown, is a process of circulation and consequently nutrition. The force which the man now has, whether he be in health, or whether he be an invalid, is properly compared to the seed which the farmer sows. He has a given amount. No more can be obtained except by using what he has, and how much he can obtain from it, depends upon how well he uses it. So, how much power a man may get for the purposes of digestion, breathing, circulation, for secretion and excretion, and the performance of the functions of mind, depends upon how wisely he uses the force which he now possesses. He cannot buy capacity. No physician possesses within his saddle-bags, or elsewhere, force to carry on the functions of a patient's organism. The power to live, to work, to overcome disease, is a power which belongs *in* him, and nowhere outside of him.

Though this is true, however, we would not be understood as affirming that no influences can be brought to bear upon the patient to affect his circulation for good. On the contrary, the appliances which we advocate and use, are such as do affect circulation in a very decided degree. We are able to get effects, both temporary and permanent, by the use of baths, movements, diet, mental and social influences, but inasmuch as these can be effective only to the extent that the obstructing causes of disease are removed, we shall restrict ourselves at this time to indicating the plans by which the labor of circulation may be reduced. We will confine our attention to the removing of all obstructing causes, to the regulation of the habits of life in such way as to facilitate the natural operations, and to place the organism in the best possible conditions for recuperation and growth, in a word, reduce friction to a minimum. In a succeeding lecture I will explain means which may be properly used from without, by which circulation, and consequent nutrition, with strength and vigor, may be improved.

The Economical Use

of the forces of the organism is the important consideration with us this evening. Waste, friction, foolish expenditure, must not be indulged; the food we eat, the fluid we drink, and the air we breathe, should contain only such elements as the system requires; should be composed only of such substances as are easily circulated and appropriated. To indulge habits which tend to obstruct the circulation, and consequent nutrition, and then to endeavor to gain health and strength by external appliances, is to be defeated. Men cannot expect good results from evil causes; cannot expect effects to cease while the causes remain. But, having improved their habits, by which the predisposing causes of disease are removed, they will then be in a condition to apply positive means to the improvement of the functions of life.

For a generation, or more, men have been urging the importance of food that is easy of digestion, and drink which shall aid rather than hinder the stomach, while if they had paid half as much attention to the attainment of material that is easily circulated and appropriated, we would have better health and more excellent capacity.

The effort should be to obtain the largest effect with the smallest possible outlay. The circulation of the blood in any organism is a laborious process at best. This will be more readily appreciated by an examination into the structure and extent of the circulating organs. In the first place, let it be considered that the amount of fluid to be circulated is probably in the neighborhood of 30 to 50 pounds in the adult man, and this fluid is required to pass through minute vessels miles in extent, from the heart through the arteries and capillaries, back through the veins to the heart. The arteries are comparatively large, and the blood flows through them with considerable ease; so, also, the veins; but the capillaries, those vessels in which all nutrition takes place, are exceedingly minute, being properly compared to the hair of the head, so small that they are not appreciable by the naked eye. These vessels ramify in all directions, are innumerable in number, and exceedingly complex in arrangement. The capillary plexus, or net-work, may be properly compared to the meshes of closely woven cloth. Few persons there are who have not perceived the blood oozing from these vessels; as in case of a cut into the flesh, the first thing seen is the clean flesh; immediately the blood appears at a hundred little openings, accumulating to the size of a pin head, when they run together and constitute a continuous flow of the vital fluid. Now these minute vessels from which the blood thus oozes, are capillaries, minute, delicate, easily obstructed, and at best, affording considerable friction to the passage of the blood through them.

It will readily be seen, therefore, that the quality of the blood, has very much to do with the quality of the circulation. Thin, pure, highly vitalized blood, which contains within it no impurities or extraneous substances, will be passed along with great rapidity, used, and the waste materials given up to the veins, and so the process of circulation and nutrition take place with both vigor and activity. Under such circumstances,

The Highest Degree of Strength

is developed in the parts because the nutritive elements are readily carried along and given up to the tissues. On the other hand, suppose that the blood is thick, viscid, loaded with impurities, acrid in its character because of them,

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can it not be perceived that circulation will be impeded, and nutrition be correspondingly faulty? Suppose that when the tissues are calling for a certain quality of material, some other material not needed, is offered. Suppose that when pure, healthy corpuscles are needed, that bile, or fecal matter, or other impurities are supplied, can it not readily be perceived that obstruction and ill-health must follow?

Here then, ladies and gentlemen, right at this point, I may call your attention to the existence of causes that are amply sufficient to the production of all the debilities, weaknesses, diseases, that afflict the people. Thick and impure blood is the immediate or existing cause, and the blood is thick and impure because the organs whose business it is to purify it, have failed in the performance of their functions. And these have failed, because they have suffered from lack of nutrition, as the result of obstructed capillary circulation, consequent upon impurities directly introduced through lungs, stomach, etc.

The food we eat, the fluid we drink and the air we breathe are too often the mediums for conveying into the system the impurities which are so destructive to life and health. In the first place, men feed upon the most concentrated diets, on the supposition that good health can come only through high feeding; on the supposition that the more a man eats the stronger he will get; and particularly has it long been urged upon the people that they must eat food that is easy of digestion; food which once introduced into the stomach will be readily introduced into the circulation. There never was a greater mistake. The trouble has never been in the use of food that is difficult of digestion, but in the use of that which obstructs circulation. In this respect I must criticise severely the habits of life common among the people. Old and young, rich and poor, have their systems loaded with carbons and hydro-carbons, with heating and stimulating foods over and above the wants of the system. The cry has been for thick blood, rich blood, when as it can readily be seen, thin, but highly vitalized blood, would be infinitely superior. Men do not suffer, as a rule, from want of consistency in the blood, but because of too much consistency; not from want of material, but from excess of material. There are more invalids to day, and more diseases as the result of good feeding, than ever there was as the result of starving. When I speak of good feeding, however, I mean *what the people call good feeding.* I believe in really good feeding, the highest feeding, eating an abundance according to the needs of the system, but I am opposed to all the plans of stuffing. To stuff a man, is to render him diseased, while to supply to his system that which the vital processes need in order to their efficient operations, is to secure health and its results.

The great mistake

IN THE MATTER OF DIET,

however, is not so much in the quantity as in the quality used. People should eat abundantly, but they should eat such as the system needs, rather than such as merely gratifies a morbid appetite. It is a well-known fact that sugars, candies, grease, salt, spices, and even starchy substances in excess, are productive of ill-health, and the explanation is that being exceedingly easy of digestion, when digested at all, they are readily thrown into the circulation, producing obstructions which interfere greatly with the nutritive processes. In addition much of the fluids used in the form of drink by the American people, if not so greatly obstructing, are, nevertheless, often poisonous, irritating the capillaries, and rendering the person liable to inflammatory, gouty and rheumatic diseases. Tea, coffee, wines, alcoholic liquors of all kinds, obstruct the nutritive operations not only, but stimulate, and therefore tend to exhaust the vital forces.

The air we breathe, is too often laden with impurities, which are introduced into the circulation through the process of respiration, producing very serious obstructions. Much has been said of late years of the nature of disease, and much more as to the causes of disease, but when this subject is brought down to plain common-sense, it will be perceived that the causes of disease are obstructions in the circulation; as the result primarily of unsuitable food, drink, or air, and the disease is abnormal action of the vital organs as the result of these obstructions.

Perhaps you would desire me to be somewhat more specific. Let me call your attention to some facts which bear directly upon this subject. In the first place, grease, including butter, is not digested in the stomach at all, but is absorbed into the portal circulation in the form of a fatty emulsion, and is immediately carried to the liver to undergo a change there which shall fit it for use in the general system. Again, sugar, and all sugary and starchy substances are exceedingly easy of digestion, and are also absorbed into the portal circulation to pass directly to the liver. Now, inasmuch as it is well known that these substances are used in very great degree by the American people, we can readily perceive how it is that the liver becomes overburdened with material, and so fails to perform its functions. Torpid or inactive liver is one of the commonest facts of life. Bilious conditions of the system are everywhere prevalent, and these resulting very largely from the excessive use of the substances which we have named. It is inconceivable that the butter, lard and sugar so extensively employed, are necessary to the health of the organism. On the other hand it is well known that these are among the substances which make that rich food, which is everywhere conceded to be at the bottom of many diseases. The use of milk, especially in great degree, is also frequently, a cause of obstruction in the circulation. The caseine, to be sure, is digested, but the salts, as well as the buttery particles, are absorbed into the circulation without going through the ordinary process of digestion, and if supplied in abundant degree, become a source of obstruction. Milk was intended for

CALVES AND BABIES,

but is not good food for grown human beings. I have had large experience and observation with regard to it, and have become fully confirmed that it is one of the poorest foods that the people can employ, fit only for young mammals, but no more fit for grown men than for grown cows.

Salt is a mineral substance, commonly used greatly in excess of any possible needs of the organism, and exists as an obstruction in the circulation. The processes of endosmose and exosmose, to which the physiologists refer as being regulated by salt, are obstructed by it, causing the system to suffer because of the obstruction. Spices, medicines, tea, coffee, tobacco, all tend in the same direction, to interfere with the nutritive processes by obstructing the circulation.

But though I speak thus fully in condemnation of varied habits of eating common to the people, I would not be understood as favoring in any degree, a spare or insufficient diet. Strength means good nutrition, and good nutrition requires an abundance of the material out of which nerve, and muscle, and bone can be evolved. Good food, and plenty of it, and such as the system demands, is a necessary concomitant of strength, and such food I would have supplied in abundant measure.

Grains of all kinds are good for human sustenance. Perhaps wheat is the superior of rye and corn and barley and oats, though I am sure that no better food is employed than oat-meal. Though these fill an important place in the dietary of healthy people, I would not restrict you to grains.

The fruits which grow upon the trees, vitalized by the sunlight, form a valuable addition to every man's dietary. Apples, pears, peaches, apricots, grapes, berries, etc., may be used abundantly and freely. They do not increase the activity of the liver, as some would have us believe; but they fail to obstruct it, as many of the rich and manufactured foods do.

Vegetables are also not to be eschewed. The potato, which has furnished sustenance for millions, serves as an important staple for the people. Beans and peas do not receive the attention to which they are

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entitled, being among the most nutrient and valuable of earth's products. Turnip, cabbage, parsnips, and indeed a dozen other vegetables, all fill a place, and are to be accepted as healthful food. But when we concentrate and manufacture, and alter, and produce new and entirely different substances, as the result of our inventive genius, we have departed far from nature's methods, and receive the consequences of our ill-doings. Earth is abundant in her stores, and yields them readily for human sustenance; and if men would devote themselves to the procuring of the necessaries, and even the healthful luxuries of life, they would have time enough and to spare for more noble pursuits. The expensive foods are those which are injurious. Men are forever exhausting themselves in vain attempts after that which can only bring them sorrow. They labor by day and by night to secure those things which "sting like a serpent and bite like an adder."

So much, ladies and gentlemen, for the negative treatment which in many respects is as valuable as the positive. What *not* to do is often quite as important as *what to do*. Health and strength are the normal conditions of man, and if we never did those things which enfeeble us, we would always be strong. Debility is the irrefutable evidence that we have violated the laws of health, and I can assure you that the first step toward recovery is comprehended in obedience to those laws. Prevention is not only better than cure, but it is the first step toward cure. We may not recover from effects while causes continue in operation, but remove the cause and the effect ceases. The causes of debility are undoubtedly innumerable, but the general conditions which are opposed to strength and vigor, I have indicated.

But perhaps you have already repented of the transgressions of health laws which have enfeebled you, and now are seeking to regain the lost estate; are now seeking earnestly those conditions which shall restore you to health, vigor and usefulness. Indeed, if I understand your views, you are here for this very purpose. Certainly this institution is established from no other consideration. It offers to all, the means of recovery, not simply from disease, but recovery of the vigor which naturally belongs to them. It does not represent a system which cures disease by reducing the vitality of the patient, or "which cures one disease by producing another," or which cures diseases by killing or partially killing patients; but it is employed in the effort to build up, invigorate, nutrify, those who come under its care, and it hopes to succeed by no other means. The positive agencies which it employs to this end are both numerous and effective, as well as philosophic; and while we expect to get great results from teaching our guests how not to get sick, we expect equally wonderful results through the application of means for their recovery when sick.

But time will not permit me to enter upon the discussion of these means. The appliances are comprised in general terms under the head of movement-cure, water-cure, food-cure, rest-cure, etc. Indeed, all the agencies which can affect human life for good, are intended to be employed here in a combination suitable to each case. No two cases are exactly alike, though it must be admitted that there is great similarity; but, exercise as well as food, bathing as well as rest, electricity, social influences, etc., are all comprised in the plans employed whereby to improve nutrition and consequent strength and vigor, and that these appliances are effective, you well know. Under their influences, you are enabled to gain flesh, some five, some ten, some twenty, and as high as forty to fifty pounds. You are enabled to gain strength of muscle so as to increase your exercises from week to week. You are enabled to gain strength of brain and nerve, until health which you have so long sought, returns.

To the elucidation of these subjects, I shall return at some future time and shall ask your attention; in the meantime, permit me to bid you adieu.

HELP! HELP!

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THE LAWS OF HEALTH.

Health is the normal condition of man. Remove the cause and the effect will cease.

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The Uses and Abuses of Water.

BY ROBERT WALTER, M. D.

Air and water are the two fluids necessary to life, both animal and vegetable. Being much alike as to their constituents, they also serve similar purposes in organization. Oxygen is the most important constituent in both, air being composed of oxygen and nitrogen, while water is composed of oxygen and hydrogen; the former being one-fifth by weight oxygen, while the latter is eight parts by weight, of oxygen, to one of hydrogen. There is this difference between air and water, however; air is the result of a *mechanical* mixture of the gases, while water is a *chemical* compound of them; and still further, the elements of air, yield to chemical combinations in the organism by which it not only furnishes materials for use, but also conveys from the system some of its impurities, while the water only receives and dilutes the impurities, and carries them out of the organism without itself undergoing any change. Water is therefore the chemical compound because it is not required to be changed in constituents by use, and air is simply a mixture of gases because these are thus more readily changed for use in the system.

Oxygen is the most abundant *element* in nature, while water is the most abundant *compound*. Fully three-fourths of the inorganic world is water; certainly three-fourths of the surface of the earth is covered with it. Equally true is it that three-fourths of all organized existence, whether vegetable or animal, is composed of water. Water is to animal and vegetable organizations what the rivers, lakes and canals are to our social and commercial life; it is the medium that floats the solid materials of structure to their appropriate places, and carries out from the organism the waste and worn out matters. The chief use of water, therefore, is the function of transportation, which is in reality the most important one of the organism. Nutrition is the first and greatest of life's functions; and nutrition comprises the breaking down of the old structures and the building up of new, thereby necessitating the continual movement of material to and from the varied organs, and in and out of the organism, and water is the absolutely necessary medium of exchange. This water, it is true, is sometimes made into steam for the same use, but whether the one or the other the methods of transportation in the land now so commonly employed, have their antetype in the human organism. Without water, all substances would be solid, hard, immovable; but with it, the animal tissues are kept soft and pliable, the blood, a fluid, and nutrition and life are rendered possible.

The excretions of the body are largely water. The urine, for instance, is nineteen-twentieths water, while the perspiration is only one-fortieth part solid matter, showing that it requires 19 to 39 parts of water to transmit without the body, one part of solid matter. Water is found in all parts of the organism, wherever growth and decay take place, even in the bones and in the teeth. Of course in these solid substances the water is comparatively slight, but it exists, nevertheless, as the necessity to nutrition. The bones are one-eighth water; the teeth, one-tenth; the skin, one twenty-fifth; cartilage, one-half; muscle, three-fourths; brain and blood, four-fifths; bile, milk pancreatic juice, nine-tenths; urine, lymph, gastric juice, nineteen-twentieths; while perspiration and saliva are thirty-nine fortieths.

Water is not only a necessary constituent of all organisms and of all substances that enter into the composition of a human organism, but it is being constantly changed. It has been calculated that a healthy adult man takes into his system about four and one-half pounds of water daily, and of course casts as much out. Much of it he takes in with the food he eats, some of it is drink, while he casts out in the urine about two pounds, through the lungs, one pound, somewhat over a pound through the skin, &c. This water is cast out, carrying with it impurities, in order that pure water may be introduced in its place to carry out other impurities; for water is the great cleanser, to be used for cleansing the body internally just as truly as externally, and hence in order to serve its purpose in the highest degree, only pure water should be used.

Pure water is that which contains no element save its own proper and unvarying constituents; but like air, it is a difficult thing to obtain it free from all extraneous substances. It is so powerful a solvent that it dissolves a little of nearly everything with which it comes in contact. As it filters through the earth it dissolves many of its minerals, while it also takes up impurities of various kinds both animal and vegetable. The impurities found in water, therefore, may be described as mineral, vegetable and animal. The form of mineral impurity found in water generally, is salts of lime, either carbonate or sulphate, making what is known as hard water. The proper test of hard water is soap. When soap comes in contact with the sulphate of lime, as in washing, it curdles, forming a new soap which will not dissolve, and which is often seen floating on the surface in the form of a greasy scum. The better plan of testing water for lime, is to "dissolve a little soap in alcohol and place a few drops of it in the water to be examined. If it remains clear, the water is perfectly soft; if it becomes turbid or opaque, the water is ranked as hard." Other mineral impurities in water are iron, soda, magnesia, chalk, etc., which always render the water objectionable for use. Mineral waters are simply another form of drug medication, and are employed upon the same principle, viz: to cure one disease by producing another. If it is proper to use iron and lime, alkalies and acids, calomel, strychnine, arsenic, etc., whereby to cure disease, it may be right to employ mineral waters which contain these poisons, but if we are to reject the one plan of drugging the system, we are to reject the other. Minerals in water are poisons. and are not to be employed for cooking or drinking, because the impurities, no matter of what kind, are foreign to the organism, cannot be used in the vital processes, and hence tend only to obstruct, derange and exhaust vital power in the attempt to carry them out.

The kidneys are the organs that take up and cast out most of these mineral impurities. The lungs and skin carry off their water chiefly in the form of vapor, leaving the solid impurities behind, and hence the removal of these is left for the kidneys or bowels to perform. It is not wonderful, therefore, that kidney diseases are very common among people who use hard water. Gravel, stone in the bladder, etc., frequently follow its use. Hard water is irritating to the mucous surfaces, obstructs the circulating fluids, and for various reasons is the common cause of bilious and dyspeptic disorders; or, if not in itself an adequate cause, certainly an aid in their development.

But if mineral or inorganic impurities in water injure its qualities, and are productive of disease, organic, or vegetable and animal impurities are doubly so. A recent work, entitled "Scientific Conversations," by M. Porville, of Paris, says "*Popular Science Monthly*," gives the following reasons for considering organic matter in water dangerous to health:

"How does organic matter become dangerous? We must not believe that it constitutes, as is superficially said, a toxic element. The phenomenon is more complex. The organic matter in suspension or in solution, creates in the water a peculiar medium, suitable for the development of exceedingly small beings of the genus vibrio. It is no longer mere water; it is a world of microscopic animals and plants, which are born, live and increase with bewildering rapidity. The infusoria find in the water calcareous, magnesium, and ammoniacal salts, and their main-

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tainance is thus secured. Drink a drop of this liquid and you swallow millions of minute beings; but there are vibrios and vibrios and some are capable of setting up putrefaction in our tissues. These are our enemies, often our deadly enemies. Let water be placed in contact with organic remains, capable of nourishing these malignant vibrio, and it at once becomes more dangerous than any poison."

Let him therefore who desires good health, be scrupulously exact as to the water he drinks. Next to pure air, pure water is the essential of life, and it should contain no mineral, vegetable, or animal matters. It should contain nothing that does not enter into its composition as water, and therefore to be found in all waters.

How and where to obtain pure water is the next consideration, and a very important one. Water containing impurities is much more plentiful and easily obtained than pure water, so that if we are not both intelligent and energetic with reference to this matter, we will be found contenting ourselves with water so impure as to be destructive to health and consequent happiness.

Scrofula.—No. 20.

By J. A. Tenney, M. D.

Consumption. There are three distinct forms of consumption of the lungs. One follows pneumonia, being caused by retained lymph in the lungs after the severe inflammation which constitutes that disease. In cases where pneumonia has a favorable termination, this lymph is absorbed, and the lungs become free; but in a small proportion of cases, it remains within the lungs, causing after a time ulceration, which usually exhausts the patient's vital powers to that extent that he dies of general weakness.

Another variety has been called catarrhal consumption, because it commences in the bronchial tubes, and is a sequel to chronic bronchitis. In this form, ulceration of the bronchial tubes takes place, which often causes hemorrhage. Those affected with this form of the disease, and the preceding variety also, have a chance of recovery if they have great constitutional power.

The third form of consumption arises from the deposition of tubercles in the air-cells. As has been explained in previous articles, tubercles are composed of cheesy matter, which closely resembles the tissues where they are found, but are so deficient in vitality as to break down sooner than healthy tissue. Another unfortunate peculiarity is that they are seldom if ever removed without ulceration of the lung substance; hence very few recover from this form of the disease, for ulceration to any great extent in so vital an organ as a lung, necessarily produces great weakness in the whole organism.

The physician is called upon to discriminate between these different forms of disease; and to do so requires the nicest judgment and skill. Previous to the present century very little was known upon this subject. Laennec was the first to point out a system of examination, by which the exact conditions of the lungs may be determined. This is accomplished by observing the variations in the sounds produced in the lungs by breathing, in health and disease. There are two important methods of ascertaining these variations, called *auscultation* and *percussion*.

Auscultation. By this term is meant the method of listening with the ear applied to the surface, or else with the intervention of an instrument called a stethoscope. Laennec thought the use of the stethoscope was essential, but most practitioners prefer the ear alone. The first thing required is to know what are the normal sounds of the part to be explored; after that it can be determined how wide a variation there is from a state of health.

In health there are two sounds caused by breathing; one called the *vesicular*, being caused by the air rushing into the air-cells; the other is called *bronchial*, because it is generated in the bronchial tubes, by the friction of the air passing through them. It is greatest at the throat, and very much resembles the sound produced by blowing through a tube outside of the body. It diminishes as the bronchial tubes grow smaller, and in the lower and lateral portions of the lungs it is lost entirely. It is more distinct on the right side than on the left, because the bronchial tubes are larger in the right lung. The bronchial sound is heard nearly alike in inspiration and expiration, while the vesicular sound is hardly heard except in inspiration.

The *vesicular* sound is caused partly by the vibration of the air as it enters the air-cells, and partly by their expansion. It resembles the murmur of a gentle breeze sighing through a pine-tree top. This sound varies considerably in different persons while in health; in nervous people the sound is generally greater than in healthy persons, because their rapid breathing expands the air-cells permanently. But when the vesicular murmur is increased in one part of the chest and lessened in another, it is safe to say that the diminution of sound is owing to a diseased condition.

Obstruction in the lungs may arise from the deposition of lymph as a consequence of pneumonia, or it may result from the formation of tubercles. The history of the case is an indispensable aid in deciding many questions that are likely to arise. Sometimes the sound of the lungs is diminished on account of weakness in the air-cells, making them unable to expand.

At the upper portion of the lungs the vesicular and bronchial sounds may be heard at the same time; but the bronchial murmur is lost in the extremities of the bronchial tubes, as before stated. But sometimes this sound is heard where it should not be in health; in such cases it is due to a solidification of the lung substance, making it a better conductor of sound; this indicates that tubercles are beginning to be formed, and as it is of great value in determining the nature of the disease.

The above signs are but slight variations from the sounds heard in health. But there are other sounds that are entirely different, and which indicate every stage of pulmonary disorganization. These are called by the French *rales*. They are divided into dry and moist. The *dry rales* are caused by the forcible passage of air through tubes made smaller by thickening of their walls, by spasmodic contraction, or by adherent secretions. Sometimes the sound is like moaning, and sometimes it resembles whistling. The latter is more liable to occur in the smaller bronchial tubes.

The *moist rales* are caused by the passage of air through liquid in the bronchial tubes. They are divided into *mucous*, *crepitant* and *subcrepitant*. The *mucous rale* is a sound like bubbles rising to the top of water, which is the actual condition, in the larger portions of the bronchial tubes. It is often so loud as to be heard quite a distance from the patient This condition belongs to cases of catarrhal consumption, the disease being for the most part confined to the bronchial vessels.

The *crepitant rale* is a fine, crackling sound, like that made by rubbing a lock of hair between the fingers near the ear. It is confined to the small bronchial tubes and the air-cells, and, like the mucous rale, it consists of bubbles bursting through liquid, but in very minute space. The mucous rale is relieved by coughing, but the crepitant is unaltered, and when it occurs, is apt to remain for some time. A peculiarity of this sound is that it is only heard during inspiration.

The *subcrepitant rale* is intermediate between the two foregoing. It is heard both in inspiration and expiration. It is a bubbling sound, but the crackling is finer and more regular than the mucous.

A prominent symptom of lung disease is what is called *friction sound*, which is caused by the rubbing together of the pleura, or membrane which envelops the lungs, and the same membrane which lines the chest. It is always a morbid sound, consequent upon a roughening of the pleural surfaces, caused by a deposition of lymph as a result of inflammation.

There are other aids toward determining the condition of the lungs, such as coughing, speaking, etc., while the examination is being made; but they are of less importance than the processes we have described. Our next article will consider the method of examining the lungs by percussion.

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Ventilation.

By Robt. Walter, M. D.

The most efficient ventilation is produced by continuous currents of air from within out, and from without in, and different temperatures of air accomplish this purpose more certainly than any other means. Heated air always rises, while cold air settles down in obedience to the law of attraction of gravitation, because cold air, being dense, is heavy, while air that is rarefied by the heat, is light and consequently ascends. Heat is, therefore, the natural force of ventilation. The winds are produced by this means. The heated air of the torrid zone rises far up, while the cold air of the temperate and frigid zones presses down, so that, in general terms, we have breezes from the north, often from the east and west, sometimes from the south, in obedience to this law of attraction of gravitation. As the heated air rises, a vacuum would be produced, were it not for the fact that the cool air rushes in to fill its place.

In the ventilation of buildings, however, we are to consider the subject of heating as well as ventilating. The open fire-place was a grand means of ventilation, but at the same time it was an exceedingly inefficient means of warming. A draft it produced, undoubtedly, but in doing so, most of the heat was carried up the chimney, and the air that was taken out with it was too often the purest and best air of the room. The heated air, which should have remained to warm the inmates, was carried out, producing a vacuum, and the cold air from without entering through cracks in doors, windows, etc., kept the room in the external parts cold, so that with a good, roaring fire on the open grate, we might be roasting on the one side, while freezing on the other.

The most perfect system of heating and ventilation is the open grate for the purpose of drawing the cold air out of the room, while an abundance of pure, well-warmed air should come into the room on the opposite side. Indirect radiation of steam heat, that is, where pure air passes over steam radiators placed in the cellar and becoming warm, ascends through a flue into the room while the chimney is withdrawing the air already in the room, forms the most perfect system of heating and ventilation at present known. A good wrought iron furnace of sufficient capacity that it need never be heated to red hot, is next in value to the steam heater for supplying pure, warm air to rooms, while the hot air ventilating flue may equal in value the open grate for drawing off the foul air. But we will consider this subject further on, and at present shall undertake to deal with the more simple, if less efficient, systems of ventilation.

The great majority of the people do not have the means for perfect heating and ventilation. The process is an expensive one, and expense must always be taken into consideration. Dwellings also are already constructed, and we must consider them as they are, not as we would like them to be.

Ventilation of All Buildings.

Rooms with windows in them may be partially ventilated by lowering the window at the top or raising it at the bottom. The objection to this plan is that cold currents of air pass in upon the persons of the inmates, chilling them, thus producing coughs, colds, catarrhs, etc. This difficulty may be obviated in part by raising the window at the bottom, and placing across the opening, a couple of inches within it, a piece of board, of say six inches in width, stood on edge, which shall intercept the cold air as it passes in, giving to it an upward tendency, so that it shall rise to the ceiling and become warmed by mingling with the air in the room before it descends upon the inmates. This plan is superior to opening the window at the top, especially where the rooms are heated by pure air from furnace or steam heater; because in this case the heated air which should be used by the inmates, ascends to the top of the room, crowding down the cold air, and as the window is open at the top it escapes before the object in view in introducing it has been accomplished. It is therefore a wasteful method, the method of introducing pure, warm air into a room and allowing it to escape immediately, while the cold, and often impure air, remains within.

Another important result is obtained from this unfortunate method, namely: that the floor of the room is kept continually cold, while the upper portions are heated, and as a result, hot heads and cold feet, a very undesirable condition of the inmates.

But we will suppose that the building is heated only by the cast iron stoves, with a smoke-pipe to the chimney, and that no arrangements have been made for ventilation. In such case, the door of the stove may be kept open much of the time, by which the air of the room shall be carried up the chimney, or a ventilator may be placed in the chimney, or in the pipe, which when open allows the air of the room to pass in. The same objections, however, are found to these methods that obtain in the open fire-place; the warm air is carried out and the cold air comes in. Under such circumstances the stove may be red-hot, while the room at its further extremities may be cold even to freezing.

A cheaper and more efficient method of ventilating buildings that are heated by stoves is to run a tin flue from pretty near to the floor of the room through to the roof, say a flue about ten to twelve inches in diameter, and into this the stove-pipe should be introduced, say about two feet from the bottom, and should run clear through it, also to the roof. The tin flue becomes a grand ventilator because the heat from the stove-pipe passing through it, makes a powerful current of air, which draws off the air from the floor of the room, and carries it out above. By these means the cold air is carried out, while the warm air which is found in the higher portions of the room remains, and soon the room will be warm all over, both on the floor and at the ceiling. There is one difficulty, however, which must be considered, namely: as this air is continually being carried out, new air must be introduced, and if it is allowed to come in at the cracks and windows, and doors and key-holes, it will tend to keep the room cold notwithstanding the good fire, and consequent waste of fuel. Under such circumstances it is desirable that the stove be placed near a window, or other opening, and a flue be connected therewith, which shall bring the cold air into the room and discharge it immediately upon the stove to become heated, and from thence be carried to all parts of the room. To have a room warm and comfortable, we must circulate through it, warm air, not cold air. Before the cold air is permitted to permeate a room, it should be heated, and to bring it directly to the stove, and discharge it upon the heated iron, is the proper way if the room is heated by stoves. This plan of ventilation is the simplest and most convenient plan known, being an ingenious one for accomplishing by inexpensive methods what the widest experience has shown desirable in the expensive plans. The cost of such an arrangement is comparatively slight, and it will more than repay itself in full in a single season. The more expensive plans of heating and ventilation will be discussed at another time.

The habit of resolving without acting is worse than not resolving at all, inasmuch as it gradually sunders the natural condition between thought and deed.

From our new dictionary:—

Drug medicine: A substance which temporarily relieves a difficulty by permanently fastening upon the patient the conditions that produce it.

Homœopathic medicine: Two grains of powdered chalk thrown into Lake Erie at its western extremity and two drops of the water as it passes over Niagara Falls.

Allopathy: A system which cures diseases by killing or partially killing patients.

Homœopathy: A system which changes symtoms and thereby satisfies patients.

Eclecticism: Anything to please the patient. Diseased means displeased. Please the patient and you cure the disease.

Allopathy teaches this fundamental fallacy, viz: That disease is properly cured by producing another and a greater one.

Homœopathy teaches an equally absurd doctrine, viz: That the part is greater than the whole.

Eclecticism is none the less fallacious in that it believes that two things bad make one good.

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The Laws of Health.

Monthly, 50 Cents a Year.

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OUR PLATFORM.

1. The vital power in the organism is the only healing power.
2. The rapidity and the certainty of cure depend as much upon the degree of vitality—the amount and quality of the vital force—as upon the distribution of it.
3. The symptoms may be changed and the disease often cured by reducing the quality or degree of this force, on the one hand, or by increasing it on the other.
4. Bleeding, purging, stimulating, and all drug processes, as also the Water and Diet cures, as usually employed, cure on the former plan,—the plan of depleting the system.
5. The Nutritive-cure, on the other hand, cures only by building up, invigorating, and purifying the organism.
6. The true way to cure invalids therefore, is to distribute the vital force to its appropriate channels by means which shall increase, but never reduce the vital vigor.
7. This is done by the use of normal health agencies, which while equalizing the circulation, in which all nutrition takes place, increases the production or manufacture of vitality, and reduces expenditure.
8. The breathing, digestive and circulatory systems comprise the organs of manufacture; while the brain, and nervous systems comprise the organs of expenditure.
9. The organs of manufacture are largely muscular, and depend for the performance of their functions on muscular contraction and relaxation; while
10. The organs of expenditure are mostly nervous, and depletion corresponds to the excitability and activity of the nervous systems.
11. All processes are to be employed to invigorate the muscular systems, special and general, while at the same time they tranquilize the brain and nervous systems, thus producing quiet, content and rest.
12. The Nutritive-cure embraces these principles, and by representing a scientific combination of exercising, breathing, bathing, eating, sleeping, resting, clothing, &c., is the only scientific system of medication in existence.

Experience, and What it is Worth.

It has often been said that experience is the great teacher, which is true; but it makes a great difference whether you experiment upon yourself, or upon others The invalid who continues to live, undoubtedly learns much, but it does not follow that the physician is equally expert. Too often he sits down, content to make his prescriptions, apply his treatment, and take his fees. If the patient gets well, he is pleased; and if he does *not*, he is satisfied. The why, or the wherefore, he may be too indolent to enquire. The writer was for a dozen years the victim of malpractice, and he has often had to wonder how his physicians could have been so dull as they evidently were. But that he is not alone in his experience, the following, from a correspondent, plainly shows:

"I have received THE LAWS OF HEALTH and am much pleased with it. Last summer I met a lady who had been spending a few weeks with you, and she spoke gratefully of your kind attentions and highly recommended your Mountain Home. I have been suffering from ill-health for some years, and, living in a malarious locality, I realized that I never should be well here, so I went to ——— water-cure. They told me that I could become strong and well, but must be pulled to pieces first, and then built up anew; for I was saturated with malarial poison, and was quite ill for several weeks with chills and fever. I took a severe course of treatment; Turkish baths every day until completely exhausted, and local treatment for congestion of uterus. I did *not* build up as the physicians predicted. They say that I have a very delicate constitution, etc., etc., but now that I no longer take three or four cool baths a day, I find that I have very little endurance. I have no faith in drugs, and yet am not resigned to permanent invalidism. Can I come to you?"

Truly, one may live long, and learn little, as is proved in this case. That physician surely must have been indolent, if nothing else, who could soak, and souse, and scald, and chill a weak, feeble, nervous invalid, by the year, without benefit to her, notwithstanding he has followed just such practices for thirty years—three or four cool baths a day, a Turkish bath until the patient is exhausted, and yet that man would feel hurt if I were to say, he was either very lazy or very stupid.

This lady writes to me because she met the only patient that has left our institution to visit another during the year; but she gave a glowing account of the results of treatment at this place. True, she thought that two or three baths a week with movements, manipulations, rubbings, good hygienic diet, the purest mountain air, the softest water, the grandest scenery, etc., were hardly sufficient for her needs, and wished something more vigorous; and I know if she remained at that institution, she received it. But I judge her experiences were not satisfactory, or she would not speak of this place so "gratefully."

HOW TO PURIFY.

It is astonishing that a logical human being should consider that a Turkish, and three or four other baths per day, are the true means of purifying the system of malarial poison. Let us consider, for a moment, the natural process of purification in a human organism, and ask ourselves if the natural process is not the true and successful one. First, let us remember, that the liver, kidneys, bowels, lungs, skin, &c., exist for the purpose, chiefly, of purification, and that through these, malarial, as well as other poisons, are carried out. By a reference to the laws of health, also, is it not well known that these organs will do their work if they possess the power, and that the only true way of purifying the system, if it becomes impure, is to invigorate these organs? How is an organ invigorated by pulling the organism to pieces? How is it that the liver, kidneys, bowels, skin, work more effectively when depleted to the greatest extent, than when in moderate conditions? How *can* a physician be so dull as to suppose that by exhausting a patient in a Turkish bath, he is getting the system purified? If it were true that the malaria was being rapidly sweated out for an hour under the influence of heat, is it not equally true that the organs cease to exhibit their usual activity for the succeeding hours? Exhausting a patient simply incapacitates his organism for its work. To relax a patient by excessive heat until he is exhausted, and tone him by cool baths until he is still further exhausted, as the actual practice has been, suggests the same kind of lunacy that has induced physicians to poison patients to death in the attempt to cure them. There is no absurdity too great to be practiced if it has been taught sufficiently long. About three-fourths of a man is education, and it does seem that among physicians there is little else, or such practices could not be indulged. The man who pulls down a given organism, with the expectation of building it up again, is just as wise as the four year old boy who takes to pieces his father's watch, out of curiosity to see if he can put it together again. It is a comparatively easy thing to manufacture a machine, put it together, take it apart and get results from it; but it requires a sharper, keener, and wiser man than our physician to pull to pieces a human organism, and then build it up. He can pull it to pieces, undoubtedly, but if life continues, the patient is compelled to seek some other source for being built up. The only successful plan of dealing with invalids, of this class at any rate, is to improve the nutrition of the organism as a whole. The invalid is low enough, pulled down enough by bad habits and disease, without the physician undertaking to make matters worse. What is needed is invigoration of the vital organs through natural processes.

This subject we have so fully discussed through THE LAWS OF HEALTH, during the last year, that it is not necessary, even if we had the space, to repeat. Invigoration should be carried on through breathing, digestion, circulation, and to the improvement of these, all hygienic processes, according to the conditions of the patient, are in order. Neither Turkish baths, nor any other baths, possess any power to vitalize a human being. Once in a while, a Turkish bath may supply the necessary conditions for recuperation, but where it does it once, it fails a thousand times, as applied at the present time in this country.

Our new work on the hygienic treatment of sick people, will enter into this subject quite fully. In the meantime, we commend our readers to the principles set forth in this journal.

Diphtheria in Russia.

A recent cable dispatch to *The New York Herald* says that diphtheria is gaining ground in Russia, where it has been making great ravages for several years. More than eleven large districts are afflicted with the disease. The epidemic commenced in 1875. In one small district the death rate from diphtheria was 414 in 1875, and no fewer than 1,308 died from the same cause in 1877. In Odessa, the disease has carried off seventy-six per cent. of all the children since last

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May. In many villages, fifty per cent. of all the infantile population have fallen victims, and in some hamlets not a single child escaped. So frightful have its ravages become, that the Russian Government has appointed a special commission to inquire into the causes of the disease, and, if possible, to prevent its spread. We apprehend that it will be very easy to ascertain how the epidemic originated. We know that bad air and bad water are the chief sources of such diseases in our cities and villages, and we have no doubt that such will be found the case in Russia. Diphtheria is caused by blood-poisoning; and the peculiar virus which produces it arises from the decay of animal excretions. Where families have privies and pig stys in the vicinity of their wells, and on higher ground, as is frequently the case, the filth from these percolates through the ground, and so the wells of a district become impregnated. Then, as no care is usually taken of these outhouses, they are prolific sources of foul air. Dr. B. W. Richardson of England, a high authority, says that bad air is much more liable to poison the inhabitants of a valley than those who live on rising ground, because currents of air are less frequent in low lands. Pneumonia, typhoid fever and diphtheria generally originate in the manner before mentioned; and after diphtheria gets started, it spreads rapidly, as it is more contagious than small-pox. We are glad to learn, that after this terrible disease has had unlimited sway for four years, the people of Russia have at last got awake to the fact that the matter may be remedied by being looked into. We anxiously await the report of the government commission.

Health of Teachers.

The very greatest requirement for successful teaching is good health. If teachers lack this, their work will be of little value, whatever scholarly accomplishments they may possess. The drafts made upon their vitality are necessarily constant and pressing, and unless care is taken to counteract the injurious effect of nervous strain, they will find themselves bankrupt in vital vigor before they are aware. Teachers do not ordinarily become sick from overwork, but from worrying. Work strengthens the mind and body, but worry ruins both. Mental labor, that is easily and naturally performed, gives the mind a kind of satisfaction that tends to balance the circulation of the the blood, sending it coursing through every artery, capillary and vein in a natural manner; but worry causes the blood to accumulate in the brain and spine, and the teacher complains of dyspepsia, sleeplessness, headaches, and constantly wears a flushed face. Other diseases present themselves in regular order, and after a vain attempt to work on under the constantly increasing load, the physician is appealed to, who prescribes chloral for the sleeplessness, and a round of stomach tonics and nervines, all of which temporarily relieve the discomfort, but make the matter worse in fact, for they really call the vital force in greater degree to the parts most affected. The right plan consists in being careful as to diet, remembering that mental labor requires that the system shall be nourished by the very best food, digested under the best conditions; and these conditions are that the teacher shall cease to worry, and take a judicious system of exercises every day, to equalize the circulation of the blood. Worrying is always a confession that one is not equal to the work in hand, and should be resisted and overcome as we would fight a deadly enemy. We should learn to be content after we have done the best we can, instead of wearing out our lives in vain attempts to do more than we can, and thus effectually prevent our doing anything. Then we are apt to forget that exercising is as necessary to good health as eating. Wrong conditions in these respects will break down the most vigorous; while if the rules of physical and mental health are observed, those who are naturally feeble can do a great amount of mental labor.

"There lives in the Republic of Salvador at present a venerable gentleman named Miguel Solis, who is 180 years of age. There is no doubt at all about it. He signed a document relating to the building of a convent in 1722, being then 23 years old. When Dr. Hernandez called on him he was at work in his garden. He takes one strong, nourishing meal each day, except on the 1st and 15th of each month, when he eats nothing, but drinks as much water as he can."

The above we have clipped from a daily paper, and though the statement may seem hard to believe, we are, nevertheless, disposed to the opinion that it is truthful. Instances are not unknown of persons living to an equal age, and, taking into account this man's habits of life, we are strongly impressed with the probability of his great age. Thomas Parr lived to be 152 years old, and might have lived many years additional were it not that he was carried to the king's court at London, as a curiosity, and there feasted to his death. This man, Miguel Solis, preserves his life by rare abstinence, as well as good judgment. In the first place he possesses a very strong constitution, as is evidenced by the fact that he can get sufficient nourishment out of one meal a day, and more particularly, that two days in the month he can fast entirely. Then the infrequent eating, and the eating of abundant food, tends to the development of great digestive power, while at the same time the causes of obstruction are avoided. Fasting twice a month still further allows the system to free itself from any obstructions that may exist, and carry on its operations efficiently. And let it be known, the great majority of men die from obstructions in the system, these obstructions often the result of too frequent feeding or too hearty food. Abstinence, and the drinking of an abundance of water, are excellent means of preservation. The editor of this journal at one time suffered severely with dyspepsia, and in the attempt to relieve himself, ate but once a day, a good hearty meal in the morning at breakfast, as this man does, and recovered good health by the operation. Those persons who feel that they must eat three or four times a day, should take a note of these facts. The Roman soldiers, we are told, ate but once a day, on their hardest campaigns, and the healthiest and strongest men to-day, are those who eat infrequently, but have good, wholesome, hearty food when they do eat. We may properly remark also, that lean persons are much longer lived as a rule than fleshy persons, flesh too often being a serious obstruction to vital operations.

The Cold Snap.

Winter seems to be upon us in earnest. Though Thanksgiving-day has not arrived, the thermometer is 10 degrees below freezing point and snow and storm are in the air. At the Mountain-Park we are quite favored, however, above what we hear in different localities, but we are nevertheless called upon to recognize that winter is coming. Are we all prepared for winter? Are the cellars banked up, the weather strips in place, the furnaces in order, the ventilating flues operating, the coal purchased, and the thousand and one things incident to the change from summer to winter attended to? Has the winter clothing been purchased, and what is its character? How about the boots and the shoes? Are they large, giving abundant room not only for the play of the muscles of the foot, but for air surrounding it, in order that it may be kept warm? Confined air is one of the best non-conductors of heat, and large shoes the best means of keeping warm feet. But the feet will hardly be warm, no matter how well clad, if the legs are insufficiently covered. The pantaloons should always be lined in the legs, or if not, the drawers should be double thickness, at least. In these extremities the vital operations which manufacture heat are not carried on so fully as in the trunk of the body, and hence to maintain heat, more clothing should be employed upon them, instead of less. People foolishly imagine that if they cover the trunk of the body, especially the chest and throat, they are well protected. They never dream that extra covering here, while the extremities are insufficiently clad, tends very strongly to the production of colds, coughs, bronchitis, consumption, etc. Let the extremities, arms as well as legs, be thoroughly clad, and the trunk

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of the body will take care of itself. Chest preservers are a fallacy; while they are supposed to preserve from chest diseases they actually tend to produce them. Diseases of the chest result from too much heat and too much blood there, a condition aggravated by chest protectors; while health and strength will follow an equal distribution of blood to the extremities of the body. Keep the hands and feet warm, and chest diseases will not follow. Wraps and comforts about the throat are also a delusion. No man is so likely to have throat ailments as he who is always protecting the throat.

Hot heads are also to be avoided. The stove-pipe hat, without any ventilation, is a grand cause of gray hairs, baldness, etc. Fur caps are equally injurious. The head should be covered only with thoroughly ventilated hats, whereby it shall be kept cool as well as comfortable.

Do you breathe pure air? Read carefully our articles upon ventilation, and follow out their suggestions, and may the winter bring to you health and happiness.

Cold Feet

—a very unpleasant and troublesome affection, due to deficient circulation of blood in them. The causes of this condition are many. An enlarged liver, a debilitated condition of the system, sedentary occupation, insufficient clothing of the feet, and tight-fitting shoes, are all common causes of this difficulty. An enlarged liver causes cold feet by pressing upon the blood vessels and so obstructing the circulation. Cold feet also frequently result from a debilitated condition of the system, whereby the whole circulation is enfeebled, and the blood does not flow through the tissues fast enough to keep the feet warm. Cold feet also often result from an inactive life or a sedentary occupation, because the feet are not used enough to induce a vigorous circulation in them. Sometimes cold feet result from the want of proper clothing of them. Nine-tenths of the people clothe the trunk of the body as if it were more liable to suffer from cold than the extremities. The practice is a bad one. The arms and legs require much more clothing than the body does, because having less blood circulating in them they consequently have less heat. The latter is much more quickly carried off by radiation from the extremities than from the body.

Tight-fitting shoes produce cold feet more frequently than any of the causes heretofore mentioned. By pinching the feet with tight shoes what blood would naturally flow to them is prevented by pressure, and the pressure being kept up for some time, so contracts the blood vessels that they remain reduced in size long after the pressure is taken off. This explains why some people who have abolished the use of tight shoes still have cold feet, and are unable to warm them even by hot flannels, hot bricks, putting them close to the fire, &c. Glove-fitting shoes cause cold feet in several other ways, to wit: by excluding all air from the feet. Confined air is even more serviceable in retaining heat than are woolen socks, and hence large shoes which give room for air prevent the rapid radiation of heat. Again, by clothing the feet closely no space is allowed for air by which the perspiration of the feet can be absorbed and otherwise disposed of, thus making the feet clammy and sweaty, which aggravates the trouble and increases the coldness of them.

This weak circulation in the feet is not always caused by wearing one tight pair of shoes; it does not as a rule occur suddenly, but the causes begin in early life when the mothers of children are so anxious that their darling's shoes shall fit snugly and look nicely, ignoring the fact that a child's feet will grow, and as they grow, the shoes compress them, so that contraction of the blood vessels commences, and by repeating this process, after the child has grown to womanhood or manhood, permanent cold feet is the result.

How to Have Warm Feet

is what every one wishes to know; paying attention to the removal of the causes above enumerated, will enable one to succeed in most cases. In the first place the feet should have an abundance of active, vigorous exercise in order to keep up the circulation, particularly so with persons of sedentary occupations. Bookkeepers should take active exercise in the open air before and after working hours. Feebler persons can warm the feet by rubbing them briskly with the hands; or, if too much of an invalid, have some one to rub them for them. Slapping the soles with paddles is useful in some cases. Another good plan is to slide the feet briskly over woolen carpet, the feet being covered with thin-soled slippers. By this means the moisture is evaporated and heat produced. Bathing the feet makes them tender, if frequently repeated, unless it be a cold shallow bath before retiring, followed by thorough friction. Wearing loose shoes tends to keep the feet warm, by allowing a proper circulation of warm blood in them; by allowing a space of confined air between the shoes and feet, so as to prevent the too rapid radiation of heat, and also by allowing the secretions of the skin to be evaporated by the air around them. This latter process is carried on more thoroughly by wearing stockings made from some porous material, which increases the space for the confined air, and allows the secretions to be disposed of more perfectly. In conjunction with the foregoing local treatment, attention should be paid to the acquirement of good digestion, as well as of good breathing, to abundance of sleep as well as of exercise. By thus harmonizing all the functions of the organism, cold feet will be an experience of the past. L. J. Price, M. D.

Care of the Teeth.

By J. A. Tenney, M. D.

The preservation of the teeth is of the greatest importance to firm, vigorous health, and the majority of people do not seem to consider that a little care of these organs will make all the difference between their decay in youth and lasting as long as any other organs of the body.

Those portions of the teeth which are exposed to the air decay very slowly, it at all. The front teeth are remarkably free from liability to caries, for the reason that the tongue acts like a syringe, forcing the saliva through between them, where cavities are most likely to be formed. Such hints as these should show every one how to preserve the teeth to old age. If they are only kept clean, they will not decay.

The tooth brush alone will not suffice to keep the teeth clean. Its constant use will prevent decay upon the crown and side of the teeth, but the part most liable to the disease is between them, beyond the reach of the brush. Here the food lodges, and unless it is removed, it changes to acid, which corrodes away the enamel of the tooth, and a cavity is formed. The free use of a toothpick immediately after eating will remove any food that may be impacted between the teeth; it is also of great importance that a thread be drawn between teeth that touch each other, at least once a day.

When cavities are formed, they should be carefully excavated at once by a skillful dentist, so as to remove all the decayed bone, and then filled with gold foil. If teeth have been long neglected, so that the cavities are so deep as to endanger the nerve, it requires more or less skill to preserve their vitality. Within a few years great progress has been made in dental knowledge, so that teeth that formerly would have been considered worthless and would have been extracted, are now saved and made to do good service for many years. Ten years ago it was thought that if the nerve of a tooth became exposed, the tooth was past help and must be extracted; but now it is known that it may generally be saved, even after it has ached, if the process of ulceration has not actually commenced.

Exposed nerves are saved by a process called *capping*. Some years ago, dentists noticed that in old people the nerves of their teeth near the crown recede, and the cavities where the nerve once existed were filled with a new formation of bone. The discovery was made thereupon that it was the pressure that chewing made upon the nerve after the tooth was worn down that caused it to retreat farther toward the root of the tooth, and bone was formed in its place. Then the question arose, "Why may not the nerve be made to recede anywhere?" This led to experiments, which resulted in the most complete success in this direction. It was found, that if a small piece of bristol board is saturated with creosote or some other disinfectant, and placed over the nerve, the cavity can be filled successfully. Many teeth filled in this way will probably last the rest of the possessor's lifetime.

It is a mistake to fill teeth with metal, if a cavity reaches to the vicinity of the nerve, especially in cold weather. Metallic filling is one of the best conductors of heat and cold, and if it lies in the vicinity of a nerve, it will cause it to ache and ulcerate. The best filling for winter in such cases is caoutchouc, or oxi-chloride of zinc. These substances are non-conductors of heat and cold, and they protect the nerve while it recedes from the vicinity of the cavity; which will take place in from one to two years. With care, almost any tooth may be saved; and while false teeth are much better than no teeth at all, they are so vastly inferior to natural teeth that they are to be avoided if possible.

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Questions Answered.

By Robt. Walter, M. D.

Question. You frequently speak of improving the general health as a means of removing local difficulties; will this plan be effectual in preventing the falling out of the hair, causing baldness? My general health is excellent, but I am losing hair; what would you advise?

Answer. If the loss of the hair is due to increasing heat in the head as the result of congestion of the brain, which usually depends upon exhausted nervous conditions, restoration of the general health is, in general terms, necessary as a means of preventing the loss. On the other hand, if the falling out of the hair is due to the wearing of hot and unventilated hats, it can only be remedied by removing the causes. The hats generally worn keep the head really warmer than the clothing does the other parts of the body. Confined air is one of the best non-conductors, and the hat which fits reasonably close, keeps a volume of confined air, preventing the radiation of heat from the scalp, so that, in general terms, the scalp of most people is bathed in a temperature of 95 degrees, or thereabout, and when perspiration is induced the scalp is steamed and soaked so as to compel great debility thereof.

A hat, to be healthful, should not only have openings in the top, and perhaps in the sides, but also around the head on the sides, so that air shall pass between the side of the head and that of the hat and out at the top, thus keeping a complete circulation. In the meantime if the scalp has been depleted by heat, thorough friction thereof with the fingers frequently wet in cold water, will prove very serviceable indeed, in many cases even to the production of a new crop of hair.

Question 1st. Do you consider such articles as crout, pickels and vinegar healthful food? *Question 2nd.* Is it a good plan to use soap in bathing?

Answer 1st. Pickles and vinegar are decidedly unwholesome. The latter is always a product of decay; in other words, the result of rotting vegetables, while the former is rendered unwholesome by their method of preservation. Pickles are too often made green by the use of poison, verdigris being the approved method. Manufacturers and dealers in these articles, buy the vegetables from the gardener, place them in vinegar with pieces of copper until the verdigris shall make them green. Poison is not wholesome food.

Answer 2nd. There is no real objection to the use of soap in bathing, and there is no use for it unless where the person bathes occasionally and employs it for the purpose of cleansing the skin. The use of soap is desirable for cleansing, but for no other purpose.

Question. What is the cause of diphtheria, and how treat it for children and adults?

Question 2nd. What is the cause and treatment of scarlet fever?

Question 3rd. What is the cause and treatment of typhoid fever?

Answer. All fevers are caused by poisons either introduced into or ingenerated in the blood. To answer these questions fully, would require a small volume. The treatment of diphtheria will be given next month.

Question. Do you know anything of the compound oxygen treatment for diseases of the lungs? H. F.

Answer. Compound oxygen is a fallacy. The name is calculated to mislead the patient. The supposition is that oxygen is the chief ingredient, which I venture to say is not true. Medicine venders are quite apt to adopt a taking title, whether it expresses the true idea or not. Compound oxygen is a plan of stimulating the lungs to extreme activity, and thereby temporarily, apparently, improving the patient's conditions. I say temporarily for I venture to say that no case was ever cured by the plan. To be sure the system is more philosophic for many cases than to drug the stomach in the attrmpt to cure lung disease, but we object to all processes of stimulation as being destructive to the vital powers of the patient; like other medicine, compound oxygen loses its effect by repetition.

Question. As the facilities for taking a hot bath are in but few families, how would the hot steam bath answer as a substitute?

Answer. The steam bath is quite serviceable in many cases, quite as much so as the hot full bath. The plan frequently is to seat the patient on a stool and put around him blankets, pinned closely around the neck, enveloping him completely, and burn alcohol under him, beneath the blankets. The better plan is to set the stool in a tub of hot water, seat the patient on it, put a blanket around the neck, covering both the patient and the tub, and then put into it hot bricks, thereby producing an abundance of moist steam. Such a bath may be continued ten to fifteen minutes or longer, until the patient perspires. Then follow by the wet gown bath, as explained in a preceding number. This treatment is excellent for colds or any other diseases in which sweating is advisable.

Question. My patient continued to sweat quite freely after this treatment. The disease for which we treated him being intermittent fever, was it desirable to stop the sweating?

Answer. Not necessarily. The sweating process was nature's plan, undoubtedly, of relieving the system of the malaria. We advise our correspondent to use the wet gown bath, in preference to the shower bath. Shower baths are seldom admissable in any case.

Question 1st. Would Taylor's Movement-Cure benefit a person with weak heart, weak stomach and weak back?

Answer. The work on movement-cure by George H. Taylor, sold by us at $1.50, contains minute and specific directions for invigorating one's self by the employment of muscular movements. Any person who carefully studies this book and becomes competent to prescribe for himself, will be benefited by it, no matter what the disease. The movement-cure is one of the most important agencies in the hands of the physician, for building up weak hearts, weak stomachs, or weak backs. Persons of sedentary habits should by all means employ the movements, as an important plan for improving circulation and consequent nutrition. It would be quite desirable, however, in many cases, in connection with the work, to have a prescription from some one competent to prescribe movements.

Question. What would you advise for biliousness where the diet is as well regulated as circumstances will permit?

Answer. That last clause is exceedingly indefinite. The diet may be the worst possible that can be used, but we will presume that it is moderately wholesome. In such case we must look to the habits of the individual in other respects for the cause of biliousness. Is it close confinement, sedentary occupation, severe mental labor, bad water, or unventilated rooms? If the person will avoid all causes of biliousness, he will not be bilious. I cannot tell what to advise to the questioner, because she does not give me any idea as to the probable cause of her difficulty. I presume that close confinement, hard study, teaching is the cause, and the disease is to be removed by changing the habits. Sometimes such diet as milk, butter, sugar, etc., is used, the person not knowing that these substances are causes of biliousness.

Question. What would you do to relieve ear-ache.

Answer. I should strive to discover the cause of the ear-ache, and this, in general terms, may be said to be a derangement, and usually a depression, of the circulation, as in catching cold, getting chilled, exposure to extreme temperature, etc. In such case, the body should be thoroughly warmed by being immersed in the hot bath continued for five to ten minutes; then let the patient retire to bed, be warmly covered, and apply to the ear cloths wrung out of hot water with a hot brick added, whereby heat and moisture shall be maintained upon the aching part. If this is properly attended to, the aching ear will very shortly cease to give trouble.

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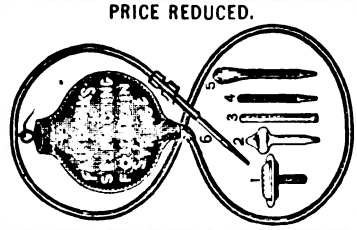

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VOL. II. READING, PA., JANUARY, 1880. No. 9.

Food.—What and How we Shall Eat.

BY ROBERT WALTER, M. D.

If possible, the most important of all subjects connected with healthful living. From food, water and air, our bodies are constructed, and their character corresponds largely to the quality of the materials used. With pure air, good food and pure water, we may have health, but without them this is impossible. To be sure, these are not the only necessaries to health and happiness, but they are so important that their loss accounts very largely for the ill-health that is so prevalent. The air is foul, the water contaminated, and the food adulterated, or, what is quite as bad, of an unsuitable character. The subjects of air and water, however, are discussed in this journal not only, but have attracted careful attention from sanitarians and physiologists, and the truth with regard to them has been quite clearly set forth and to some extent heeded. But on the subject of food there has been less said that is valuable, and little taught that is reliable. Men's ideas have become so warped by their appetites that scarcely any two persons agree as to what constitutes healthful food. The physicians themselves are continually at variance upon the subject, and even if they should agree as to the proper character of food in general, there is an unlimited variety of practice. That bad food is at the bottom of many human ailments, they admit; but what constitutes bad food they are not agreed upon. The writer has given the most careful attention to this subject for over twenty years, and proposes to offer to his readers, some new ideas, which he believes to be true; and as he does not ask them to accept his *ipse dixit*, he proffers the reasons for the faith that is within him.

We are of opinion that much of the error that prevails on this subject, is caused by a failure to start right. The correct dietetic principles are not perceived, and hence correct practice cannot be expected. In the first place, the physiologists fail to give us a correct definition of food, even if they undertake to make any definition at all; so that, for want of correctness in the basis of their teachings, they necessarily fail of success in their practice.

WHAT IS FOOD?

The dictionaries will not answer the question. Webster says, "whatever is or may be eaten for nourishment," is food; a definition which does no credit to his erudition on this subject. Under it the use of arsenic, iron, and other mineral poisons, is permitted even to the destruction of the user. We propose a definition which will stand the test of criticism and answer the demands of reason. It is this: food is that substance which is or may be used by an organism for the purpose of building up its solid structures. This definition is broad and complete enough to include everything that can be used under the name of food, either by plants or animals, and yet it will exclude many substances that are usually included in its category. Man was made upright, but he has sought out many inventions. He has strayed far from righteousness in the matter of diet, at well as in other respects, and numerous substances employed by him under the name of food and drink, will not answer the requirements of any proper definition. But, unfortunately, the demands of a depraved appetite are often stronger than reason, more exacting than nature, and as enduring as life. Appetite rules, while reason obeys, and disease and death follow as legitimate offspring.

To understand this subject more fully, let us consider the three grades of existence upon the earth, and their relations to each other.

First, inorganic or unorganized matter; that which has no organs, performs no functions, possesses no life. What Spencer denominates the "indefinite, incoherent homogeneity;" that which does not grow, develop or move, in other words dead matter; including earth, minerals animal and vegetable excretions. chemical elements, chemical compounds, etc.

Second, the organic vegetable world, representing matter in a higher state of existence than the foregoing, possessing organs and performing functions; that which lives, grows, develops and dies, but which does not move.

Third, the animal world, representing a still higher order of existence, possessing organs and performing functions of a more complicated character; that which lives, grows, develops and dies, but in addition has the power to move from place to place, to act upon the external world instead of being acted upon; the power to live above the earth instead of being rooted in it, representing the "definite, coherent heterogeneity" of the scientists.

Man is a still higher order of existence than the mere animal, but is, nevertheless, so truly an animal in physical organization, that he is subject to the same laws of organization as other animals are. For our present purposes, therefore, we consider him in the category of animal existences, and shall treat only of his physical wants.

The inorganic world, therefore. is the lowest, while the animal world is the highest order of physical existence, while the vegetable is the connecting link between the two. Earth and air are the first and basis of all. The elements of all organization, whether vegetable or animal, are found within them. But the mode of appropriation by animals is very different from that of vegetables. In other words, though out of earth and air come the elements for each, these elements are, nevertheless, not food for both. Vegetables live upon the soil, drawing from it the elements for their existence; clay, lime, potash, animal excretions and vegetable decay, represent the richest and best food for these, while at the same time they are poison to animals. To eat the lime and the clay, the potash and the ammonia, the animal and vegetable excretions, would be to destroy animal life, while to eat the vegetables that live upon these is to grow well and strong. In the order of nature, animals and man appropriate the fruits of the earth, while the plant that produces the fruit feeds directly on the soil. Man thrives only upon *organized* matter; without it he must die. The vegetable, on the other hand, can live only upon the opposite, *unorganized* matter. Decaying vegetable and animal matters, in connection with the soil, are used by the plant as the best of food, while these same substances are to animals, poison, whether inhaled or eaten. Animals, on the other hand, use the plant, and give off to the soil certain excretions whereby it is enriched, and made capable of producing other plants; so that we find animals and vegetables existing as counterparts in nature, the latter absolutely necessary to the existence of the former. If man could eat the dirt, that is, unorganized matter, and get out of it sustenance, there would be no need of his tilling the soil. His body is made up of earth and air and water, it is true; made up of the very same elements as is the vegetable kingdom; but while vegetables use only unorganized *elements* for food, animals can properly use only organized *compounds* for the same purpose. The original decree, "Thou shalt earn thy bread in the sweat of thy brow," stands forth in Omnipotent array against all the plans of inventive genius to feed us from the chemist's bottle. Bread, and not alcohol, is the staff of life, though each represents the same elements. Fruit, and not manure, is food for man, though the elements in each are the same. It is true, there is poison in everything, but the poison is only obtained by analysis, either natural or artificial. Decay is nature's method of resolving compounds

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back to original elements, and chemistry is the plan of man; but by either means food is turned into poison. Upon this basis every system of dietetics must be established. If men would grow healthy, they must eat healthful food and not poison. They must eschew minerals and other inorganic substances, and be content to receive food from the hand of nature as supplied through the living world. We can eat animals, or we can eat vegetables and live upon them, but night-soil, barnyard filth, earth-soil, mineral elements or compounds, chemical compositions, we cannot eat without violating the laws of dietetics. Nature's is the only laboratory that can make food for us—the chemist's arts in this respect are worse than valueless.

What then, becomes of the numerous substances in chemical combinations, that are offered to us by expert manufacturers, or unwise chemists? How shall we feed our children with iron in the hope of getting to them iron constitutions? Phosphoric acid in the hope of getting brains? Why pickle them with salt in the expectation that they will thereby be preserved? Why force upon unoffending stomachs phosphates, soda, lime, etc., in various combinations on the plea that they are food? Where is the justification for the salts and the sodas, for the cream tartar and yeast, for the wine and the vinegar? What about the wheat compounds that have passed through varied chemical changes, and are sold for a dollar a bottle? Are any of these substances fit for use? We believe that a reference to the laws of nature will prove that the men who are urging them upon the people, are quacks, thoroughly unacquainted with the first principles of dietetics.

Dietetics must be established upon fundamentally correct principles, and those principles must be adhered to in practice, if good results would be obtained. When men say that medicine is food, they talk nonsense. When they compress a bushel of wheat into a quart bottle and advertise it as food, they prove their wantonness or their ignorance. Food is that which can be used to the building up of the vital structures, and the laws of God are opposed to the use of anything but organized matter for this purpose. We cannot live upon the elements of the laboratory, furnished to us by the chemist's hands, any more than we can thrive upon arsenic or alcohol, night-soil or barnyard manure.

Scrofula.—No. 21.

By J. A. Tenney, M. D.

Consumption. In our last article we considered the method of ascertaining the condition of the lungs by what is called auscultation, or listening with the ear to the sounds made in the cavity of the chest. This article will investigate percussion as a means of exploration. This may be performed by placing a piece of gutta percha, ivory, or wood over different portions of the lungs, and striking the intervening object with the ends of the fingers. But it is more convenient to use one or more fingers of the left hand as a medium for percussion, and it answers every purpose.

The usefulness of this method of examination depends upon the difference in sound produced by percussing a solid substance and an organ which contains air. Every carpenter knows the difference in sound produced by striking over or between the studding on a plastered wall. Any one can also illustrate the difference between the sound created by forcibly stamping on the ground where the soil is deep, and that made where there is underlying rock. So if percussion is made over lungs that are filled with air, there is a resonance that is quite distinct from what is heard when the lungs are solidified; but the healthy sound is by no means as clear as that heard over a cavity containing air alone, as the abdominal cavity when empty of food.

Different degrees of percussion also elicit different sounds. If the force used is slight, a flat sound will be heard, which arises from the solid walls of the chest; while, if the percussion is more vigorous, it will excite a resonance of the deeper structures. Thus light percussion over the lower part of the right lung, where a thin layer of lung tissue covers the liver, will give the sonorous sound of the lung, while forcible percussion will give the dull sound of the liver. A similar effect is produced over the heart.

The walls of the chest modify the sound produced by percussion. It is better that the patient should be in the erect position, either sitting or standing. If the front of the chest is to be examined, the patient should hold his head erect, with the shoulders thrown back, so as to make the walls of the chest as tense as possible. If the back is to be explored, the patient should lean forward and cross his arms upon his chest during percussion. Both sides of the chest should be examined during both inspiration and expiration, to ascertain whether they sound alike; for, if there is the same sound throughout both lungs, it may be inferred, with a few exceptions, that the organs are in their normal condition. Care should be taken that the finger or fingers receiving and giving the percussion should be held in the same direction, and that they sustain the same relation to the ear that is listening.

In health it will be found that in the upper part of both lungs, the sounds are not materially different. But as we descend, they are modified by the liver on the right side, and the heart, stomach and spleen on the left. Over these organs the sound becomes shorter and flatter, but not abruptly; because the convexity of the diaphragm causes the abnormal viscera to project into the cavity of the chest. On the right side the resonance becomes sensibly duller below the fourth rib in front, and the sixth rib in the side; and increases in dullness to the sixth rib in front and the eighth on the side, when the hepatic sound takes its place. On the left side, the diminution of sound commences just below the third rib, and the dull heart sound is greatest between the fourth and fifth ribs. Below these, the pulmonary resonance is clearer, until it is superseded by the sound produced by the stomach and spleen.

On the back, the sound is much modified by the numerous layers of muscle in this region. It is quite dull upon the shoulder blades and between their upper extremities, but grows clearer as the percussion is carried downward, until the heart, liver and stomach are reached, as in the anterior part of the chest. The lateral portions of the chest are quite clear, owing to the absence of muscle.

Diseased conditions cause either a duller sound than the natural one, or a clearer resonance. If a part of each lung, or of either one of them, becomes solidified from any cause, the natural resonance will become diminished in the obstructed part, or entirely superseded by a sound similar to that heard over the heart or liver. Then if a portion of the lungs is obstructed, the remainder must perform extra duty; hence their air-cells will be enlarged and their resonance will consequently be morbidly increased.

It should be borne in mind, that although percussion is sometimes sufficient in itself to determine the nature of a complaint, it is generally only one means to this end, and cannot always be relied upon, without the aid of other processes of exploration; being almost always inferior to auscultation. Each of these methods will be referred to in discussing the different forms of consumption in succeeding articles.

Diphtheria,

By L. Jones Price, M. D.

Is chiefly a disease of childhood, and is characterized by an inflammation of the mucous membrane of the throat and nose, and by the formation of a false membrane on the part so inflamed. It generally occurs in epidemic form, although one or more cases may occur by themselves, without becoming dangerously contagious.

Diphtheria may take place at any time of the year, but is more fatal in the summer and fall months than in the spring or winter. When it does not terminate fatally, it is often followed by paralysis of some parts or organs of the body; or by extreme prostration, so that complete recovery is retarded for months and sometimes for years, unless proper hygienic treatment be employed.

Pathology and Etiology.

Diphtheria is a germ disease and is ordinarily highly contagious and infectious. These germs are microscopic animalculæ, which multiply

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with bewildering rapidity when the conditions for their growth are established. The breathing of an atmosphere loaded with emanations from decomposed animal and vegetable matters, whether these be the result of defective sewerage, improperly ventilated rooms, bad drainage, the collection of refuse matter around dwelling houses, as parings, slops, barnyard and privy emanations, etc., not only produce the conditions of blood favorable to the reception and growth of these animalculæ, but generate the animalculæ themselves with wonderful certainty. Sewer gas is particularly efficient in producing the conditions favorable to an outbreak of diphtheria, as was proved by the experience of Pittsburgh in the summer of '77. During this season the heavy rains fell repeatedly, and rushed into the sewers, which emptied their contents into the river at a point above the lowest level of the sewers. The outlet of the sewers being filled with water prevented the gases from escaping in that direction, and hence as the rains poured into them, the gas was forced back through the traps and into the dwellings of the inhabitants. A violent epidemic ensued, and children died by the scores.

In the rural districts or small towns, the cause is to be credited, undoubtedly, to badly ventilated houses; the drinking of impure water, caused by the washing of barnyards and privies into wells ; the accumulation of refuse materials around the premises, etc.; and as most of the inhabitants are subject to the same unhealthful conditions, the disease rapidly spreads by contagion or infection, until whole neighborhoods are prostrated. Diphtheritic germs are exceedingly tenacious of life, and a room or garment which contains them may be a source of infection for months after the first reception. Improperly fed, or insufficiently clothed children, who perhaps huddle under the bed-clothes at night, drink impure water by day, eat swill-milk or other unwholesome food, are extremely liable to these attacks.

The Symptoms

are restlessness, headache, sometimes diarrhœa, dryness of the throat, stiffness of the neck, and general pain while attempting to swallow, followed by swollen tonsils which look dark and tender. The glands around the lower jaw are inflamed and sore. After the foregoing symptoms are developed, the characteristic false membrane shows itself, with soreness of the palate and other parts of the throat and nose. The membrane may be known by its appearing very much like wet parchment paper, or dirty wash leather. These spots soon enlarge and coalesce, until in some cases, the whole mucous membrane of the throat is covered. The browner or blacker the color of this membrane, the more fetid is the odor, indicating a deeper grade of impurity, and consequently greater danger. There is no desire for food or drink, as a rule. The pulse is quick and frequent, running from 110 to 150 or 160 per minute. The urine is highly colored and scanty, bowels either costive or loose.

Bleeding from the nose is a frequent symptom in the worst cases. Sometimes the diphtheritic poison is so complete that exhaustion and death set in before the peculiar symptoms of the disease are manifested, the child complaining in the morning of giddiness, headache, nausea and extreme weakness, and the next morning dies, without any special throat symptoms. The duration of an ordinary case of diphtheria is from three to fourteen days, but convalescence is retarded much beyond that period in some cases.

The Treatment

of diphtheria resolves itself into two distinct objects: first, to relieve the congestion and even inflammation of the internal organs, by inducing the blood to flow to the surface, thereby assisting the skin and kidneys in eliminating the poison; second, to supply pure air to the patient, as the proper means of preventing the rapid proliferation of these germs. All decayed animal or vegetable matters should be removed from the premises. Drains should be thoroughly cleansed. Cellars should be examined, and any decaying matters found in them should be removed. Slacked lime may be sprinkled abundantly in the cellars, and round the yards and drains, etc. To burn sulphur or tar in the room in which the patient is, aids in destroying the germs and purifying the air. If the house has waste-pipes, it would be well to stop them up entirely, until the patient is relieved, and thorough investigation into their condition had.

While attending to these general hygienic considerations, the patient must not be neglected, but should be treated promptly when the first indications of restlessness and fever show themselves, especially if connected with stiffness in the neck and soreness about the throat. First, give the patient a hot bath at 105 degrees for ten minutes, or until he shows some inclination to perspire. If there should be nausea while in the bath, give him cool water to sip. Be sure to keep a cold cloth on his head and also on the throat. Immediately following the hot bath, if the patient is vigorous, put him in a wet sheet pack, being well wrapped up in blankets, and continue for 40 minutes. While in the pack, ice-cold compresses should be applied to the throat, and changed every few minutes, so as to keep the inflamed parts cool. At the end of 40 minutes or thereabout, (the time may be less or more according as the patient feels,) remove the wrappings and wash off in tepid full bath or warm sponge, rub dry and put to bed. Then, having placed oilcloth under the head and neck, keep the throat cool with compresses, even if pounded ice be placed between folds of linen cloth and applied. Lumps of ice may be held in the mouth also, and the water swallowed. At the same time a wet abdominal bandage, made of linen towels wrung out of cool water, and covered with dry cotton sheet, may be wrapped around the body over stomach and liver.

Of course the thoroughness of these baths will depend upon the conditions. If the throat symptoms are not severe, the ice compresses may not be needed, but cold wet compresses be used instead. If the fever is not high, the wet sheet pack may be dispensed with, though in nearly all cases the abdominal bandages will be serviceable. If there is great stiffness about the jaws, it is possible that hot fomentations for five or ten minutes may be serviceable, but they should always be followed by the cold compresses. If the temperature of the throat is not allowed to rise, the germs will not be produced with such rapidity, the false membrane will not form, and so, serious causes of prostration and death be prevented.

Give the patient abundance of pure water to drink, pure air to breathe, but allow no food or stimulants of any kind to be used until there is a decided abatement of the fever. Vacate the bowels daily, by free injections of tepid water; if necessary, fill them full so as to wash them out. On the second day the patient may have another hot bath followed by the ice pack to the throat, and the cool abdominal compresses as before, provided the fever continues. This treatment may be repeated until a decided abatement in the symptoms has taken place. The formation of the membrane is the result of an inflammation in the throat, but this membrane becomes itself the food for these germs and a rich soil in which they are produced by the millions, and from which they are inhaled into the circulation. By keeping the throat cold and so preventing the formation of the membrane, the production of the germs is prevented, and the patient recovers by virtue of the inherent vitality of the organism.

After convalescence has commenced, the patient may eat some light farinaceous food, such as oatmeal or Graham gruel, but no solid animal food should be given until recovery is quite well advanced.

The local treatment of the throat is highly important, though little understood by physicians generally. The application of tincture of iodine, caustics, and the removal of false membrane by force, are usually harmful and even dangerous. What is necessary is a mild disinfectant which will not increase the already existing inflammation, while it nevertheless tends to destroy the false membrane and to kill the germs. The flour of sulphur is a mild but most efficient substance for this purpose, and may be used with most gratifying results by filling a quill or pipe-stem, or cylinder of paper full of it and blowing it on to the parts affected. Keep the atmosphere of the room charged with sulphur fumes or tar, and allow no person in the room but the nurse or physician. If there are other children in the family, send them away as soon as possible, and do not allow them to return until the patient is not only restored, but the premises thoroughly cleaned and disinfected. Let the reader bear in mind that diphtheria is a filth disease, and will never find the elements of sustenance in a healthy organism. Those who breathe impure air, eat impure food, drink impure water, and so have impure blood, are like magazines ready to explode upon application of the exciting cause; while those who obey the laws of health and keep themselves, therefore, in healthy and vigorous conditions, may snap their fingers at diphtheria as being impotent to injure them. Scrofulous conditions of the system, however, may exist congenitally, and such persons be fit subjects for the most serious attacks.

Can all cases be cured? Undoubtedly many will die in spite of the best treatment that can be given. It is a poor plan to lock the stable after the horse is stolen; a poor plan to be called upon to treat diphtheria, the result of our own heedlessness or carelessness. What we need to do is to remove the causes and so prevent its development, and on these subjects The Laws of Health speak in no uncertain way. Read it carefully if you would *avoid* the diphtheria, as well as be cured of it, if you get it.

What would be the result, if this treatment were administered to a patient which after all had not diphtheria, but some other fever, such as scarlet fever, measles, &c., is a natural question. The answer is: we treat conditions and not names. Any fever showing the symptoms named would need the same treatment, unless we except the blowing in of sulphur. The hot bath, wet sheet pack, wet bandage are always in order for vigorous fever patients, and the cold compresses to the throat entirely proper where the throat symptoms are present. The directions regarding cleanliness, food, &c., are always applicable.

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The Laws of Health.

Monthly, 50 Cents a Year.

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☞ All communications should be addressed to Wernersville, near Reading, Pa., the residence of the editor.

READING, PA., JAN., 1880.

OUR PLATFORM.

1. The vital power in the organism is the only healing power.
2. The rapidity and the certainty of cure depend as much upon the degree of vitality—the amount and quality of the vital force—as upon the distribution of it.
3. The symptoms may be changed and the disease often cured by reducing the quality or degree of this force, on the one hand, or by increasing it on the other.
4. Bleeding, purging, stimulating, and all drug processes, as also the Water and Diet cures, as usually employed, cure on the former plan,—the plan of depleting the system.
5. The Nutritive-cure on the other hand, cures only by building up, invigorating, and purifying the organism.
6. The true way to cure invalids therefore, is to distribute the vital force to its appropriate channels by means which shall increase, but never reduce the vital vigor.
7. This is done by the use of normal health agencies, which while equalizing the circulation, in which all nutrition takes place increases the production or manufacture of vitality, and reduces expenditure.
8. The breathing, digestive and circulatory systems comprise the organs of manufacture; while the brain, and nervous systems comprise the organs of expenditure.
9. The organs of manufacture are largely muscular, and depend for the performance of their functions on muscular contraction and relaxation; while
10. The organs of expenditure are mostly nervous, and depletion corresponds to the excitability and activity of the nervous systems.
11. All processes are to be employed to invigorate the muscular systems special and general, while at the same time they tranquilize the brain and nervous systems thus producing quiet, content and rest.
12. The Nutritive-cure embraces these principles, and by representing a scientific combination of exercising breathing, bathing, eating, sleeping, resting, clothing &c., is the only scientific system of medication in existence.

A Merry Christmas and a Happy New-Year.

The editors of this journal send greeting to all its readers, wishing for them the consummation of a successful year in the past, and bright hopes and joyous expectations for the year to come. The old year will, before this reaches its readers, have passed away; and the new year, young, bright and joyful, as youth is apt to be, will have taken its place. Youth always anticipates, while age reflects, so that both anticipation and reflection are urged upon us at this season.

As we remember the joys, as well as the sorrows of the year that has passed, we may console ourselves that our experiences have not been without benefit. No man can endure suffering on the one hand, or experience pleasure on the other, without learning something; and the end and aim of life is to educate us to truer and nobler capacities and conditions; and as the new year comes to us, we resolve once more to exercise ourselves more truly, to cultivate our powers more thoroughly, to give our aid and influence in favor of the right and against the wrong; but as the days come and go, and the years are counted one by one, we still find there is much to learn, there are profound depths which we have never penetrated, and exalted heights which we have never scaled, so that we are incited to renewed ambitions to become broader, clearer and more profound in our conceptions of the true and right. Life is a stage of action, a condition of probation, a school of experience, upon which we enter weak, feeble, and ignorant, but which we should leave, full-grown, developed, ripe, fit for the eternal harvest.

What are your plans for the coming year? In what department of knowledge are you deficient, and what do you wish most to pursue? The paths of life are numerous, and the ins and outs of knowledge varying, but there is one sort of knowledge which is always valuable, one book which is before us all. Self-knowledge is the most important of knowledge. "He that ruleth himself is greater than he that taketh a city," and to be able to rule one's self requires that he understand himself. Ignorance is not bliss, nor is it folly to be wise. All experience, all sound precept, heaven and earth, agree that wisdom is better than rubies, and self-knowledge among the most important of possessions. "All that a man hath will he give for his life;" knowledge of the laws of life, and conditions upon which it is maintained cannot but be valuable. Much that a man hath might he be willing to give for an increase of the powers of life—for sounder health, more vigorous function of body or brain, larger capacities and nobler abilities.

THE LAWS OF HEALTH discusses these matters fully. It will come to its readers from month to month laden with truth on the subject of life and health, boiled down, shaken together and running over. Readers, shall we have your company for 1880? Old friends should not part, nor new ones be withheld.

Care of the Insane.

A meeting of citizens was called at the Cooper Union in New York city, December 18th, to consider the matter of having supervisors appointed by the State to look after the welfare of the insane, instead of leaving them, as they are now, under the exclusive control of the managers of asylums.

It appears that of the 50,000 insane people confined in asylums in the United States, 9,000, or nearly one-fifth, are in the state of New York. They are huddled together in great numbers, there being 600 in the asylum at Utica, 700 in the Kings County Asylum, 1,000 on Ward's Island, 1,200 on Blackwell's Island, and 1,300 at Willard. All who have lived in a hospital, or establishment of any kind for invalids, will see at once how injurious it must be to an insane person who is curable to be placed where the mental atmosphere is reeking with insanity, as it must be where such an influence is multiplied by placing great numbers of these unfortunates together. Many of the insane are more sensitive to adverse mental influences than those who are well, and the majority of healthy people prefer other society to that of the inmates of such asylums.

Then no work is usually furnished to the insane, and they naturally fall to thinking upon their own unfortunate condition. This is, in itself, sufficient to craze a well person. Confinement in our prisons, with plenty of work to do, is bad enough for the health, but confinement without employment is still worse. And when is added to these adverse conditions bad treatment from irresponsible attendants, who are or may be secure from exposure and punishment, on account of the unreliable character of the witnesses, it is natural that those who have friends in such establishments should desire outside supervision.

The number of cures that take place in these asylums are about what might be expected under the circumstance. In the King's County Asylum, the ratio of cure is only 11 per cent., while in the hospital, which admits patients in every stage of disease, curable and otherwise, the ratio of cure is 70 per cent. We suggest that the society for the prevention of cruelty to animals, or some other body of men, shall take the matter in hand, and see if the difficulty cannot be remedied.

Long Life.

Invalids usually regard sickness as an unmitigated evil; but if it is turned to proper account, it may often prove a great blessing. It teaches people the limit of their vital power, and so enables them to live within their strength, when otherwise they might recklessly squander it in some great outburst of energy, and so make themselves hopelessly bankrupt in vitality. It teaches them not to undertake too much. The facts go to show that those who have lived to be old are not usually those who have had the most apparent vital power, but, on the contrary, they have been the feeble, who have been obliged to take care of their health.

Richard Henry Dana was an invalid until he was fifty years of age, and yet he died an old man, and accomplished more than most of his contemporaries. Peter Cooper was a weakly child, and has remained more or less feeble ever since; but few men in this country have been more useful in their time, and he is now in his 89th year. The famed Louis Cornaro was given up to die by his physicians at twenty-five, his disease being caused by reckless habits; but by strict temperance in all things he attained to nearly one hundred years.

There are spenthrifts in vitality just as there are in monetary affairs. They presume too much upon an inherited vigorous constitution, and before they are aware of it, they are physically bankrupt; and as failures in business teach those who are teachable the laws of trade,

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and so lay the foundation of future success, so a partial breaking down of one's constitution may be a great blessing, if it prevents a worse calamity of the same kind in the future. But if people could learn how to live healthfully without going through the experiences of invalidism, it would be far better, for sickness always exhausts the vital force; yet the majority seem to require a practical knowledge of disease before they are willing to live healthfully.

Made Dishes.

There is no mystery greater than that which surrounds modern cookery, unless it be that which is thrown about a physician's prescription. In order to make the secrecy more profound, the ordinary hotel bill of fare—which, by the way, is now called the *menu*—is covered with outlandish names, borrowed from the French language. The French have at least this advantage over us in cookery, as well as in the fashions of the day, that they do not ape the manners of other countries.

Thackeray, the great novelist, had a passion for beans and bacon, and such homely dishes. On one occasion he was found alone in a secluded corner of a coffee room, regaling himself upon a dinner of tripe and onions. He explained that he had an invitation to a dinner party, but as he was passing the coffee house, he saw the dish referred to on the bill of fare, and he could not resist the temptation to stop and have his dinner there; sending his regrets to his kind host, saying "he had suddenly met an old friend, and was unable to leave him." We would not recommend to dyspeptics Thackeray's preferences, but there are plenty of old friends that they had better remain with, rather than to seek the acquaintance of such conglomerations as are served up by fashionable cookery.

Spring Again.

In our last issue we called attention to the fact that winter was upon us, but since then we have had spring, and even summer. Winter has hardly set in as yet, and the prophets are at work predicting a mild, open winter. We hope it may be so.

The new building, commenced two months ago, has made notable progress, but is not yet ready for occupancy. Indeed, it has not secured its roof, but we are hoping for the mild winter which shall allow us to continue our operations, and have everything ready for the early summer. When this building is completed, we will have one of the most complete institutions in the country.

Ventilation.

By Robt. Walter, M. D.

I have heretofore discussed the subject of ventilation for buildings already completed, and shall now enter upon an examination of the processes which are urgently needed in the construction of buildings. We shall direct the reader's attention first, to the withdrawal of the impure air. This requires that it shall be heated to a temperature considerably greater than the air surrounding it. Heated air will move upward through any opening, and so find its exit; while air of the same temperature of that which is around it, will remain stationary. This principle is fully illustrated in the carrying of smoke from the fire. The smoke is carried by heated air, and the draft corresponds to the temperature of the air. So true is this, that three-fourths of the heat from furnace or stove is lost through the chimney, so that our processes of warming are extravagantly wasteful. Usually much more heat is lost in this way than is at all necessary, and hence a part of it may be appropriated for the purpose of ventilation.

We have already spoken of the value of the open grate, or fire-place, which is excellent for ventilation, though comparatively valueless for heating. The fire on the hearth heats the air, and carries it through the chimney to the roof, consequently, sucking into it the surrounding air until every few minutes there is a complete change of air in the room. That which was in has been carried up the chimney, and other air has taken its place. What air shall take its place? This is the important question to decide. Shall the cold air through the key-holes, the cracks, and the walls, crowd in on every side, while the warm air is being carried out? When such is the case, of course the room must be cold and uncomfortable. To get the benefits of the open grate, there should be a register at the opposite end of the room, through which pure outside air, which has passed over a moderately heated surface and become warm, should be introduced. With abundance of warm air coming into one side of the room, and the air from the floor carried out through the grate and chimney at the other side of the room, we have a perfectly warmed and a perfectly ventilated dwelling. The plan, however, is expensive. The fire on the hearth means the use of expensive fuel, and the heated air from the register, equally expensive fuel; so that we have a double consumption going on all the time to get comfortable quarters.

Quite as convenient, and at the same time a less expensive method, is to build the chimney, say two feet by two feet six inches, inside; and through the center run a thin, cast-iron smoke-pipe, of about eight inches diameter. This smoke-pipe should be the smoke-flue for the range, furnace, steam-heater, or any other fires that may be used in the building. The heat from these fires, makes the pipe very hot, thus heating the surrounding air in the chimney, producing a powerful draft, equal, probably, to the draft from the open fire place. Any opening in this chimney, into which a register may be placed, will always draw vigorously, so that rooms immediately adjoining the chimney, may always be ventilated.

But rooms distant from the chimney are not so easily provided for. In this case, a tin flue, say three by six inches in size, for a medium-sized bedroom, should connect the chimney with the floor of the room on the opposite side from the heat register. Usually this will work with entire satisfaction, and, inasmuch as one chimney should not be asked to serve for more than a half dozen rooms on each floor of a building, ventilation can be secured by this simple and comparatively inexpensive plan. If the building is a large one, there may be two ventilating stacks; one serving for the kitchen fire and the other for the furnace fire. If placed at opposite ends of the building, or say ten to twenty feet inside the end, the rooms adjoining can be emptied into the respective stacks, and pure air be obtained throughout the building. The ventilating registers should always be placed near the floor, especially if the building is heated by furnace or steam heater, and is snugly built, and the doors and windows are generally kept closed. The reason for this is that the cold air settles to the floor, while the warm air ascends to the ceiling, and inasmuch as it is the cool air that has been longest in the room, and hence become impure, it should be carried out, while the warm air gradually becomes cool and also settles. By this means the cold air being carried from the floor steadily, bringing the warm air down to it, the feet of the inmates are kept warm; while, on the other hand, if the ventilating opening be at the ceiling, the warm, and even the pure air, is carried out, leaving the cold air upon the floors and around the feet of the inmates, inducing that condition of cold feet and hot head which is decidedly opposed to good health. With this plan of ventilation, as with the open fire-place, provision must be made for the introduction of warm air into the room. To draw the impure air out and allow the cold air to enter through cracks and keyholes, as we have before said, is to destroy all proper plans of heating. Pure outside air, that has been warmed by passing over moderately heated surfaces, should be introduced as rapidly as the cold impure air is being carried out. The ventilating register may be one size smaller than the heat register, and the latter may be of as many inches as the room is feet. Say for a room 8 by 10 feet use 8 by 10 heat register and, 4½ by 6 to 6 by 8 cold air register. If the ventilator works vigorously keep windows, doors, &c., closed, and perfect ventilation will be had.

In building ventilating stacks where the air is introduced directly from each story, the stack should be made much

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larger, as it goes up to meet the requirements of each additional story; say 16 by 16 inches, first floor; 20 by 20 inches, second floor; 24 by 24 inches, third floor; 28 by 28 inches, fourth floor, &c. Some architects carry the foul air from the floors of the rooms through tin flues down to the basement, and empty all into the stack at one point, where it is carried up again to the roof and so discharged. The plan I think has no advantages over that just explained, and being more expensive need not be adopted in order to have well-ventilated dwellings.

Water-closets should always be ventilated from below the seats, so that all foul gases shall be carried off before they contaminate the air of the room. But it is always of doubtful propriety to ventilate them directly into the general ventilating stack. There might possibly, on a given occasion, be a back action, by which these gases would be driven into the room, to poison the inmates, especially in warm weather when the fires are low or are not burning at all. The better way is to connect them with a separate galvanized iron or zinc flue which shall run through by the side of the smoke-pipe to the roof, thus getting the benefit of heat in the ventilating stack, while the water-closet gases are nevertheless not mingled with contents of the ventilators. By these means water-closets may connect with bedrooms and even living rooms with perfect impunity, but with great benefit to feeble women and children and invalids.

These are the means employed at our Mountain Park for securing both conveniences, comforts, purity and health at one and the same time. We will consider also the subject of heating in our next.

The Uses and Abuses of Water.

The sources of our water supply may be considered as *First*, well water; *Second*, river water; *Third*, rain water; *Fourth*, spring water.

The first is the great source of supply to the people in the country; the second, to the people in the cities; while the third and fourth are used incidentally.

The choicest water is the least plentiful, and hence, the least commonly used. Spring water that is soft and free from mineral impurities generally, is the purest water that can be obtained. Springing from the bowels of the earth, organic impurities are not likely to be present, and if the mineral impurities have not been obtained by filtering through the earth, we have the purest and best water for use for any purposes. It may not be absolutely pure, but is probably superior to all others, unless it be distilled water.

Rain water, especially if it is properly filtered, is next in value to soft spring water. In the first place it is entirely soft, and the only impurities which it contains, if kept in clean cisterns, are those which it gathers while falling through the air, or because of its washing roofs of houses from which it is caught. The filter is the proper means of avoiding these impurities. A cistern built with two compartments, separated from each other by a partition, filled with sponge, charcoal, sand, gravel, etc., will preserve water, if well covered, in a state fit for use to an extent that wells and rivers never can. It is required, however, that the filter shall be frequently renewed, because the impurities will soon so accumulate as to become itself a reservoir of filth. The Kedzie water filter, if frequently renewed, is an important additional aid toward purifying soft water, if from any cause it becomes impure. The filter is valueless for water that is simply hard. This can best be improved for use by boiling, which separates the lime and renders water approximately soft. Boiling will also be useful in destroying any vegetable or animal growths in the water, and so often improve its quality.

Between well and river water there is little choice. Both are reservoirs which frequently contain water absolutely unfit for use. Well water is usually hard, and hard water, as we have seen, is not desirable. But its hard quality is not its worst feature. Spring water may also be hard, and to the extent that it is, is its quality injured. Wells suffer from another source of impurity; namely, surface drippings. Both wells and rivers suffer from this to an alarming extent. It is not an uncommon thing for wells to receive water from the surface, after it has well washed barn-yards, filthy outhouses and other uncleanly places. The worst case of typhoid fever that I have treated was the result of drippings of animal excretions into a well of water situated in a small country village, from which all the cows, as well as most of the human inhabitants, received water, and around which at no great distance, several pig-pens were found. It is too often the case, also, that the foul matter of privies is filtered through the earth, and in greater or less degree carried into wells. Grave-yards are also drained in the same manner, so that it is not wonderful that impure water from wells comes to be one great source of ill health among the people, especially of diseases which represent blood poisoning. Typhoids, diptheria, scarlatina, etc., are all aggravated, if not primarily produced, by similar causes.

But if this is true of well water, how much more true is it of river water. Rivers are supplied from the surface much more than wells, as is shown by the fact that the water is seldom as hard. They are supplied from the rains which have washed the surface of the country, including the barn-yards, pig-sties, privies, etc., and have cleansed the cities through the sewers and gutters. Not only is this true, but paper mills, furnaces, tanneries empty limitless quantities of poisonous matters into them, especially in or near the large cities. How can such water be fit for use, and yet how many millions of our people use no other. Epidemics and endemics thrive in our cities quite as much because of the impurity of the water as because of the impurity of the air. To say that people can live hygienically under such influences, is absurd. No wonder that the daily newspapers chronicle the most alarming reports, both as to the quality of the water and as to the prevelance of disease in our cities. To-day we clip from a daily paper the following:

> The people of Detroit are, or ought to be, in great distress. A chemist has been examining the water there, and has made a report upon it which is enough almost to make the temperance men break their pledges. For the scientific gentleman finds in the fluid furnished for general drinking various insects with tremendous and most unhealthy-sounding names. Think of taking down at a gulp specimens of the Nitzschia Curvula, of the Cymatopleura Soles, of the Cymatopleura Elliptica, of the Stausoneis Punctata, of the Pleurosigna Spencerii, and last, but by no means least, of the Rhizosolenia Eriensis! To be sure, most of these little fellows could dance in great numbers on the point of a cambric needle, but for all that there is a suggestion of stomachic complications in the jaw-fracturing names. However, 'tis but a notion. So these animalcules do not become visible to the naked eye, let us drink and be thankful!

What is said of Detroit and its people, might be said of three-fourths of the people in the United States, we believe. They draw their water supplies from similar sources, each contaminated by similar means, and unquestionably, similar results are obtained. At one time we hear that it is New York that is alarmed by its water supply, and then it is Philadelphia, and Wilmington, and Chicago, and no doubt all that is said of this matter is true, and much more. No wonder that the people hesitate about using cold water as a beverage; no wonder that they talk of employing this, that, or the other substance to neutralize the effects of impure water, and no wonder that decoctions of tea, coffee, of beer, whiskey, wine, etc., are employed to an unlimited extent as drinks. Gough's apostrophe to water, was intended for pure water, not for the water that people use. Soft, pure, spring water, cool, sweet and refreshing, unadulterated by any substances whatever; water suitable for cooking, washing, bathing, drinking; water that should be a tempting beverage in its natural state without any admixtures; water in which art plays no part, but in which nature has furnished all that is necessary to health, life and longevity, is the greatest want of the American people. It can be had with labor and patience, but without these the people will content themselves with impurity, and disease and death as the result. We commend our readers to pure water as the divinest of drinks, as nature's own production. How properly to use it is the question now for consideration.

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The Defrauded Soul.

By Elizabeth Oakes Smith.

"There is no crime, alas! so common,—no sin against God so black,—no outrage which beautiful Nature so abhors,—no human wrong which the Angels so deplore, as pre-natal infanticide."—Dr. O'Leary.

It is a Lady richly dight:
Why walketh she in the pale moonlight?
Wide open are her eyes of blue;
She gathers her robe, for through and through
Pierces the cold wind, heavy with mist,
And stirs the grass as a serpent hissed—
Hissed through the brake and through the brier,
And under the dead oak, scorched by fire;
She gathers her robe across her breast,
But may not smother its wild unrest.
Ah! what doth she, a Lady bright,
Out and alone in the cold midnight?

* * * * * * * *

Why doth the baby moan and cry
As the lovely Lady passeth by?
Why doth it clutch at the mother's breast,
Who sleepily lulls it again to rest,
And wonders what the cause may be,
That he stirreth and moaneth dreamily?
The nesting bird its close wing lifts,
And a cold blast over the fledgelings drifts.
The hanging bat on leathery wing
Skirrs on the air—'tis a kindred thing;
The owlets hoot, but the silent stir
Of the old owl's wing is unheard by her,
As she onward moves, unable to break
The spell that the child and the bird awake.
A black cloud moves athwart the sky,
Dimming the moon's pale, downward eye.

And now the Lady in weary plight,
The sleeping Lady so richly dight,
By a span-long grave is bending low;
And a gusty wind is rising slow,
Stirring the grass so damp and sear,
Rocking the mouldy churchyard-bier;
And a span-long Babe, who sobs and cries,
Into her bosom creeps and lies.—
"Suck, little one! O suck your fill!
Though never a drop my veins distill.

"Why dost thou call me—call me low?
Why do I hear thee, when I know
That thou art dead beneath the sod,
And thy dear soul at rest with God?
I hear thee sobbing, under the sod,
And I thought thy soul at home with God."—
Oh! it was a weird, weird sight
To see that Lady, in mournful plight.
Holding the Babe so blue and thin—
A span-long Babe, of bones and skin;
And it looked in her face, and moaned and sobbed:
"O cruel Mother! my Soul is robbed—
Robbed of the Life that mine should be—
Robbed of the Soul God meant for me:
I lie in the grave, and weep and sigh—
Alas that an Unborn Babe should die!"

"Now hold thy peace: how should it be
That I have wronged aught in thee?
Oh! cease to call me through the gloom—
Lie down and rest in thy little tomb."—
—"I may not rest—I may not sleep;
I have no Soul, dear God, to keep;
I have no sin to be forgiven—
I have no sin to bar from Heaven.
I sit me down at Heaven's gate,
And for its opening watch and wait;
I see young children passing through,
And but for thee I might pass too!
An Earth-child now, by wild winds tossed,
Oh! give me back the dear Soul lost!

"Ah! thou wilt go to Heaven's gate,
Where such as I must watch and wait;
And the pure Angels, seeing me,
Will know the sin that blackens thee.
I have no soul—I knew no Life—
Unwilling Mother! faithless Wife!
And all my comfort, all my rest,
Are thus to lie upon thy breast;
And I must call thee, call thee here,
If I perchance may win a tear—
A Mother's love—a Mother's kiss—
In place of Heaven's eternal bliss.
Hark! lay me in my damp, cold bed:
I hear the bird sing overhead,
And I must into darkness creep,
And with the glowworm wake and sleep."

Then wefully, in piteous plight,
Uprose that Lady, fair and bright,
And pressed her lips upon the sod:
"Oh! be Thou merciful, dear God!
We are so slow the right to find—
We are so weak—we are so blind!"—
Then homeward turned her weary feet,
To couch her limbs in snowy sheet.
"O God!" she cried, "the mystery!—
The mystery we little see,
Nor half our Motherhood implies,
Which we so wantonly despise;
The sacredness that round us lies;
The sacredness of all our Life;
The sacredness of Mother—Wife;
The foretaste in a holy love
Of God's sweet tenderness above!
Can fast and prayer, at any cost,
Retrieve the Unborn Soul that's lost?"

Questions Answered.

By Robt. Walter, M. D.

Question. Do you consider swan's-down, which is less expensive and more durable, as healthy for undergarments as flannel? It is said that flannel absorbs the oily matter from the skin, and that it needs boiling to remove it, thus injuring its quality.

Answer. By swan's-down, I presume the questioner means cotton-flannel. We consider cotton-flannel quite as good as woolen flannel, but there are objections to all kinds of flannel for undergarments. No closely woven substance should ever be worn next the skin. An undergarment superior to any other that I am acquainted with, is made of No. 5 knitting cotton, crocheted in a requisite form. The looser and more open the garment, the better. If the spaces between the threads are half an inch in diameter, it is no objection. Such garments do not retain any oily or perspirable matter near the skin. They are light, easily cleansed, and are the warmest that can be worn of the size and weight. A good undershirt of such material is equal in warmth to a moderate overcoat, as we have proved before now. The principle is this: confined air is the best non-conductor. The crocheted work keeps the clothing from the skin, thus leaving a space for the confined air, so that the heat is not radiated from the body. This same undergarment is cool in summer, because it prevents the heat from being transmitted readily to the body. Indeed it is simply a non-conductor, preserving the heat of the body in cold weather, and preventing the transmission to it of the rays of a hot sun in hot weather.

Question. Will you explain how the use of fruit makes the liver active?

Answer. Fruits do not act upon the liver. Any effect which their use may have is negative rather than positive. Some foods which people eat tend to render the liver obstructed and inactive; fruits do not, and hence the use of fruits tends to the activity of the liver, in that they do not obstruct its action. It is the normal state of the liver to act without any stimulant, and we would all have active livers, if we never did anything to make them inactive. Fruit does not make the liver active, but it does not make it inactive.

Question 1st. What is the cause of the ascaris vermicularis or white thread worm or pin worm in apparently healthy children?

Answer. They are the result of indigestion. It is a law of nature that wherever material for sustenance is found, there growth will take place. If the food passes the stomach undigested, it is in condition, in connection with warmth and heat, for the production and sustenance of worms. Restore digestion perfectly and the worms must cease; in the meantime, frequent injections of warm water will relieve the bowels, while thorough kneadings of them with percussions will facilitate their expulsion, as well as improve digestion. A person suffering from this difficulty should have a course of hygienic treatment to restore him to perfect digestion. The diet should be plain and simple and only as much as the person needs, and eaten regularly twice a day with nothing between meals.

Question 2nd. Julia Coleman says that butter, even in its natural state, is the most indigestible of all foods. Is this so?

Campbell says, "Fat properly prepared, is easy of digestion, and being a direct nutrient of the exhausted tissues, supplies the needed element. The nervous should eat as much of it as they can digest."

Radcliffe says, "It is all important that the oleaginous article of diet should be fully supplied, or we starve the nerve tissue. The hydro-carbons are necessary in keeping up the electrical charge of nerve and muscle, which has so much to do in nervous action." J. B. P.

Answer. I do not rgree with either of these authors. Julia Coleman oversteps the mark when she says, butter is the most indigestible of all fats. The truth is that in a true sense all fats are utterly indigestible, and to say that one is more so than another, is nonsense, for none of them are digested at all. The statement of Campbell that fat is easy of digestion, therefore, is incorrect in the sense in which we use the term. On the other hand, if digestion means simply the disposal of material in such form that it can be absorbed into the system, fat is one of the most easy of digestion. Everything depends upon what you consider digestion to be. Fat passes through the stomach without undergoing any change, and therefore is not digested in the stomach, but it is formed into a fatty emulsion further on and is absorbed into the circulation.

But is it requisite for the building up of nerve tissues, as stated by Campbell and Radcliffe. We believe not. The best authorities show that nerve tissue is made largely out of phosphates, and not alone from fat, and that the needed fatty substance is found in the vegetables we eat. Fat is a substance which forms a union with oxygen in the blood, and through that union produces heat, but whether that heat is necessary, is still a question. Vital heat, of course, is a necessary concomitant of life, but vital heat is formed in the organism by other processes than the combustion of fat, and it is a matter of doubt whether the use of crude fat is at all necessary for the production of the highest health in a human organism.

The electrical charge of which Radcliffe speaks, is purely imaginary; in the connection of hydro-carbons with it, of course, wholly conjectural. But there is one thing that is true of hydro-carbons, and that is, they are purified in the liver before used in the general organism, and hence when introduced in excess of the needs of the system, tend to obstruct that important organ and produce innumerable ailments. The actual fact is that ninety-nine-hundredths of all the people use hydro-carbons in excess, and nearly as many of them suffer from liver derangement and consequent nervousness as the result.

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THE LAWS OF HEALTH FOR 1880.

Nearly two years since this journal was established upon the only correct principle of journalism, namely: that we had something to say that was not well said by any other. For these two years we have been engaged in setting forth truth of the most important character on a most important subject, and as the almost universal testimony of our readers shows, our efforts have not been unappreciated. As a consequence our journal has had a most satisfactory success.

But though we have said many new and valuable things, we have not by any means exhausted our resources. During the coming year we propose that the journal shall so far exceed itself that old subscribers as well as new will be both delighted, and instructed. The programme is an attractive one, and we offer the present number as a specimen of what is to be. We mean to spare no labor to place before our readers important ideas in a form easily apprehended by even the careless reader

We would call attention to the series of articles on FOOD—WHAT AND HOW WE SHALL EAT—the first of which is given in the present number. We believe the series will be one of the most valuable that has ever appeared in any journal of health, and it is the subject upon which the American people need instruction more than upon any thing else. The method of presentation will be popular at the same time that it is scientific, and we believe that men of thought who are competent to reason upon these subjects, will be attracted to this exposition of the true system of diet. Our readers who are interested in the progress of their fellows, should make an extra effort to bring these articles before the minds of the representative men of their communities. Lawyers, physicians, ministers of the gospel, should investigate this matter, and so learn not only how to avoid sickness, but how to develop vigor of mind and body in the highest degree.

The articles ON VENTILATION will be continued and will be supplemented by others on the subject of heating. All thoughtful and intelligent men should read these carefully, so as to be able to secure to themselves pure air, as one of the necessaries of health. In addition, the series on WATER AND ITS USES, will be found exceedingly valuable. The whole subject of bathing, in health and disease, will be discussed, and we doubt not, with a candor and a skill that will be satisfactory to all who follow us from month to month.

Nor have we forgotten our series on INVIGORATION. We propose to continue these until the plans of growing into health by nutritive-cure processes, shall be fully set forth

These articles by the editor will be supplemented by important ones from other competent writers. Dr. Tenney will continue to supply his best thought to THE LAWS OF HEALTH, and Dr. Price, also, will appear before our readers from month to month. Every month valuable rules for the home-treatment of one or more diseases will be given by a competent physician. Other contributors have promised assistance, so that we believe we can offer to the people a complete round of knowledge on the subject of health and treatment of disease such as can be obtained nowhere else on the continent at any cost. We are willing to be put in comparison with any other health journal in the world.

The terms are as formerly, 50 cents a year, or $1.00 for three subscribers. The long nights are coming, offering the best opportunities for education and improvement, so that we urge upon our readers attention to this matter WHO CAN SEND US TEN ADDITIONAL SUBSCRIBERS? THE CAUSE OF HUMAN IMPROVEMENT WILL BE GREATLY ADVANCED BY A LITTLE EFFORT in this direction, and I am sure that it will be put forth by our friends.

Address,

ROBT. WALTER, M. D.,

Editor and Publisher,

Wernersville, near Reading, Pa.

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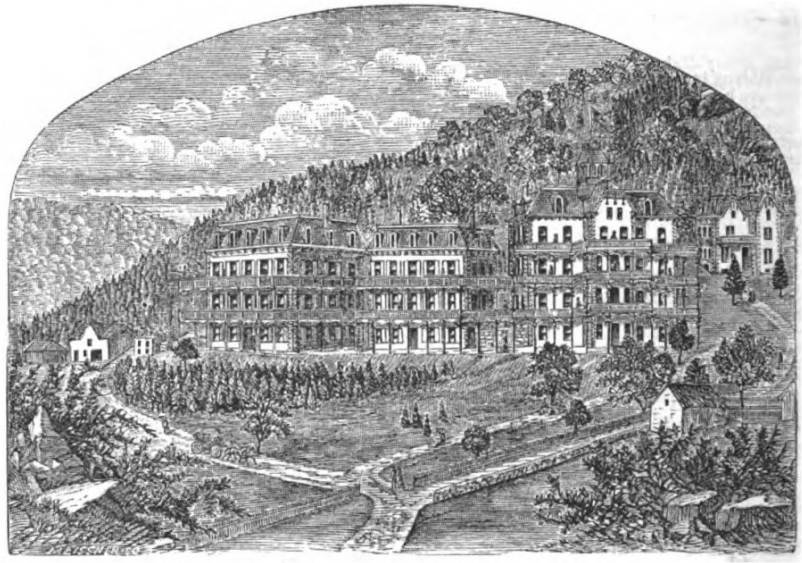

THE above engraving shows progress. Six years ago the Drs. Walter were attracted to this locality by the purity of the air, the beauty of the scenery and the softness and purity of the water. They came as strangers into a strange country, bringing with them only willing hands and stout hearts, and a system of treatment for invalids which differed essentially from all the systems in vogue, in that it undertook to restore health *by the use of such means only as tend to keep people well.* Many years' experience among invalids taught us that the popular plan of curing one disease by producing another is both unphilosophic and unsuccessful; and that a new and different system was urgently demanded.

THE NUTRITIVE-CURE

was the result. By this we mean the production of strength and vigor, and the cure of disease, through processes of nutrition alone. This practice was followed in temporary quarters for three years with most excellent success, by which the propriety of the system, as well as the value of the location, was proved; when we determined to build, and the first building of the engraving was soon in process of erection. In the spring of '77 we moved in, and during the year it was crowded with the friends and neighbors of those who had tested the merits of the system. The following spring the second building was added, and still following, the third, until now the fourth large building is in process of erection, and will be finished the coming spring. Out-buildings have been erected and orchards planted, gardens prepared, and many other conveniences arranged for the comfort and health of those who visit us.

Winter and summer there has been increasing demands for room, and to-day we have to report a large family, who are comfortably quartered for the winter. But we have room for more, and invite invalids everywhere to come and be restored. We can assure them that there is no mistake about the success of the methods. The new circular just issued will be sent to any address, and will give ample references, which, however, can be increased by the hundreds, and the new pamphlet in process of preparation will make such a showing that no one can doubt the success of the methods.

TO OUR FRIENDS.

The great faith which we have in these methods, and the determination to leave nothing undone to prove their correctness, has been the incentive to build. The first building was too small; the second was added and we still found ourselves cramped for room; the third gave us additional accommodations, but immediately we discovered that parlors, dining-rooms, treatment-rooms, were all too small for the enlarged business; and hence, to make ourselves the most convenient and satisfactory institution possible, we have added the new building, at great expense, and on the faith of correspondingly increased patronage. The risk involved would ordinarily be considered great. But we fear not. Truth will win. It cannot be that a system so demonstrably valuable can fail. It is the crying need of the age, and sick people will discover their wants. But

WE NEED HELP.

There are invalids in your communities who would be thankful for a word of encouragement from you; and while you will be doing them good, you will be aiding us, as well as the cause of human improvement. You, yourselves, have no doubt of the greatness of the enterprise, and its value to the fortunate ones who patronize it. Will you aid us in extending our efforts into new fields? During the last year we have been so successful in restoring invalids that we are more and more enthusiastic over the system which accomplishes so great results. Who will send us

THE NAMES AND ADDRESSES OF INVALIDS?

But better still, who will carry words of counsel and wisdom to them. Thousands are dying who need not die; and thousands are daily suffering who need not suffer. The way to health is clearly discernible if the true light is permitted to shine; and all who know of the better way should hold the torch of truth to guide the wandering feet to health and happiness.

Address for circulars and full information,

ROBERT WALTER, M D.,
Wernersville, near Reading, Pa.

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THE LAWS OF HEALTH.

Health is the normal condition of man. Remove the cause and the effect will cease.

VOL. II. READING, PA., FEBRUARY, 1880. No. 10.

Food.—What and How we Shall Eat.

BY ROBERT WALTER, M. D.

Having decided that inorganic matter is not food for man, because it cannot be appropriated to the building up of human flesh, but that he is restricted by unvarying decrees to the organic world composed of vegetables and animals, our next inquiry is, which of these is the superior food? This inquiry is rendered necessary because of the claims that have latterly been strongly urged in favor of a strict vegetarianism as against the mixed diet in common use. That both vegetables and flesh are food for human beings, is unquestionable. Not only has experience proved that man can feed upon either of them, but all testimony, historical and physiological, goes to show that both are properly aliments. But the fact that man can live upon either is no evidence that both are necessary, or that either is better than the other. The practice of men on this subject is very different, and the theories quite as different. Certain classes live almost wholly upon animals, while certain others feed almost wholly upon the vegetable kingdom, so that we have ample experience to draw upon in deciding for or against a system of diet.

HISTORICAL ARGUMENT.

It has been asserted by physiologists, comparative anatomists, and students of this subject of diet, that man was originally purely vegetarian. I believe this was the testimony of the great Cuvier as well as of other naturalists, while history is also cited whereby to prove the same fact.

The Bible is properly referred to as sustaining the view. We read in the account of the creation, Genesis 1–29, that God said, "Behold I have given you every herb bearing seed which is upon the face of the earth, and every tree in which is the fruit of a tree yielding seed; to you it shall be for meat." There is nothing here said of the slaying of animals for food for man, and it is not apparent that such a thing happened for generations after the creation. So much is properly cited in favor of vegetarianism; but it is not less to be remembered that this same authority which in the beginning gave man of the fruits of the earth only to eat, also did supplement that decree with the supply of animal food for his wants. After the flood, we are told that, "Every moving thing that liveth shall be meat for you; even as the green herb, have I given you all things." There is no explicit argument, therefore, from the Bible, in favor of one system of diet or the other. Indeed, we infer this book to be not a teacher of physiology, any more than of astronomy or therapeutics. In the beginning men were permitted, not commanded, to eat all vegetables, fruits, and seeds that grow upon the face of the earth; and thereafter he was permitted to slay and eat of animals, reptiles, or other living things that move on the earth. It seems impossible that any *command* is enjoined here, because some things were afterwards strictly prohibited, and to-day it is well known that other things are absolutely poisonous and destructive to human life. Hence, though in general terms, man is permitted to roam creation in search of food, eating from any organized substances that will serve his purposes, he is not commanded to indulge in any degree beyond what his experience proves to be useful. But while these declarations do not restrict man to either animal or vegetable diet, they nevertheless do serve to point the truth which we have already stated, viz.: That man can eat only organized substances, being cut off from the use of all unorganized or disorganized material. Elements, inorganic compounds, chemical combinations, are utterly inappropriable, while all organized substances are permitted to be used.

An important fact to be noted in connection with the Bible history of this subject is that as early as the time of Noah, previous to the flood, animals were classed as *clean* and *unclean*, the former according to the Mosaic law being fit for food and the latter unfit. Noah was commanded to take of clean beasts by sevens into the ark, and of unclean beasts by twos; but whether the extra number of clean beasts were for purposes of food for the inhabitants of that small colony, is not stated.

The use of animal food is also frequently noted throughout early Bible history. Abram, even, is said to have entertained the Lord with a fat and tender calf on the plains of Mamre, and and no rebuke therefor is recorded. But we pass over these various mentions to the time when the Israelites moved out of Egypt, and commenced their strange wanderings in the wilderness. We infer that while in bondage these were meat-eaters in great degree, for after they had joined in the march from bondage to freedom, and were necessarily restricted in their diet, they murmured very greatly against their leader, saying, "Would to God that we had died by the hand of the Lord in the land of Egypt, when we sat by the flesh pots, and when we did eat bread to the full; for ye have brought us forth into this wilderness, to kill this whole assembly with hunger."

These murmurings were loud and frequent, and required recognition, and they were answered by a supply of quails and manna, but whether these were given as a necessary supply, or given in answer to unreasoning murmurings, we are not prepared to say. Undoubtedly the propriety of using animal food is at least recognized in this fact, as it is plainly set forth in the history of the Jewish nation. In the laws for the regulation of the Jewish people in their social as well as political economy, we find the important distinction before referred to between clean and unclean beasts. Clean beasts were prescribed as food, while the unclean were not to be used at all.

We have reason to suppose that there is sound reason in this distinction, which makes one class of beasts fit for food for human beings and the other class unfit. The hog is, to-day, the grand representative of unclean beasts, and as such was prohibited to the Jewish people. And that he is unclean in more senses than one, all observation proves; and hence the impropriety of using his flesh for food is as great to-day as it ever was. There has been no change in the laws of mechanics chemistry, physiology, or morality, as the result of any written formula or want of written law. The laws of God exist in the nature of things to-day, as they always have done, and men are called upon to obedience to those laws just as truly under the Gentile dispensation as under the Jewish. The right to eat hog was never intended to be secured to man by the birth or death of the Savior, and though it is continually represented that the Christian is not under the law but under grace; that salvation, happiness and heaven, shall come to him as a free gift, and not through the performance of rites and ceremonies, he is nevertheless required to live in obedience to nature's decrees. Food which was unfit for man two thousand years ago, has not been rendered fit for him by any dispensation of grace. There is no more justification for eating hog which was condemned under the Mosaic law, than there is for refusing to recognize a day of rest, or any other of the natural rights, duties, or responsibilities of man.

Under the New Testament dispensation, the Christian is not called upon to be circumcised, but while he is relieved of this duty, he is called upon to abstain "from things strangled, from blood, from fornication," and, unquestionably, from the use of unclean and unwholesome food. The calling of a fisherman, was never considered degrading or improper, for the fishermen of Galilee not only

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spread their nets and lived upon the fruits of their labor, but they became teachers and apostles to the whole world; hence the use of fish as food is inferentially justified. The Savior himself, during that grandest period of earth's history, represented by the great tragedy of all time, and crowned by the grandest triumph of ages, proved his life after death by the eating of a broiled fish.

Out of all these facts the vegetarian, who believes in the Bible, must get sorry comfort. Indeed, I cannot conceive how a man accustomed to look at facts as they are, and to accept them as nature presents them, can argue vegetarianism out of Bible history. Surely such person must have become a wonderful adept at closing his eyes to those things he does not wish to see, and of calling upon a fervid imagination for those that do not exist.

Scrofula.—No. 22.

By J. A. Tenney, M. D.

Consumption. This disease was formerly described under a variety of different heads, corresponding to its leading characteristics or symptoms. Thus, if cavities were formed in the lungs, it was called *apostematous* consumption, from *aposteme*, meaning an abscess. So people were said to have *catarrhal, hemorrhagic*, or *tuberculous* consumption, according as these conditions or symptoms were most prominent. But properly there are but three varieties of consumption. One of these results from the accumulation of fibrinous matter in the lungs, consequent upon pneumonia. In ordinary cases of pneumonia this fibrinous exudation is absorbed into the blood, and carried away from the lungs, leaving them as free as they were before there was any accumulation; but in some cases the deposit remains, to be removed in succeeding months, or to destroy the patient's life by the obstruction which it causes to the breathing and circulation.

Another form of consumption arises from catarrh of the bronchial tubes, or bronchitis. Chronic bronchitis is not necessarily a dangerous disease; but in some cases the exudation becomes more and more acrid, and ulceration and breaking down of the lung tissue follows. Miners, millstone-makers and stonemasons are peculiarly liable to this form of consumption, on account of the dust inhaled, which irritates the bronchial tubes. It is also found frequently among the factory operatives in England, on account of their being obliged to breathe the particles of china clay, used to adulterate the sizing applied to the warp of manufactured goods. Sometimes this disease affects the smaller bronchial tubes, or causes collapse of the air-cells of the lungs, in either case producing death from obstructing the air passages.

The third form is called tuberculous consumption, from the formation of tubercles in the lungs. These small, cheesy particles are generally about the size of a millet seed, and they accumulate outside of the air-cells, around the small vessels and capillaries. The only method of expelling these is by ulceration and expectoration; consequently the prospect of recovery depends entirely upon the extent of these deposits, and the constitutional vigor of the patient; but if a person is very vigorous, such morbid growths are not likely to form at all.

Consumption arising from pneumonia has been called by some authors *fibroid phthisis*. It is caused by a failure upon the part of the vital powers to remove the fibrinous exudation from the lungs after pneumonia, as already stated. It is so similar in its signs to tuberculous consumption, that it is necessary to become acquainted with the history of the case in order to discriminate between them. If it appears that one or both lungs were solidified to some extent during pneumonia, and had remained so afterwards, it may reasonably be inferred that the deposit is fibrinous instead of tuberculous in its character. The left lung is more liable to be affected than the right, but it is not uncommon for both to be affected to some extent at the same time. There is a flat sound over the diseased portion upon percussion, and upon applying the ear, no sound is heard, showing that the air-cells of the affected part are obstructed. If this obstruction is very great in its extent, the general health will suffer in proportion. If one lung is completely invaded, the circulation will be likely to become so much impeded as to cause general dropsy and enlargement of the heart. After a time, if the patient does not possess a strong constitution, death is likely to occur from weakness, being preceded by a comatose condition, caused by blood poisoning. This result is more likely to follow the constitutional variety of the disease; for it may be caused by other means than as a sequel of pneumonia. If it does depend upon inflammation in the lungs for its cause, the patient is much more likely to recover; it being, under such circumstances, the most hopeful form of chronic lung affections.

In the treatment of this form of consumption it is generally necessary to use all the hygienic agencies and appliances, in the most careful and judicious manner, to build up the patient's vital vigor. All stimulants should be avoided, and the diet should be nutritious, taking care to exclude everything from the dietary that is not food in the strictest sense. If there is general dropsy, hot baths will increase the circulation in the surface, and so relieve the jaded heart and lungs. Dropsy always depends upon feeble circulation, and whatever causes a better circulation in the extremities relieves this condition. Passive movements, or those given by an attendant, are invaluable aids to accomplish the same result. If the lungs and circulatory organs are relieved of their work to a considerable degree, and the general health is built up to a vigorous condition, the matter contained in the lungs will be absorbed, and the patient will recover health.

The Sitz Bath.

This is one of the most generally used hydropathic appliances, being especially applicable to the treatment of disorders of the pelvis and abdomen, and it is used either deep or shallow, as the conditions of the patient demand. The shallow sitz bath is very serviceable in diseases of the rectum, such as piles, fistula, etc.; while, if the organs higher up in the pelvis or in the abdomen, are diseased, the sitz bath should be deeper. The object of the bath when cool is to carry away any morbid heat which is coincident with inflamed or irritated organs; or when warm to soothe irritated parts; or when hot to derive blood from congested internal or superior organs to the surface.

Form of Sitz Bath.

A round tub, the size of a small washtub, with one-third of the staves extending eight or nine inches above the natural top, as a rest for the back, and the bottom raised two or three inches from the floor, is a convenient form. A better tub, as far as comfort is concerned, is made of white pine boards, good quality, V shaped, with the back about as high again as the front, and the two sides fitted in and curved at the height of about twelve inches, inside measurement, similar to the arms of a chair. The bottom should be about 12 x 18 inches inside, and the opening at the top about 19 x 18 inches, for a medium sized person. They can be made larger or smaller, as needed. The joints should be well leaded and grooved, and the tub well painted to prevent leaking; or the joints may be tinned and painted. If these tubs can be made thoroughly water-tight, they are, by all means, the most superior sitz bath tubs. Tin sitz bath tubs can be purchased, also, at the hardware stores, but they are generally too small for ordinary use. A common wash tub, raised on one side from the floor by placing something under it, will answer in an emergency.

The patient is stripped of clothing, and standing in front of the tub, which is filled half full of water, at the requisite temperature, sits into it, resting against the back, being covered with a blanket or sheet. The feet should be thoroughly warm, and the head kept cool by the wet towel. If the feet are at all cold, they should be put into a hot foot bath during the time the patient sits in the sitz bath. After sitting in the sitz bath for five minutes, the temperature of it will be considerably raised by heat from the body, and hence it is advisable to pour in a pail nearly full of cold water, the patient rising meanwhile, and stir it up, and dip out an equal quantity; when the patient sits into the bath again, and remains five or ten minutes longer. On coming out, he should be rubbed thoroughly dry. If

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his feet have been in the foot bath, he can stand in the cool water of the sitz bath tub to cool them off; and being thoroughly rubbed, may dress and exercise, if he is strong enough, or is not suffering from acute sickness; or retire to bed. This bath may, in chronic cases, be repeated two or three times a week to advantage, while in acute diseases, where the progress of the disease is rapid, and requires correspondingly vigorous treatment, the bath may be repeated two or three times a day, if necessary.

The time is coming when no house can afford to be without a good sitz-bath tub as a necessary means of cleanliness, of cooling and of health. Women, who wear excessive quantities of clothing about the hips, or who sit in easy chairs, or by any other means induce heat and irritation of the pelvic organs, should employ the sitz bath occasionally. Scarcely a woman in the land but would be decidedly benefited by a sitz bath of ten minutes twice a week, in connection with a general bath for cleanliness once a week. Men who are engaged in sedentary occupations will also find it very useful. Indeed, whenever the organs of pelvis or abdomen are heated, inflamed, irritated or debilitated, the cool sitz bath will be found serviceable for occasional use; or when there is acute inflammations or congestions of internal organs higher up, the hot sitz bath for five to ten minutes will be indicated.

Sudden Deaths.

By L. Jones Price M. D.

These are occurring with great frequency of late years. Judge Ketchum died Dec. 7th, of heart disease. Hon. Wm. Darlington fell dead in the court house at West Chester, Dec. 8. Hon. Alfred M. Lay, member of Congress from Mo., died suddenly of apoplexy at Washington at about the same time. The Hon. Zach. Chandler was found dead in his bed at Chicago. Why do men who appear to be enjoying excellent health die so suddenly from apoplexy or heart disease? Is it not because of their improper habits and the indulgence of abnormal appetites? By improper habits are meant,

1st. The overworking of the brain, with insufficient physical exercise, which tends at first to precocity of intellect, but in the end to exhaustion of vital force, and a consequent relaxation of the blood vessels of the brain; in other words, a passive congestion of it. With this condition once established, any undue excitement or exertion may cause a rupture of some of these vessels, and apoplexy is the result.

2d. Insufficient sleep, which prevents the brain from recuperation; in consequence of which it becomes weakened and liable to congestion and apoplexy.

3d. By eating excessively of *stimulating* and *concentrated* substances, such as sugar, eggs, fats, milk, mustard, pepper and salt, *obstructions* and *congestions* are produced in the various organs and tissues of the body, which necessitate increased action of the heart to remove; in consequence of which the heart becomes enlarged, and then, as all physiologists agree, the walls of the heart become weaker and thinner; consequently any over-exertion or excitement, or excess in eating, will compel the already weakened heart to more exertion than it can stand, and rupture or paralysis is likely to follow. "Moderation in all things is the golden rule of health." To live temperately is to live long, without spending half your earnings for doctor bills and drug poisons, which only hasten the end you are striving to avoid.

4th. By the use of alcohol and tobacco, two poisons, without a single redeeming feature, (as far as the human organism is concerned,) hundreds of thousands of people are made miserable, wretched, poor, and often insane, and some die from the immediate effects of these poisons. Both of them are stimulants and consume vitality very rapidly. They stimulate the organism to greater action for the time being, but in the end, exhaustion and death from paralysis of the brain or heart follow. These two substances cause more misery and crime than all other agents combined. They not only exhaust the vital forces, but they excite and inflame the passions of men to such a degree as to render them uncontrollable—blind to moral and religious restraints, causing them to commit crimes, or to end in sudden deaths. Consequently the moral as well as physical welfare of man is dependent on the substances he uses for food and drink. The grains, vegetables and fruits, and pure water, are the proper articles for man's dietary. From these, in conjunction with proper exercise and sufficient sleep, will be derived normal action, which means physical vigor and moral strength, which precludes some, if not many, of the sudden deaths which the papers chronicle.

"The Voice."

The February number of "*The Voice*," a monthly devoted to voice culture with special attention to stuttering and stammering, contains very readable and instructive articles, the chief of which are:

The Unspeakable: or a Stutterer's Struggles, Triumphs, and Tribulations.
Dr. Klenke Defended against Mr. Howard's Attacks. By Leo. Kofler of New York.
Good Reading. By John E. Bradley, Ph. D., of Albany, N. Y.
Comstock's System. By C. C. Ellis of Washington, D. C.
The Uvula R, By John Howard.
Broken Speech-Chains—How a Stutterer was Cured.
The Need of Vocal Culture.
Another Warning to Stutterers.
Voice and Speech; their Pathological Relations. By J. S. Bristowe, M.D., F.R.C.R., of London.
The Religion of Ancient Greece. By Rev. Wm. H. Fish, Jr., of Troy, N. Y.
What Speech-Sufferers and Others Say about *The Voice* and Themselves.
Naturalness in a Speaker. By Rev. E. P. Thwing of Brooklyn.
The Pulpit and the Stage.

"*The Voice*" is published at Albany, N. Y., at $1 a year; single copies, 10 cents.

Ministers of the Gospel

ought to study hygienic science, and to this end should read The Laws of Health, the most advanced and thoughtful of publications on the subject. It will be furnished to all such at half price. Will our subscribers bring it to the attention of their pastors? This is, we believe, the most important reform and aid to true religion of the age. But don't order it for them without their consent.

Bound Copies of the Laws of Health.

The following but reiterates the statements from a score of other persons who have lately written us: "Can you supply me with bound copies of the Laws of Health from the beginning? I will give almost any price for them." We regret of course that we have not preserved large numbers to be bound. We have a *few copies* on hand, however, and with the end of the present volume in April, they will be bound and for sale. The price will probably be $2 each, for two years' numbers nicely bound, which will cover cost of binding and mailing.

What They Say of the Laws.

We are thankful to our readers that their subscriptions are coming in promptly, but we would remind all, that to renew promptly is to save labor and trouble in mailing and accounting.

Every mail brings the most cheering intelligence of the work which "The Laws" is doing. Our readers seem to appreciate it, if we may judge by their testimony, above that of any other journal devoted to health subjects published in the country. We could fill a page every month with testimonials that might savor of flattery; and hence we must believe our readers really do appreciate this journal, small and unpretentious as it is. They perhaps remember that it is not all gold that glitters; that size is not the measure of merit; that it is not the number of words that a magazine contains that makes it valuable, but the truth there expressed. "I like your magazine," "Superior to any other published," "I would not be without it for ten times its cost," are the declarations that continually reach us.

The Laws for 1879 and 1880.

Though we are unable to supply more than a dozen volumes of "The Laws" from the beginning, we are prepared, nevertheless, to supply a large number from January, 1879. And all persons who are interested in health subjects should make themselves acquainted with its teachings. The form of the journal, and the fact that it is published by a practicing physician, might make some persons think that it is simply an advertising sheet; but we believe a careful perusal of its contents will disabuse their minds of this idea. That a physician's practice should be increased by his ability to teach great truths, as well as put them in practical operation, is not to be wondered at; but any man who imagines we are content with securing "grists for our mill," is wonderfully mistaken. We have a higher and nobler ambition in this matter than the making of an advertising medium. Though money is not to be repudiated or sneered at, it is, nevertheless, not the most important part of life; nor does it alone bring happiness, or pleasure, or satisfaction, as some seem to think. There is a deeper and a truer satisfaction in the feeling that one is able to give out to the world a purer and more refined value than gold; and that satisfaction is ours every day. We may receive from our readers, or from our patients, the pay for our services, but we give to the world that which is infinitely superior to the dust that blinds and dazzles and renders insane so many millions.

Our mission as teachers and practitioners is to us a spring of perpetual joy, in that while we labor for the bread that perisheth, we are correspondingly laboring for the eternal reward. Hath it not been said, "Give and it shall be given unto you, pressed down, shaken together and running over shall men give into your bosoms." Reader, we count it no wrong and no degradation to ask you to subscribe and journey with us through the coming year. We believe that no reader during the last year would wish his money back, and we trust that the year to come will not be less prosperous. Our subscribers may commence the volume either with Jan., 1879, May, 1879, or Jan., 1880, or with any intermediate numbers. New subscribers will please state their wishes in this respect.

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The Laws of Health.

Monthly, 50 Cents a Year.

ROBERT WALTER, M. D.,
Editor & Publisher.

J. A. TENNEY, M. D.,
Associate Editor.

☞All communications should be addressed to Wernersville, near Reading, Pa., the residence of the editor.

READING, PA., FEB., 1880.

OUR PLATFORM.

1. The vital power in the organism is the only healing power.
2. The rapidity and the certainty of cure depend as much upon the degree of vitality—the amount and quality of the vital force—as upon the distribution of it.
3. The symptoms may be changed and the disease often cured by reducing the quality or degree of this force, on the one hand, or by increasing it on the other.
4. Bleeding, purging stimulating, and all drug processes, as also the Water and Diet cures, as usually employed, cure on the former plan,—the plan of depleting the system.
5. The Nutritive-cure, on the other hand, cures only by building up, invigorating, and purifying the organism.
6. The true way to cure invalids therefore, is to distribute the vital force to its appropriate channels by means which shall increase, but never reduce the vital vigor.
7. This is done by the use of normal health agencies, which while equalizing the circulation, in which all nutrition takes place, increases the production or manufacture of vitality, and reduces expenditure.
8. The breathing, digestive and circulatory systems comprise the organs of manufacture; while the brain, and nervous systems comprise the organs of expenditure.
9. The organs of manufacture are largely muscular, and depend for the performance of their functions on muscular contraction and relaxation; while
10. The organs of expenditure are mostly nervous, and depletion corresponds to the excitability and activity of the nervous systems.
11. All processes are to be employed to invigorate the muscular systems special and general, while at the same time they tranquilize the brain and nervous systems thus producing quiet content and rest.
12. The Nutritive-cure embraces these principles, and by representing a scientific combination of exercising, breathing, bathing, eating, sleeping, resting, clothing, &c., is the only scientific system of medication in existence.

Plagiarism.

Vice seems to be contagious; certainly the vice of stealing other people's thoughts and palming them off as our own. Even ministers of the gospel are latterly convicted of this despicable meanness.

We have a word to say with regard to the use of the articles which appear in this journal. The editor is not unconscious of the fact that he occasionally sets forth some valuable thoughts in a clear and somewhat pleasing style, and he is entirely willing to have his exchanges make use of anything that they find, but he asks as a simple right that they shall give credit to whom credit belongs. To take an article, and twist it over so as to serve as an editorial for a paper whose editor is either too lazy or too incompetent to write for himself, is not a commendable action. Yet every once in a while we discover that we are extensively appropriated in this way. Will the editors please remember that this paper costs us time, labor and money, and though they are given freely, we, nevertheless, do not like to have the results appropriated without our consent. Please give the proper credit, and so be able to retire to your beds with an easy conscience. It is not less dishonest or despicable to steal the fruits of one's brain, than to steal the fruits of his hands. To be sure, the former loses nothing by use, but nevertheless, every man who produces a thing that is valuable, is entitled to the credit therefor.

Colds.

Some people are constitutionally liable to take cold, while others are almost entirely free from such liability. Occasionally we see a person who is not obliged to exercise any particular care in this respect, but who can resist every sort of exposure, and defy all kinds of weather; but the majority of people must be careful, or they will contract this disease from the slightest causes.

There are two prominent ways by which one may take cold: one is, by exposing a part of the body to cold at a time, as in being exposed to a draft of air; the other arises from confinement in overheated rooms. Most people will take cold if they are exposed to a draft of cold air. The unequal distribution of heat in the surface, which it occasions, causes the skin to refuse to do its duty, and so its work is taken up by the lungs, kidneys, etc.

But perhaps the most common cause of colds is overheated rooms. This cause operates, without doubt, in many cases where colds are contracted from exposure to a draft, the skin being first weakened by continued exposure to an atmosphere overheated. Those who are most liable to this disease should be especially careful to live in well-ventilated apartments, and should also expose the whole body, warmly and equally clad, to the air out of doors, for several hours each day, if the person is in ordinary health.

If a cold is felt to be coming on, the person should have a hot full bath at once. The temperature should be 100 degrees at first, and should be increased, after the patient is in it, to 105 or 110 degrees. This bath should be continued for five minutes, when the water should be cooled to 95 degrees, and the patient taken out and rubbed dry. If the bath is taken at night, going to bed immediately after it is the best thing to do; if it is taken in the day-time, it is better to lie down and be well covered for a time. The hot bath restores action to the skin, and so relieves the internal organs of the body from doing other than their own work.

Drinking Blood.

It is difficult to say in which respect this practice excels most; whether in its unscientific aspect, or in its repulsiveness to human instincts. Perhaps its loathsomeness is what has brought it into use, because it comports with the desperation of the hopeless invalid; surely, no one can contend that it has any other support. In the first place, if it could do the patient any good as blood, it must be received directly into the circulation, which cannot be done if it enters the stomach; for there it must be digested first, like any other food. We presume no one will contend that it is better food than anything else.

The only way in which fresh blood could possibly benefit a sick person, would be to receive it into his circulation, by introducing it into an open vein. But it has been proven by numerous experiments that one person's blood being given to another in that way will only help sustain life to a limited degree, and for a very short space of time. It can easily be shown that the blood of slaughtered animals cannot be used even in this way.

Physiologists agree that the life of the blood resides chiefly in its corpuscles, which are minute bodies floating in the blood, measuring from one three-thousandth to one four-thousandth of an inch in diameter, the former measurement applying to most of them. But the blood-corpuscles of the slaughtered animals do not come within these measurements, as the following table will show:

Those of the elephant measure,	1.2700	of an in.
The Ape,	1.3400	"
Dog,	1.3500	"
Wolf,	1.3600	"
Ox,	1.4200	"
Cat,	1.4400	"
Horse,	1.4600	"
Sheep,	1.5300	"
Goat,	1.6300	"

Thus it will be seen, that the wolf, dog and ape are the only animals in the list whose blood-corpuscles come within the same limits of measurement with those of man. From whatever stand-point we view it, the practice of blood-drinking is as repulsive to the intellect as it is to the senses; and we trust the time is not far distant when the better sense of the people will rescue them from placing confidence in any such method of restoring health.

A New Remedy for Consumption.

Quite a stir has lately been made in Germany, says the *London Lancet*, by what is considered a new remedy for tuberculous consumption. It consists of a solution of benzoate of soda, inhaled twice daily by means of an atomizer, using a five per cent. solution, in the proportion of one part to the one-thousandth part of the patient's weight. So if the patient weighs 150 pounds, the quantity inhaled at one time would be 2½ ounces. It will be seen at once that this is a large quantity to be breathed daily in the form of vapor.

The remedy is supposed to destroy the *bacteria*, or specific germs upon which the condition of tuberculosis depends. But no facts have yet been brought forward to prove the theory, nor is it likely there will be. It assumes, in the first place, that the germ theory of disease is correct, which is far from being proven. There are other agents that are known to kill

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every low form of parasitic life. Ozone, for instance, will destroy everything of the kind, so far as we have any knowledge, therefore ozone ought to kill—cure—diphtheria, tuberculosis, catarrh, etc., upon the same reasoning.

We can get at the whole matter by referring to another hypothesis similar in character, and whose falsity has been proven. In inflammatory rheumatism, it has been found that the irritant that affects the nerves is an excess of lactic acid; and so it has been supposed that some alkali, like bi-carbonate soda, would neutralize the acid, and so cure the disease. But this plan fails to cure rheumatism, for the simple reason that the excess of lactic acid is still being manufactured, and must continue to be, as long as the morbid condition of the digestive organs, that causes rheumatism, exists. So in consumption, the physicians have begun at the wrong end of the difficulty. They have got the cart pushing the horse; and while the application of certain drugs to the lungs by means of spray will temporarily change the conditions of their lining membranes, yet their effect cannot be lasting while the cause of the difficulty still exists. Effort should be put forth to increase the patient's vitality, not to dam up its morbid local manifestation.

Open Winters.

It is a common but fallacious notion that warm winters are prejudicial to health. This matter can easily be tested by any one curious about its investigation, by examining the weekly death rates in winter in any of our large cities. We think it will be discovered that the mortality is greatest after a period of low temperature. When the mercury begins to rise, the consequences of the cold weather will begin to be felt, and so people suppose that the warm weather produces the mischief, when the opposite is true. The low temperature depresses vitality at the very time when it seems to be toning up the system, just as all stimulation exhausts, while it seems to be a benefit to the one receiving it; and the succeeding warmth so relaxes the system that the consequences of the cold are felt to their fullest extent. Every one knows that the opening of spring is a time of general vital depression; but the mild weather that usually succeeds the winter cannot be the true cause of the lassitude felt at such times; it is the effect of the apparent toning, but really depleting cold of winter.

The foregoing statements seem to be corroborated by recent reports made by Dr. Russell to the Sanitary Committee of Glasgow, Scotland. He says, that after a fortnight of comfortable weather, in which the thermometer averaged 47 degrees, the death rate for the succeeding week was 21; but during this week the mercury fell to 39 degrees, and the death rate of the week succeeding it was 25. Other facts in the same direction caused him to conclude that cold weather increases the number of deaths in Glasgow.

Taking cold is one of the greatest causes of vital disturbance of which we have any knowledge, and one of the surest ways of producing colds is to expose the body to cold so long as to overcome vital resistance to it. It is a mistake to expose ourselves to severe cold weather without being sufficiently clad, or to sleep in cold rooms. A fire in one's room, with proper ventilation, is much cheaper than doctor's bills, to say nothing of the risk of death or permanent invalidism; for these cannot be computed according to any ordinary standard of value.

Nearly Restored.

A correspondent is delighted by having discovered the elixir of life. He has taken two treatments and is "nearly restored." Twenty years ago the writer, suffering from erysipelas, went to a physician, and he was cured in a few hours. He returned again the following week, suffering from another ailment, and was as promptly cured; but no sooner had one ailment disappeared than another followed, until after three months the physician gave him a careful examination, and made the sad discovery that he was suffering from heart disease, in its incipient stage; but that he could cure him, of course. He could cure anything. He doctored him for heart disease, but though he had succeeded twenty times before, he failed in curing the last and worst of all. The patient steadily grew worse, until unable to move a few rods without rest. He first received his treatment when strong, vigorous, hearty, able to do a good day's work; he ceased to receive his treatment after being reduced to helplessness. From this time one physician followed another, until the medical skill of the whole country had been exhausted, and the physicians gravely shook their heads and said that he must die.

Three times in his life the editor was consigned by sympathizing physicians to the tomb, but he learned to distrust their cures, to have more faith in nature, and to-day he lives a monument of the goodness of God in securing to every man the elements of cure, while he is equally a monument to disprove the claims of the cure-alls.

Millions of invalids are being cured every day by the plan which "cures one disease by producing another." They believe in the wondrous virtues of their compounds, and as one resource fails another is always at hand; for be it known unto the reader that sick people increase in numbers in ratio to the activity of the doctors, and patent-medicine venders, and doctors and drugs thrive correspondingly. "Always getting well but never get well," is the truthful statement with regard to all the systems that undertake to stimulate men into health. The patient is always getting well; is almost well; but just as he reaches the last round on the ladder of health he dies. Pat undertook to teach his horse to live without eating, and he succeeded admirably until he came to the last straw, when the animal died.

Our friend, in the goodness of his heart and with a true philanthropic spirit, commends this medicine to our notice as something that ought to be introduced into our institution. We will have more confidence in it when he can say that he is entirely cured; that he is well, strong, vigorous; and has been so for months or years. He is enthusiastic. He has not seen half the ins and outs of this thing yet. As he grows older he will grow to be a wiser if not a sadder man, and he will find that that goal of health which always seems so near, is still beyond his reach. We would not discourage him; let him hope on and hope ever, but after he has exhausted the resources of the compounding fraternity, let him try the only natural plan of getting health, and perhaps he will succeed. He certainly will if he is wise to begin in time, before the evil days come.

I can assure him that his compound is nothing new to us. We have treated many patients who have tested all that there is in it before they came to us, and they were invalids still. But such is life. Youth is always buoyant and ardent with expectation, while old age sits by and smiles at its ingenuousness.

Ventilation and Heating.

By Robt. Walter, M. D.

We have already discussed the subject of ventilation, and indicated the methods which are properly employed for withdrawing from dwellings the impure air; but we have also discovered that ventilation and heating are so closely connected that it is wise to consider them in conjunction. Without heating there can be no proper ventilation, and without ventilation there can be no proper heating. The one necessarily depends upon the other. If we heat the air in a room without withdrawing it, the temperature becomes much greater in the higher parts, which should be cool, than near the floor, which should be warm; producing that condition of cold feet and hot head which is very undesirable. On the other hand, heat is the necessary means of continually changing the air, so that while ventilation is absolutely necessary to proper heating, heat is necessary to proper ventilation.

Our previous articles have shown the open fire-place to be a grand means of ventilation, but have also indicated it as an exceedingly inefficient means of heating: because, while it draws the heated air up the chimney, and so is continually

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emptying the room, the cold air is crowding in at the key-holes and cracks, to supply the vacuum, so that while at the fire-place we may be roasting, at the distant portions of the room we may be freezing. This difficulty is properly remedied by continuing the open fire-place as the ventilator, while pure warm air from hot-air furnace is introduced to supply the place of that withdrawn by the draft. The only objection to this, is the expense of keeping up two fires. Each of these fires wastes three-fourths of the fuel through the smoke-flue. The best furnace ever constructed does this, and the best fire-place does worse; so that, in heating and ventilating a house, seven-eighths to nine-tenths of all the heat is wasted. Surely, some means can be discovered to obviate this difficulty. Since writing my former articles, my attention has been called more particularly to a patent device, (which, however, I have had some acquaintance with for years,) for heating and ventilating the room at the same time and by the same machinery. This invention is named, "SILVER'S WASTE HEAT UTILIZER AND VENTILATOR." It consists of a grate with a cast-iron back, set in brick work in the wall of the building, and attached to the ordinary chimney. The fire on the hearth exercises all the functions of the ordinary open grate, but the additional advantage consists in the introduction of a cast-iron flue, which connects with the air from outside, carrying it over the back of the fire-place, and through the flue, which runs up the chimney, emptying it into the room at the ceiling. By this device the open grate is continually carrying from off the floor the air which has remained in the room for some time, and become foul from use and cold from contact; while at the ceiling a volume of pure, outside, warmed air is poured into the room, which, as it gradually settles to the floor, gives throughout an even temperature. In other words, as fast as the air becomes partially cooled it is drawn up the chimney, and fresh air, warmed by the same heat, takes its place.

This arrangement supplies the most perfect possible means of combined ventilation and heating. There can be nothing superior, as I have formerly said, to the open grate for ventilating, and nothing better for warming than the introduction of pure, outside, warmed air; and though this warmed air may be introduced at any part of the room distant from the fire-place, it is probably very much better to have it introduced at the ceiling, whereby it circulates through the room and down to the floor, than to have it introduced at the floor, mingling with the cold, impure air, carrying the whole up to the ceiling.

The testimonials as to the efficiency of this means of heating are of the very highest character, though these alone are not sufficient. It is the reasonableness, the real scientific value of the principles, which we trust. In the light of these we believe there is nothing superior for both heating and ventilating at the same time, by the same machinery, and at much less cost than would be required for simply heating without ventilation. Indeed one of the chief merits of this "WASTE HEAT UTILIZER AND VENTILATOR." is its economy. The same fire that is required for ventilation through the open grate, also warms the room perfectly. In other words, three fourths of the fuel which, being heated, ordinarily ascends through the chimney and is lost, is largely retained to heat the large volume of pure, outside air which being introduced into the room, keeps an equable and pleasant temperature all the time. To be sure, this device is suitable for private houses and small families better than for large institutions, but we are so convinced of its superiority that we propose to heat the parlors of our institution in this manner. The system of ventilation at present in our building represents the most complete system known, and the heat by steam or wrought iron furnace is not readily excelled; but, nevertheless, the combined chimney and ventilator, while giving the cheerful fire, the constant evidence of the heat on the one hand, and of ventilation on the other, is so desirable on the score of economy, as well as of perfect comfort, that we cannot refrain from introducing it into our house, and were we building a private dwelling, we should not think of heating it by any other means. We recommend to all our readers who contemplate building, and even to those, who, having already built, and are not satisfied with their heating arrangements, to communicate with Mr. Silver and give his method a thorough investigation. We are satisfied that they will not be disappointed. What can be more enjoyable than a perfectly warm, even-tempered room, where the air is as pure within as it is without. Where are the terrors of winter when we may have the balmy breezes of Florida in our own buildings? If such an arrangement as this could be introduced into every dwelling in the land, we are confident that consumption, that dread monster, that hurries off so many thousands every year, would be reduced in frequency one-half. Coughs, colds, and consumption, it is now pretty well settled, depend for their existence upon the failure to breathe sufficiently of pure air. Want of proper ventilation and heating is the great evil of northern winters, which inventions such as Silver's will reduce to a minimum.

Now is the time for renewals. Please be prompt, and rejoice the printer, the publisher, and the editor. 50 cents in three-cent stamps will do; but, better still, send one dollar, and include two of your neighbors.

Questions Answered.

BY ROBT. WALTER, M. D.

Question 1. Please give best treatment for hair; are oil, ammonia, borax, etc., useful?

Question 2. What best to use for the teeth; brushes are claimed by some to be injurious.

Question 3. Can good results follow the morning bath of two minutes?

Question 4. As there is a desire for some kind of acid, would you recommend acid mouth wash to destroy the germs or mucous slime that fastens on the throat?

Answer 1. Undoubtedly the scalp is frequently benefited by the use of olive oil. Water alone, especially if unaccompanied with thorough friction, may tend to the production of dandruff, while oil in connection with friction, will keep the scalp soft, clean and free from accumulations thereon. Ammonia and borax may be useful occasionally as washes.

Answer 2. There is no truth in the statement that brushes are injurious to the teeth. A good brush and cold water every morning are excellent for cleansing purposes, and if the teeth be rubbed with prepared chalk, and brushed with the brush wet in cold water, even better results will be obtained. Prepared chalk we think the best tooth powder, and as stiff a brush as the gums will bear, with cold water, the best means of cleansing them. These should be used every morning or oftener. A good quill should be employed to remove any accumulations between the teeth after meals.

Answer 3. The morning bath is a mistake, and it will do injury rather than good. A person in health should bathe for cleanliness, and two or three times a week is sufficient in ordinary cases. The morning is really the worst time. Better take the bath at night before retiring, if you are not tired. Midday for invalids is better than either.

Answer 4. No acids should be employed but organic acids. Lemon juice or sour fruits are entirely permissible where there is a desire therefor, but any chemical preparations are to be avoided.

Question. What causes drumming in ear?

Answer. Catarrh of the Eustachian tubes, which is essentially inflammation of their mucous surfaces, is often the cause. Congestion of the brain or its membranes about the auditory apparatus, whether caused by the use of quinine or other drug poisons, is a frequent cause. Good health is the true preventive or cure, and good health may be had by living healthfully, and in no other way.

Question 1. Your definition of food in January LAWS is good, but do not physiologists teach that food is of two kinds, plastic or tissue-forming, and carbonaceous or heat-producing. Do you recognize this distinction?

Question 2. It appears to be true, as you say, that animals can appropriate only organized substances, but I am often met with the objection that fowls which have laid eggs, having imperfect shells, have, after eating lime or chalk, soon laid eggs with well formed shells. What is your opinion of the value of lime in this case?

I would say in addition that I rejoice not only in the growth of your institution, but to see you stick so closely to fundamental principles. Two of my friends have just gone to your institution,

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where I hope they will find renewed health, and I believe they will, for it can be found there if anywhere. J. C.

Answer 1. It seems entirely correct that certain foods are, by virtue of their use in the organism, converted into heat by which force is added to the circulation; but it does not follow that these substances are not also appropriated to the building up of structure. Carbonaceous materials are just as truly organized into structure as is nitrogenous or phosphatic. I believe it can be shown that only such substances as can be formed into tissue are properly food; that out of these substances the requisite heat is obtained, and hence the addition of heating or stimulating materials, that cannot be formed into tissue, is unhealthful.

Answer 2. With regard to the use of lime by hens, I would say that it may be possible for the fowl to use lime for a given purpose, and yet the fact will be no argument in favor of the use of inorganic materials by man. A hen is called upon to perform a given function, requiring the use of lime in a very great degree, hence it is not impossible that it may be used for the special purpose, without, after all, being food for the hen. Still, I am not certain that the fact is well established that the eating of lime by a hen, will increase the consistency of her eggs. If this be the fact, it does not militate against our position that lime, iron, soda, etc., is not food for man.

Question. Please give in your next number the best treatment for chronic catarrh. My little girl suffers with it continually, and I have no confidence in drugs for the disease. E. B. S.

Answer. We have repeatedly given the answer to this question, and hence can only say now, in general terms, that your daughter can be restored only by purifying the blood through establishing a perfect circulation. She may seem in pretty good health, but she is not really in good health. Catarrh is a disease which requires thorough treatment in order to cure properly. Drugs may dry it up, but render the patient in worse conditions than before, in many cases even to the destroying of life; for catarrh has often been cured and consumption produced, or uterine disease, or inflammation of some other internal organ. I would advise you to build up your daughter's health by every possible means. In the meantime leave the catarrh alone.

It would not be unwise to douche the nostrils with a bath of salt water. Take a fountain syringe, fill it full of water and perhaps add a little salt, place the glass tube in one nostril, hold the head forward and allow the water to run in at the one nostril and back out, at the other. This will cleanse the parts and cool them and tend to relief. The salt is a cooling astringent, and acts as the mildest kind of a disinfectant.

Question 1. I am suffering from rupture immediately above the os pubes, at times giving me considerable pain and suffering. When I press the bowel back with my finger, the pain is relieved. When I lie down it returns itself. A Dr. Sherman advertises a medicine, one dollar per bottle, and, as usual with such gentlemen, a half dozen bottles is requisite to effect a cure. What do you think of it?

Question 2. Do you think a porous plaster would do any good? I see advertised also, an electric belt plaster, said to be good. Shall I buy one?

Question 3d. Is a truss the best of all remedies? If so, which is the best?

Question 4. Is there any other safe remedy? I am a hygienist by principle and practice, bathing every morning in cold water, using a crash towel and flesh brush; at the same time taking exercise in the open air. Am a student, teacher, preacher and lecturer, and amateur agriculturist; a perfectly healthy man 59 years of age; never had a day's sickness, and never paid a doctor's bill.

Another question. I have four fine healthy daughters, the fourth, a girl of fourteen, has an affection of the nose or head. About once a week she blows from her nose a green scab the size of a quarter dollar. The nose never runs, and gives her no pain. Is this catarrh? Have you any confidence in the nostrums advertised, inhalants, tubes, smoking cubebs, or any other medicine? S. T. D.

Answer. Medicine at a dollar a bottle for hernia is an outrage. It is no sort of use. A plaster I would not advise, but I see nothing for you better than a good truss, and possibly you might be entirely cured in the hands of a physician who was devoted to this branch of surgery. I do not know anything of the trusses you mention. I advise you to Dr. B. P. Backus, a hygienist who is engaged in the treatment of these difficulties. I can recommend him as a thoroughly responsible man, and one whom I believe will do for you just what you need.

The electrical belts and plasters, and all that, are usually worse than nothing, but I advise you to have it attended to, for ruptures sometimes come to be serious matters.

Am glad to know that you are a hygienist, but I must warn you against supposing that bathing in cold water every morning, is hygienic practice. I assure you that it is a remnant of old water cure, which has done much injury to the people. I would advise you to quit it, and when you do so, you will find how greatly your nervous system has been stimulated by the practice. This question has been thoroughly discussed in the previous numbers of the LAWS.

With regard to your daughter, I should say that there is an ulcerated condition of the nostril, and I should strive to have it healed. The difficulty is essentially catarrhal in its nature, and is to be treated on general principles. The point is to purify the blood, and at the same time remove all local causes of irritation. I should douche the part every morning with soft water. A mild disinfectant, such as chlorinated soda, bromo-chloralum, salt, &c., would be useful. The treatment of catarrh is described briefly, above.

Question 1. Have you a book or tract on diphtheria or deafness?

Answer. No: These subjects have been treated of in our LAWS OF HEALTH during the last year.

Question 2. Does washing the ears injure or help the hearing?

Answer. It should not injure the hearing; it may not help it.

Question 3. Don't you want a student or assistant of some kind, who would like to study, and part pay with work?

Answer. We hardly have time to engage in teaching this subject of healthful living, except through our lectures and the general teachings of the institution and journal, and I do not think we could make use of the services of a student at present.

New Hygienic and Sanitary Journal.

"He who knows only his own side of the case, knows little of that."—J. STUART MILL.

THE VACCINATION INQUIRER
And Health Review,

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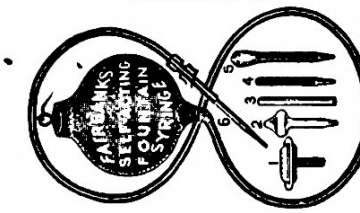

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THE LAWS OF HEALTH FOR 1880.

Nearly two years since this journal was established upon the only correct principle of journalism, namely: that we had something to say that was not well said by any other. For these two years we have been engaged in setting forth truth of the most important character on a most important subject, and as the almost universal testimony of our readers shows, our efforts have not been unappreciated. As a consequence our journal has had a most satisfactory success.

But though we have said many new and valuable things, we have not by any means exhausted our resources. During the coming year we propose that the journal shall so far exceed itself that old subscribers as well as new will be both delighted and instructed. The programme is an attractive one, and we offer the present number as a specimen of what is to be. We mean to spare no labor to place before our readers important ideas in a form easily apprehended by even the careless reader.

We would call attention to the series of articles on FOOD—WHAT AND HOW WE SHALL EAT—the first of which is given in the present number. We believe the series will be one of the most valuable that has ever appeared in any journal of health, and it is the subject upon which the American people need instruction more than upon any thing else. The method of presentation will be popular at the same time that it is scientific, and we believe that men of thought who are competent to reason upon these subjects, will be attracted to this exposition of the true system of diet. Our readers who are interested in the progress of their fellows, should make an extra effort to bring these articles before the minds of the representative men of their communities. Lawyers, physicians, ministers of the gospel, should investigate this matter, and so learn not only how to avoid sickness, but how to develop vigor of mind and body in the highest degree.

The articles ON VENTILATION will be continued and will be supplemented by others on the subject of heating. All thoughtful and intelligent men should read these carefully, so as to be able to secure to themselves pure air, as one of the necessaries of health. In addition, the series on WATER AND ITS USES, will be found exceedingly valuable. The whole subject of bathing, in health and disease, will be discussed, and we doubt not, with a candor and a skill that will be satisfactory to all who follow us from month to month.

Nor have we forgotten our series on INVIGORATION. We propose to continue these until the plans of growing into health by nutritive-cure processes, shall be fully set forth.

These articles by the editor will be supplemented by important ones from other competent writers. Dr. Tenney will continue to supply his best thought to THE LAWS OF HEALTH, and Dr. Price, also, will appear before our readers from month to month. Every month valuable rules for the home-treatment of one or more diseases will be given by a competent physician. Other contributors have promised assistance, so that we believe we can offer to the people a complete round of knowledge on the subject of health and treatment of disease such as can be obtained nowhere else on the continent at any cost. We are willing to be put in comparison with any other health journal in the world.

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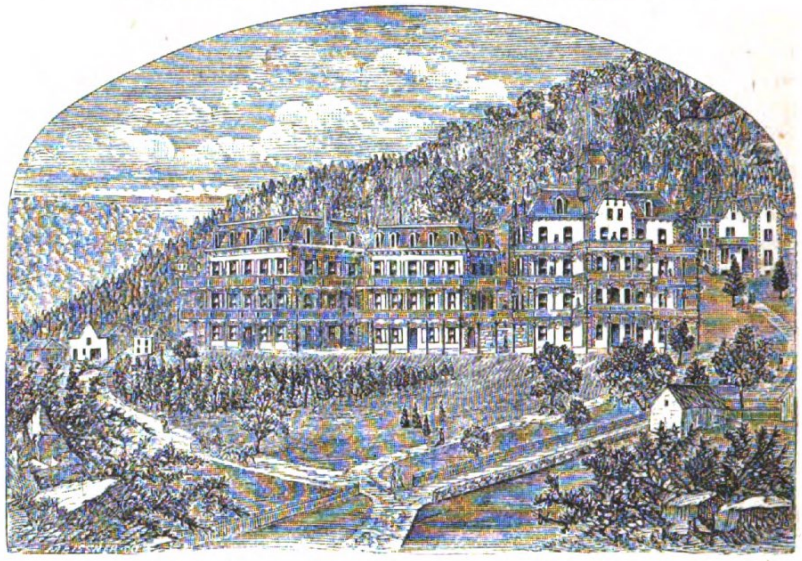

THE above engraving shows progress. Six years ago the Drs. Walter were attracted to this locality by the purity of the air, the beauty of the scenery and the softness and purity of the water. They came as strangers into a strange country, bringing with them only willing hands and stout hearts, and a system of treatment for invalids which differed essentially from all the systems in vogue, in that it undertook to restore health *by the use of such means only as tend to keep people well.* Many years' experience among invalids taught us that the popular plan of curing one disease by producing another is both unphilosophic and unsuccessful; and that a new and different system was urgently demanded.

THE NUTRITIVE-CURE

was the result. By this we mean the production of strength and vigor, and the cure of disease, through processes of nutrition alone. This practice was followed in temporary quarters for three years with most excellent success, by which the propriety of the system, as well as the value of the location, was proved; when we determined to build, and the first building of the engraving was soon in process of erection. In the spring of '77 we moved in, and during the year it was crowded with the friends and neighbors of those who had tested the merits of the system. The following spring the second building was added, and still following, the third, until now the fourth large building is in process of erection, and will be finished the coming spring. Out-buildings have been erected and orchards planted, gardens prepared, and many other conveniences arranged for the comfort and health of those who visit us.

Winter and summer there has been increasing demands for room, and to-day we have to report a large family, who are comfortably quartered for the winter. But we have room for more, and invite invalids everywhere to come and be restored. We can assure them that there is no mistake about the success of the methods. The new circular just issued will be sent to any address, and will give ample references, which, however, can be increased by the hundreds, and the new pamphlet in process of preparation will make such a showing that no one can doubt the success of the methods.

TO OUR FRIENDS.

The great faith which we have in these methods, and the determination to leave nothing undone to prove their correctness, has been the incentive to build. The first building was too small; the second was added and we still found ourselves cramped for room; the third gave us additional accommodations, but immediately we discovered that parlors, dining-rooms, treatment-rooms, were all too small for the enlarged business; and hence, to make ourselves the most convenient and satisfactory institution possible, we have added the new building, at great expense, and on the faith of correspondingly increased patronage. The risk involved would ordinarily be considered great. But we fear not. Truth will win. It cannot be that a system so demonstrably valuable can fail. It is the crying need of the age, and sick people will discover their wants. But

WE NEED HELP.

There are invalids in your communities who would be thankful for a word of encouragement from you; and while you will be doing them good, you will be aiding us, as well as the cause of human improvement. You, yourselves, have no doubt of the greatness of the enterprise, and its value to the fortunate ones who patronize it. Will you aid us in extending our efforts into new fields? During the last year we have been so successful in restoring invalids that we are more and more enthusiastic over the system which accomplishes so great results. Who will send us

THE NAMES AND ADDRESSES OF INVALIDS?

But better still, who will carry words of counsel and wisdom to them. Thousands are dying who need not die; and thousands are daily suffering who need not suffer. The way to health is clearly discernible if the true light is permitted to shine; and all who know of the better way should hold the torch of truth to guide the wandering feet to health and happiness.

Address for circulars and full information,

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THE LAWS OF HEALTH.

SUPPLEMENT No. 3. FEBRUARY, 1880.

How to be Strong.

Lecture No. 2, by Dr. Robert Walter, to his patients. Phonographically Reported.

LADIES AND GENTLEMEN:—I shall undertake this evening to supplement what I have already said to you on the subject of "How to be Strong." My previous lecture on this subject, published in our journal of health, might quite as well have been entitled "How not to be Weak," for in it I considered the negative aspects of this matter rather than the positive. For, though it was there asserted, as I now repeat, that all strength, all vigor and capacity, result from nutrition, I devoted my time to an exposition of the obstacles to nutrition and to the proper means of removing them.

This evening I shall consider the subject in a more positive light, and shall indicate the means to be employed toward improvement of nutrition through improvement of circulation; for, as you well understand, *all nutrition takes place in the capillary circulation*, and corresponds to the quality of this circulation; and as the circulation in general, exists as the aid to, and the means for, capillary circulation, and consequent nutrition and strength, I shall indicate the means by which circulation in general is to be improved.

To this end we are called upon to consider the *modus operandi* of circulation, and to examine the machinery which is employed in carrying on this important and obvious part of human existence, and let me say. first, that the circulation is divided into several departments, with reference to the organs involved in carrying it on, and the immediate objects sought to be obtained.

There is, first, the pulmonary circulation, which means the carrying of the blood from the heart to the lungs, and back again to the heart; secondly, the arterial circulation, the carrying of the blood from the heart through the arteries to the capillaries; third, the capillary circulation, the circulation which takes place in the minute hair-like blood vessels which ramify to all parts of the organism, and in which all nutrition takes place; and fourth, the venous circulation, by means of which the impure blood, resulting from the nutritive process in the capillaries, and from the food eaten, is carried back to the heart, from whence it is forced into the lungs again to be purified.

In order to improvement of capillary circulation and consequent nutrition, and the obtainment of strength and vigor, the circulation as a whole must be improved; for no part of this process can be good while the whole is poor. No department of the organization can be strong and healthy while the general system is feeble and incompetent. The heart is the first great organ of circulation. This is divided into four compartments, commencing at the right auricle, which receives the blood from the veins and immediately passes it into the right ventricle, from whence it is forced through the pulmonary artery to the lungs, the pulmonary artery being the only artery in the human body that carries impure or venous blood. After the blood returns from the lungs it is carried into the left auricle, and from this dropped into the left ventricle, from whence it is forced into the large arteries which branch in various directions, and so carry the arterial blood to the capillaries, through which it is distributed to the minutest portions of the organism.

It will be seen, therefore, that the heart performs its functions wholly through muscular contraction and relaxation. It relaxes and allows the blood to flow in; immediately the valves close and the heart contracts, forcing the blood out again in the opposite direction, in the same manner as does the elastic or bulb syringe; that is, by opening it sucks in blood from one side, and by contracting it crowds it out at the other. The quality of the circulation, as far as the heart is concerned, therefore, depends upon the vigor of the muscular system in general, and particularly of the muscles of the heart itself. With feeble muscles there must be feeble circulation, while if, on the other hand, the muscular system is vigorous, active, powerful, the contractions of the heart will correspond, and hence this important force toward the circulation be supplied.

But after the blood leaves the heart, and ascends through the pulmonary artery, is there any force which carries on the pulmonary circulation, independent of the force from the heart? We believe there is. Electrical or chemical principle comes in as a means to aid this important function. It is a well-known fact with electricians, that positive forces are attracted to negative, and negative to positive; while, on the other hand, positive repels positive, and negative repels negative. The blood which passes through the heart, on its way from the venous system, has become thoroughly negative in electrical quality, while the oxygen of the air inhaled into the lungs, on the other hand, is positive, so that we have here two substances, the one charged negatively and the other positively, approaching each other; and hence by this law of affinity they rush together, meet in the minute capillary net-work of the lungs, where the carbonaceous impurities of the blood are given off, while the oxygen is absorbed, making the blood, which was latterly dark and impure, to become red, oxygenated, positive in its qualities. The air in the lungs, on the other hand, has not wholly lost its positive qualities, because only a small portion of the whole volume is given up, so that by the blood becoming positively charged while the air still remains positive, these two substances repel each other, the arterial blood returning through the pulmonary vein to the left side of the heart, while the air is forced out by expiration, and new and more positive air is inhaled. It will readily be seen, therefore, that pure air, air that is highly charged with oxygen, possessing all the positive qualities of thoroughly oxygenated air, is an important aid toward the circulation of the blood; and hence whoever would become strong because of good circulation and good nutrition, must never forget to *breathe abundantly of pure, highly oxygenated air.* Let him remember that it is not sufficient to live in a healthy locality, or even to occupy a well ventilated dwelling; *he must breathe the air.* That is to say, his lungs must be large, active, vigorous, in order to the respiration of a sufficient quantity of oxygen. Now, respiration is carried on almost wholly by the process of contraction and relaxation of the muscles of respiration; so that here again, while we have drawn upon chemical forces to aid us in the circulation of the blood, we, nevertheless, are compelled to recognize that mechanical force, as represented in muscular contraction and relaxation, is also the important agency here. Whoever would be strong, therefore, must develop capacity of lung, must invigorate the muscles of the chest and abdomen, which really perform the function of breathing.

After the blood is returned to the left side of the heart, and received by it by virtue of relaxation of its fibres, contraction takes place, and the blood is forced into and through the arteries. Here, again, muscular contraction is the important force, but in addition we are to note that the arteries open, as it were, automatically, for the reception of the blood, and immediately close thereupon, so aiding the circulation through this power of the arteries to receive and forward. I will not dwell upon this point. Suffice it to say, however, that contraction and relaxation of the arteries, are again an efficient force toward carrying on the arterial circulation. The blood is distributed through the arteries to the capillaries, and from

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the capillaries is again given off to the veins.

Before I proceed to an examination of the circulation in the capillaries, wherein all nutrition takes place, and which is consequently the important of all the important circulations, I will call your attention to the methods of circulating the blood through the veins, and will indicate that a powerful influence operating upon these, also aids in the circulation of the blood throughout the whole system. I refer to vapor or steam as being one of the important forces toward the circulation of the blood, particularly in the veins. Heat is produced in the animal organism, by virtue of innumerable vital processes which are continually going on, and are properly described under the one term of friction. Friction, whether as the result of chemical, mechanical, or vital action, is continually evolving heat in the organism, and this heat, as every one knows, tends to the expansion of fluids; and when that expansion amounts to the production of vapor, we can see what an important element we have to be employed in carrying forward the circulation. In the veins, as in the heart we are to note there are numerous valves, these valves being placed in such manner as to allow the blood to move onward in the proper direction, but to prevent it from going back. When, by virtue of vaporization or other means, the blood in the veins is pressed forward even in slight degree, the valve opens to allow it to pass, but immediately closes if any backward pressure is brought to bear. By the continual evolvement, therefore, of vapor by the heat of the body, we have an important force which aids in circulating the blood through the body. This force is undoubtedly operative in some degree in the heart, the lungs, arteries and capillaries, but is more important, probably, in the veins than in either of the others. But important it is, as we shall show as we proceed.

Now let us consider that the venous circulation is that which carries the impure blood from the capillaries, where the most of the vital elements have been abstracted in the process of nutrition, to the heart; while the arteries, on the other hand, carry the blood, after it has been revitalized in the lungs, back to the capillaries, where the vital qualities are again appropriated to the building up of structure, and the production of vital vigor.

The arterial circulation, therefore, as well as the venous circulation, exists wholly for the purpose of the capillary circulation, the capillary circulation being the most important circulation in the body, if one part can be considered more important than another. The capillary circulation exists, as it were, at one end of the circle, while the heart exists at the other end. The heart, through the mechanical process of contraction and relaxation, forces the blood onward in the various directions, while the capillaries receive it, appropriate its vital elements, and send it forward again.

The pulmonary circulation is engaged in purifying the blood and bringing to it certain vital elements, while the heart, sending blood to the lungs, on the one hand, and through the arteries to the capillaries, on the other, is a great central organ of circulation. But while the pulmonary circulation is engaged in purifying the blood by adding to it vital elements, the capillary circulation at the other end, as it were, is engaged in rendering the blood impure by subtracting from it its vital elements, and giving out in their place the worn-out and exhausted material of the organism. The capillary circulation uses the blood for the building up of structure, for the revitalization of all the organs; while the lungs, in connection with the stomach, and liver, and kidneys, supply the blood with material for use in this direction. Hence, though all nutrition takes place in the capillary circulation, the pulmonary, arterial and venous circulations exist as necessary aids to capillary action.

Let us enquire now, what is the means employed chiefly in circulating the blood through the capillaries, and to this end let us note the structure of the capillaries. In the first place, they are exceedingly minute, being properly compared in size to the hair of the head, a thousand of them occupying but an exceedingly small space in the flesh of a human body. These capillaries ramify in all directions; having no particular course they inosculate, that is, open into each other. They have no valves, but the blood passes through them to the veins in such course as the position of the flesh will permit. They render the flesh honey-combed, as it were, with vessels, with the interstices very small. These vessels may be compared to the capillary vessels in a sponge, or a piece of cloth, or to any other substance which is made up of innumerable pores, alternating with solid matter. Being filled with blood continually, which is moving with considerable rapidity onward toward the veins, used to replace structure that has been broken down by use, while the broken-down or worn-out material is given out in exchange, they may be operated upon as any other elastic substance may be, to the moving forward of the circulating fluids.

We enquire now, what is the force that circulates the blood in these capillaries? Let us compare a piece of flesh whose capillaries are filled with blood, to a sponge whose pores or capillaries are filled with water, and let us ask ourselves how that water can most readily be made to flow out and flow in again. Is it not by contraction, or pressure; and relaxation, or the letting up of pressure? Just so, by alternate contraction and relaxation of the vessels of the flesh, blood is made to circulate through it, and nutrition correspondingly increased.

Pressure which squeezes the blood out, and the letting up of pressure which allows it to rush in again, is a grand means of circulation through the capillary system, and consequently of nutrition; and this is due chiefly to alternate contraction and relaxation of the muscular fibres of the organism. Herein is the value of exercise. Motion is the great means of carrying on capillary circulation, because motion necessitates contraction and relaxation of tissue. If it were possible for a man to be kept absolutely still, with no motion in his organism, no muscular contraction or relaxation going on, circulation would soon cease and death result; hence the instinct, which is continually upon men, for motion. No man can lie still, or sit still, or be absolutely inactive, for any length of time. The invalid who is dying for nutrition, is always intensely restless as a natural means of getting that nutrition, and the feebler the circulation, the greater the effort of the muscular system to aid it by continual change of position. Every change brings pressure upon new vessels and permits relaxation at other points; hence by motion we have a continual contraction and relaxation going on throughout the organism as the proper means of urging the blood forward, and so enabling it to perform its functions.

Thus we see that the two great means of circulating the blood, and so performing the great and all-important functions of life, are described as, first, alternate contraction and relaxation of the vessels which convey the blood as the result of pressure, and the letting up of pressure, through motion; and second, the expansion of the fluid itself as the result of heat. In general terms, therefore, it will be seen that *heat in the system*, and *exercise of the organs*, are the appropriate means of invigorating the circulation, and so developing nutrition, with all its wonderful results, the capacity to do, to think, to labor. But heat is generated only by circulation, as nutrition is improved by circulation, and hence we can hardly rely upon it as a means of improving this function. External heat, that is, heat supplied from without, relaxes the blood vessels at the same time that it expands the blood, and hence little gain is had in the way of improving circulation in general, by heating the body from without; though circulation may be balanced by this means with great success, as will be seen hereafter.

Some philosophers on this subject, however, advise the use of heating and stimulating foods as a means of developing strength and vigor. It is true that the immediate effect is an increase of the force of the circulation, and a temporary improvement of nutrition, and possibly while the person remains in good health there will be no particular objection to

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the plan, except that it excites unduly the organism, and so causes it to expend power faster than it makes it. To stuff a man with any substances, or to feed him with exciting or stimulating foods, is to cause great expenditure of force, and get correspondingly increased function, but after a time the force becomes exhausted and the function diminished. But even this cannot be said to be feasible in the case of persons who are already in ill health.

Nor can indiscriminate exercise which tends to increase the force of the general circulation very considerably, be admitted for invalids. In this respect we must make a decided difference between the man in health and the man who is diseased. The one can be pressed, worked, exercised, and by these means made to develop in vigor, while the other is only weakened still further by indiscriminate exercise or work. All experience has proved this to be true, for while the laborer grows strong by handling the axe, the pick, and the shovel, the invalid grows weak as the result of the same exercise. While one person's brain develops and becomes vigorous as the result of study, another's is still further enfeebled, until total incapacity follows.

This difference we propose to explain, and to show how it is that a given exercise may be beneficial to one person while positively injurious to another; that ordinary exercise, labor, gymnastics, lifting, and various plans that have been in vogue, have proved effectual to persons not actually diseased, while they have greatly injured persons who have been diseased. The explanation is found in this way: In a person in health the blood vessels are sufficiently strong to maintain their normal size, and so, as pressure is brought to bear upon the circulating fluid, it must circulate. If we bring a force from behind, the fluid must move onward as long as the vessels maintain their normal caliber. But in disease it is a well-known fact that these become stretched, engorged, congested, and so when we bring pressure upon the circulation in general, these congested vessels become more relaxed or congested, and so the difficulty is increased rather than diminished. If the pipes that convey the steam, or in the matter of the circulation, that convey the vapor, would never stretch or burst, we might add steam to an unlimited amount; but after a certain pressure has been attained, any increase is liable to burst, or at least, to stretch the vessels, and if the vessels are already stretched and weakened as the result of pressure, to increase the pressure is but to augment the difficulty.

What is needed, therefore, in the treatment of invalids, is not to increase the general force of the circulation, either by general exercise, by baths, by stimulating food, or medicines, or any other appliances, but to increase the force of circulation in certain points where there is a deficiency of blood, while at the same time the force is reduced at the points where there is too much blood. Unbalanced circulation is the ever present condition in disease. There is too much blood at some points, and too little at other points. The vessels are too large and relaxed here, while they are small and contracted elsewhere, and the true principle of treatment is to induce a greater flow into the contracted vessels, so as to fill them to their normal point; while the blood is correspondingly withdrawn from the relaxed, and congested vessels. In every case of nervous debility there is an excess of blood in the brain and general nervous centers, while there is a deficiency in the surface and extremities. This is indeed the condition in the great majority of diseases, and hence appliances should be used which shall withdraw the blood to the surface and extremities, and away from these congested and overtaxed organs. To stimulate a man's nervous system by the use of stimulants, tonics, narcotics, or by highly seasoned and concentrated foods, is to augment the difficulty; while, on the other hand, to apply such means as we shall indicate, to the surface and extremities of the body, while the interior and congested organs are kept as quiet and easy, and as little taxed as possible, is to remedy this difficulty in very wonderful degree.

The general principle, therefore, of balancing the circulation, and consequently of improving the nutrition throughout the organism, is by contraction and relaxation of vessels; by contraction of a part reducing the quantity of blood therein, and by relaxation increasing the quantity. If a part is congested, it is right and proper to induce a contraction of the blood vessels therein, while the part which suffers from want of blood, should have its blood vessels relaxed, so that the flow shall be increased therein; for to increase the flow of blood into one part of the organism is sure to reduce it in some other part, and upon this principle congestions and inflammations may be relieved with great certainty indeed. Congestion or inflammation of brain, of lungs, of liver, of stomach, or kidneys, is always to be relieved; first, by heating and consequently relaxing the blood vessels in the extremities and surface of the body, and by applying cold applications to the congested parts, if that be possible. I have relieved the most serious case of congestion of lungs, where the patient was reduced to the utmost feebleness and threatened with sudden death, by the application of the hot bath, followed with manipulations upon the surface and extremities. Placing the patient in the hot bath for five minutes, relaxed the vessels of the extremities, causing the blood to flow therein; then rubbing him dry and placing him in bed, with one man at each arm and one at each leg, giving thorough manipulations, the blood was so withdrawn from the lungs that entire freedom of action was restored. In five minutes the patient was in a high fever, in five minutes more in a profuse perspiration; he went to sleep, and in the morning was as well as ever.

Hemorrhage from the lungs, from nose, from throat, apoplexy, often paralysis, as well as all forms of inflammation, yield to this treatment with surprising rapidity. For restoring circulation in a part, without reference particularly to the amount of blood therein, we use, in acute cases, alternate hot and cold applications; in case of inflammations and congestions, especially of the extremities, these are found wonderfully effective. The hot relaxes and soothes, while the cold being suddenly applied, contracts the vessels correspondingly and urges the blood forward. Where there is pain and suffering this process is of inestimable value. If to the trunk of the body, we apply flannel cloths, four thicknesses, wrung out of hot water, laid upon the part and covered with dry flannel cloths to keep the heat in, leave it on five minutes, and then immediately follow with a linen cloth wrung out of cold water. If the treatment is to be applied to a limb, say to the foot or ankle, immerse it in hot water, as hot as can be borne, for five minutes; then follow by pouring on cold water; and repeat the operation for fifteen or twenty minutes, when most excellent results will be obtained. Sprains and bruises will yield to this treatment with most surprising rapidity. Indeed, I feel prepared to challenge the world for a plan of relieving inflammation, pain or general weakness of a sprained or bruised part, equal to alternate applications of hot and cold water. In congestion of internal organs, the hot fomentations and cool compresses described above, is the proper treatment. These plans, however, are adapted to treatment of acute cases, where the vigor of the patient will admit of vigorous treatment. But there is one thing to be remembered in this connection, namely: that the alternate application of hot and cold water to a part taxes very seriously the vitality of it, and where there is not much vitality to spare, the treatment must be used cautiously.

In acute disease, water-cure is one of the grandest discoveries of the age. Water is a short, quick and easy plan of effecting results, and even if it is exhaustive when continued in excessive degree, it is nevertheless indicated in acute diseases, where results must be quickly obtained. In the treatment of chronic diseases, however, we must rely upon other influences than the use of water. A chronic disease is one which has been upon the patient for a considerable length of time, and the time required to effect a cure is generally in ratio to the time that the patient has been affected; and hence an exhaustive

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plan of treatment cannot for a moment be admitted. Chronic disease itself means depletion of vitality, and hence no depleting treatment can be followed. The patient is already reduced, enfeebled by the existence of his disease, or by the treatment which has made him a chronic invalid; he must be relieved by plans which shall build up and recuperate his vital resources, rather than reduce them. But such a plan we have in the movement cure. The water-cure in the treatment of acute cases is generally indicated, but we must rely upon less active agencies, that are recuperative in their nature, in chronic diseases.

Motion, either as the result of the patient's own action, or supplied by the hand of another, is the grandest means that the world has ever discovered for improving circulation, and consequent nutrition, in the feeble invalid. The movement cure combines the principles and practice of motion cure in the most admirable manner. Massage, that which is being employed by some old school physicians in the treatment of chronic invalids, is an admirable means of developing nutrition throughout the organism. By massage we mean manipulations, pressure upon the flesh and the letting up of pressure, alternate contraction and relaxation of the blood vessels, which, by circulating the blood, cleanses the parts and improves their nutrition. I would take a human body, vile with humors and putrifying with sores, and cleanse it just as a man would cleanse a dirty sponge. He would manipulate it in clean water, or any other medium which will carry away the impurities. The blood is the medium for carrying out the impurities of the organism, and the flesh is the sponge which is to be manipulated. If this is done judiciously, we get the most marvelously beneficial results.

Of course, an important matter is to be considered; namely, that the kind of manipulations, or the kind of movements to be administered to the patient, depends upon the conditions of the patient. Whoever prescribes these movements or exercises should know just what parts are congested, and what parts are suffering from want of blood, and should know how to direct the energies to the proper distribution of it. For want of knowledge, injury might result from motion rather than benefit. Indiscriminate exercise is to be avoided. Gymnastics, lifting, ordinary labor, are seldom effective in the treatment of invalids, because they cannot be prescribed and administered to suit each particular case, and hence the importance of movement-cure, which in the hands of competent administrators produces results scarcely equaled within the range of medical practice.

But not all who advocate or apply movements understand the true principles. There are some who, knowing nothing of these, tell us to administer our movements directly to the diseased part, the part which is already congested and over-exercised. Such a one thereby proves his total ignorance of the subject. To exercise a diseased part is to increase the congestion of it, and the consequent weakness; while to exercise the surrounding portions, in such way as to withdraw the blood from the point, is to relieve the congestion, and consequently the disease.

The nutritive cure undertakes to apply, upon fundamentally correct principles, principles which belong to it alone. the water-cure, the movement-cure, sun-bathing, diet-cure, electricity, mental-cure, rest-cure, etc., and by doing so improves the circulation, and consequently nutrition of the patient's organism, thus building up his organs and restoring him to vigorous health. I would take a chronic invalid, reduced to feebleness, starving for want of blood, nervous for want of nutrition, restless, incompetent, and restore such a one to vigor by these processes. So I would administer from one to three baths per week of warm or tepid water, for cleanliness, followed by thorough rubbing. I would apply manipulations to the extremities and surface, say to the feet, legs, hands, arms, daily, whereby to increase the activity of the circulation. I would apply massage, or rubbings, three or four times a week.

The plan of rubbing which we recommend is quite different from that which is often advised by physicians. Some say that light, brisk rubbing to the surface of the body, which shall generate electricity by friction, etc., is the proper kind. Such a physician does not recognize the principles of the nutritive-cure. The rubbing which we administer is that which presses and squeezes the whole flesh of the body, say one limb at a time, the attendant grasping the arm near the shoulder in both hands, and squeezing the flesh, and immediately letting up the pressure. Follow that operation along down the arm to the hand, performing it thoroughly, and quite a considerable increase of blood in the part will be the result, and a consequent decrease of the blood at some congested point. Take the other arm the same way, then the legs, rub the chest and abdomen thoroughly, and particularly along the muscles of the spine should the flesh be grasped in the hand, and squeezed and rubbed. Such a process will do more to improving circulation in the surface, and relieving internal congestion, without at the same time exhausting the patient's vital resources, than any other plan with which I am acquainted. We have no faith in the processes of stimulation, so common with invalids, because we believe those processes increase congestions and so reduce circulation instead of improving it.

Nor do we believe in the stuffing cure, even though we do have faith in the nutritive processes, for stuffing too often reduces circulation rather than improves it. But any process which will improve circulation in a certain case is a process which tends to building up the vital system and restoring health. Ill-balanced circulation is the condition in every case of disease. Balanced circulation always represents health. Faulty nutrition is not for want of food, because faulty nutrition occurs in the veriest gluttons sometimes, but faulty nutrition is for want of circulation. All nutrition takes place in the circulation and corresponds to it, and to improve the one is to improve the other. We propose always to restore a patient's health through restoring his nutrition and his circulation, and that we have been successful the facts have thoroughly demonstrated.

But my time is growing short; I would like to dwell more fully upon this matter, but must defer to some more convenient season. I can assure you that the grand principles of health are wrapped up in this idea of improving circulation as the means of improving nutrition. The nutritive-cure is not a myth. It did not originate in the imagination of any man, nor is it pretended to be carried on while results are not obtained. Out of nutrition comes all strength of body and mind, all capacity for labor. It is everything to every man. The child grows into manhood through processes of nutrition, dependent upon circulation. The man is active and vigorous and successful in life just to the degree that he has good circulation, and consequently good nutrition. The lawyer who wins his case by force of intellect is the man who has abundance of good blood circulating equally and freely through his organism. The minister who sets forth the noblest ideas, entrances his audiences it may be, or interests even the wild, the reckless, or thoughtless, is the man whose brain is well sustained through good nutrition as the result of good circulation. In fact, in all the departments of life, what a man is, and what he can do, depends upon the quality of his circulation and nutrition, and these matters when once understood, are so clearly within his control, that only the darkest ignorance upon these subjects can explain the wonderful incapacity that is among men. Failures, mental and physical, are everywhere to be beheld, like the leaves that strew the strand, all for the want of knowledge of a few of the simplest truths of life. Health is the highest condition of life, and it can be obtained in the highest degree by a little knowledge, care and wisdom in the application of the laws of health, and to this subject we commend our readers as one of the most important that can attract their attention. Our journal, THE LAWS OF HEALTH, is calculated to accomplish more for the world in this direction, than would at first appear on its face. We commend it, Ladies and Gentlemen, to your notice, and trust it will be of service to you both now and for many years to come.

WANTED!

At Drs. Walters' Mountain Park, good, healthy, vigorous workers, who will find a good home, good pay, and opportunity for improving in life to an extent seldom offered. We want a cook, or kitchen matron, and to a competent person who is either already skilled, or who is prepared to learn, good wages will be given.

We want young women also to work in kitchen, laundry, and chambers. Also, one or two young men who understand farming and gardening.

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THE LAWS OF HEALTH.

Health is the normal condition of man. Remove the cause and the effect will cease.

VOL. II. READING, PA., MARCH, 1880. No. 11.

Water;—Its Uses and Abuses.

BY ROBERT WALTER, M. D.

Water as a Beverage. Water, properly considered, is the only beverage, for all other beverages are but adulterated water. Whether it be wine or whisky, tea or coffee, this compound or the other, the fluid portions, those which serve the purpose of drink, are wholly water, the compound itself differing from pure water only because of the introduction of solid matter into it. It is then either poison or liquid food; and liquid food, of course, is sometimes desirable, and water as a constituent of food very important; but it is also well for us to distinguish between food and drink. Thirst is the desire for drink, and the latter should be given, not the former; while hunger, on the other hand, is nature calling for food, which may be supplied diluted or otherwise.

Undoubtedly man is a drinking, animal, and thirst is the proper criterion for drink; but whether a man shall drink little or much is decided somewhat by his habits of life in other respects. He who indulges in heating or stimulating foods, uses irritating substances, or introduces into his system impurities which must be washed away, will have much thirst; while he whose food is bland, unstimulating and unirritating, and only such as the system needs, will not require drink in as great degree, and hence will have little thirst. Some persons, indeed, have succeeded in living wholly without drinking, while others are in the habit of drinking every half hour, and the difference is explained on the above principles. All foods contain water in some degree, and among the more wholesome foods, water is the chief constituent. Vegetables and fruits particularly, are largely water, and if eaten in abundance, without the usual condiments or spices, will supply the needs of the system in this respect; but whoever drinks tea, coffee, alcoholic liquors, uses tobacco, or spices, or indeed, common salt in great degree, will require to use water very freely whereby to dilute these substances, and carry them out of the system; while he who eats nothing but what the system needs, and then of food in the more natural combinations, will drink but little. Thirst, then, is nature calling for water, and it should ordinarily be gratified, while at the same time we would advise all persons to abstain from those habits of life which induce great thirst; for water, though a necessary constituent of the human organism, requires vitality for its use. He who drinks much must tax the skin and kidneys, as well as the other organs, in carrying out of the system the impurities that necessitate the water, while he who drinks little, will save so much strength that would otherwise be foolishly appropriated.

But thirst should not always be gratified. An inflamed condition of the stomach will often induce excessive thirst, which is frequently aggravated by the use of water, especially cold water. During the heated term many persons, having an "inward fever," drink excessively, only to be tormented still more with a craving thirst. In such a case let the person abstain from drink, or if he drinks at all, let it be of water of a mild temperature, with perhaps a little lemon juice in it. Pouring cold water over the wrists, will often cool the person and reduce the thirst.

TEMPERATURE OF BEVERAGES.

A few years ago the people were greatly excited over the use of cold water for drink, the water-cure advocates insisting that nothing else was proper. The notion has about exhausted itself. All experience proves that cold water is an irritant to the digestive organs, especially if used freely and of a low temperature. Ice water should never be employed. It only temporarily relieves the thirst, while it permanently increases the conditions which induce the thirst. Spring water of the ordinary temperature is best suited for all seasons of the year, to the person in health; but if a dyspeptic, suffering with inflamed stomach, gastric irritation or deranged liver, hot water is frequently to be preferred to cold water. Many an invalid will be chilled by the latter, while he will be warmed up and his circulation decidedly improved by the former. The stomach will be soothed by the warm, while it will be irritated by the cold, so that in the one case dyspeptic symptoms are allayed, while in the other they will be aggravated. To increase appetite by drinking cold water, is on the same principle as increasing it by taking tonics. Irritation of the membranes of the stomach is the effect of the cold or medicine, and the cause of the appetite, and irritation is always to be avoided.

TIMES FOR DRINKING.

On rising in the morning a glass of water is serviceable to people in ordinary health, and should usually be taken as it comes from the spring. If the person be feeble and dyspeptic, it may be hot to warm up and liberate the nervous forces, and to wash away any offending matter from the stomach. Where the tongue is much coated it is especially useful. At any other time when the stomach is empty and there is thirst, the drinking of water is appropriate, unless it be at or immediately before meals. Drinking at or immediately preceding a meal is always injurious. When a person eats, his stomach should be engaged in secreting the gastric juice, and mingling it with the food eaten, in order to good digestion, and hence no other function should be required of it at the same time. To introduce water into the stomach while the gastric juice is being poured into its cavity, is either to dilute the gastric juice and so reduce its effects upon the food, or to interfere with its secretion by calling for a contrary action of the stomach in the absorption of fluid. To ask an organ to pour out gastric juice into its cavity, while at the same time it is engaged in absorbing fluid therefrom, is to impose if not an impossible, certainly a difficult task.

There is still another objection to drinking at meals; namely, that the habit of washing the food down without proper mastication soon becomes established, the fluid drunk supplying the place of the saliva which should be mingled with the food as an important element of digestion. The starch and sugar of food, comprising the greater part of all vegetable foods, are digested by the saliva, and not by the gastric juice, and hence to wash these substances beyond the reach of saliva, is to interfere very decidedly with the digestive processes.

But if drink must be had at meals let it not be a cold drink. A glass of cold water is to many persons worse than a cup of hot tea, and both are positively injurious. A cup of hot water with a little milk in it may be admissible in given cases, but far better for the person to habituate himself to eating his food dry, so that it shall be thoroughly masticated and mingled with the juices of digestion. No horseman would give his horse a bucket of cold water to drink out of, while at the same time he was eating his oats, or if he did, the horse would have more sense than the master, for he would not drink it.

The subjects of tea, coffee, alcoholic beverages, the use of spices, common salt, etc., have been discussed elsewhere, and need not occupy our atttention at this time.

Scrofula.—No. 23.

BY J. A. TENNEY, M. D.

Bronchial Consumption. In this form of consumption the bronchial tubes are the seat of inflammation, instead of the air-cells. It is sometimes caused by ner-

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vous debility alone, and sometimes by inhaling irritating foreign substances. In either case there is chronic inflammation of the bronchial tubes, which gives rise to an exudation of mucus, causing more or less expectoration. The inflammation tends to increase to that degree as to produce slow disorganization or ulceration. This produces mischief by perforating the bronchial veins, producing hemorrhages and consequent debility. The mode of death in fatal cases is from weakness, or to use a medical term, *asthenia*.

Bronchial consumption is quite prevalent among miners, stone cutters, and operatives in cotton mills. The dust arising from broken stone, coal, etc., lodges upon the mucous membrane of the bronchia, as also does the clay used in sizing warps in cotton mills. This latter substance, we are happy to say, is not used in mills in this country, but is confined to English manufacturing places. All these irritants operate like sand applied to an inflamed surface, corroding and fretting the part until ulceration takes place.

The symptoms attending this form of pulmonary disease are different in some respects from tuberculous consumption; but in other particulars they are quite similar. In the tuberculous form there is little expectoration at first, whereas in bronchial consumption the quantity of mucus raised is profuse from the outset Some one has made this distinction between the two forms in this way: In one, digestion seems to be fair, while assimilation is very imperfect, and in the other, assimilation is better than digestion. The latter condition goes with the bronchial affection.

There is often a diminution of sound heard in the air-cells upon applying the ear to the chest, which is sometimes caused by closure of the small bronchial tubes with mucus, and sometimes arises from the inability of the weakened cells to open and close normally. If one side of the chest is affected more than the other, the lung that is free will endeavor to do the work of both, hence the air cells in this lung will be enlarged, and an increased sound will be heard, like air rushing into large cavities,—presenting symptoms in both lungs precisely like what is found where one lung is filled with tubercles. Then tubercles may be deposited in the advanced stage of the disease, thus making breathing more difficult, and recovery more uncertain. In the worst cases, there is progressive emaciation, hectic fever, night sweats, expectoration of muco-purulent matter, increasing in quantity and offensiveness, until such destruction of the lung substance has taken place, that they fail to purify the blood, and the patient dies from weakness, as before stated.

This form of consumption may often be cured, if rightly treated in its first stages. It is a disease of debility, and hence should be met with building-up processes. Entire freedom, from care, living in an equable climate, and the judicious application of all the hygienic agencies, are of the first importance. Movements rightly applied to the extremities, relieve the lungs of their congestion, and greatly assist the curative process. Care should be taken not to give too much water treatment. One general bath a week is enough in most cases, and often it is best to make this a hand bath, and give it to the patient in bed. The chest pack is often serviceable to cool the irritated lungs, and reduce the inflammation. It may be applied by means of a garment made like a jacket, which should be wet in tepid water, and another dry one put on over it; then the patient should be covered up in bed for half an hour or more. This may be given on alternate days. The same may be said of diet in this disease as in all scrofulous affections, and the general treatment should be similar, so as to build up the general health.

Morphinism.

It appears from statistics that the use of opium in this country is greatly on the increase. A statement from the United States Treasury Department shows that the amount of opium imported for the ten years ending with 1877, exceeded by 2,057,080 pounds, or nearly 200 per cent., the amount imported for the ten years ending with 1859. How much of this amount is used by physicians' prescriptions, and what proportion is used independently, it is difficult to determine, but there is every reason to believe that the habit of taking morphine independently and secretly is largely on the increase. An effort was recently made in Michigan to learn how many persons are addicted to the use of the drug, by sending circulars of inquiry to eminent physicians. 96 prominent physicians in the state reported 1,313 habitual morphine eaters within the range of their practice, making an average of more than 13 to each physician.

The consequences of morphinism are worse than those arising from the use of tobacco or of intoxicating liquors. It is well-known that it is harder to give up the use of tobacco than to break off the habit of drinking ardent spirits, but to get rid of the habit of morphinism is harder than either. It does not cause insane frenzy like alcohol, but it is more effectual in blunting the mental and moral power of the unfortunate victim. It produces apathy, restlessness, and a feeling of degradation, which leads the unfortunate into deception to cover his fault. A loss of self-respect follows, and he becomes lost to his friends and to society. If the drug is suddenly withdrawn, the patient has diarrhœa, hallucinations, coldness of the surface, sleeplessness, great nervousness, headaches, caused by a distension of the cranial blood vessels from absence of morphia, and even mania.

The habit cannot well be cured except by the co-operation of the patient with his physician. If he is aware of his danger, and is ready to make the sacrifice necessary to be freed from its cause, the poison may gradually be withdrawn. The amount of suffering experienced will depend upon the quantity of morphia used daily. If the person has taken half a dram or more, the suffering arising from its discontinuance must necessarily be intense if a long time is not taken for its complete withdrawal; but if only a few grains have been used every day, it will not require so long a time to overcome the habit. If one is very badly addicted to the practice, a cure cannot be made in much less time than six months; but the time will vary with the amount used and the constitution of the patient.

Pain in the head, and other disturbances connected with giving up the drug, may be much relieved by hot baths; but mental influences are the most to be relied upon, for everything depends upon being able to gain the patient's confidence, and to successfully appeal to his will-power and conscience. If he is not so far under the power of the poison as to be lost to a sense of danger, and can be made to feel that he is not lowered in the estimation of his friends, there is hope that a permanent cure can be effected.

Spring Fever.

The time of year is rapidly approaching when almost everybody will suffer for a short period from physical depression, called by some "spring fever." The condition is one of lassitude, the person affected feeling utterly good for nothing for a longer or shorter time. The whole difficulty will pass off if nothing whatever is done for it, but the question naturally arises, is it possible to avert this disagreeable depression? We think it is both possible and practicable.

All stimulation is followed by a corresponding depression. If a man takes a considerable quantity of whisky, brandy, or any other alcoholic stimulant, he will feel greatly exhilarated for a time, when there will follow a tired, gone feeling, that will be as disagreeable as the stimulation was pleasant. If a man has a large brain, and pushes himself into work, he will after a while come to a condition in which he does not get tired, and the first he knows of his overdoing will be a general collapse of his whole nervous power. The stimulation of cold weather is precisely similar to these. It it so constant that the period of depression does not appear until the warmth of spring relaxes the whole system. In winter, people eat and dispose of a larger quantity of food than in summer, and every organ

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in the body has increased activity. Most people disregard the opening of spring, as far as the quantity of their food is concerned, and they go blindly on, as though they could sustain all the digestive activity of midwinter. If they would exercise reason a little, the lassitude of spring-time would be very slight, if it were felt at all. Let them be careful to eat at least a third less when the first warm spring weather comes; then let them take less than two-thirds of their accustomed amount of exercise. In this way, the system will be free to accommodate itself to the new conditions, and all discomfort will be averted. Sudden changes cause vital disturbance, but our vitality is able to fill up the vacancy produced by all changes, provided we favor the system a little in other directions while such changes are being made. Relieve the organism from digestive and muscular taxation, and no discomfort will be experienced.

Dyspepsia and Liver Complaint.

These are a very unpleasant pair to deal with, and yet almost as common as invalids. A correspondent asks our advice in the following case, and as it is a sample of thousands of cases, we give our treatment for the benefit of our readers.

He says: "I am 44 years of age, a farmer, dark complexion, medium height, lived in an ague country for 14 years, had the ague several times, and a year ago last September was attacked with typhoid malarial fever. Did not eat for seven weeks, reduced to a skeleton, took a good deal of medicine, and slowly recovered, but have not got entirely well. After recovering from the fever he discovers a sore place on his stomach, sometimes a tickling feeling low down the breast, much troubled with cold hands and feet, wind in the bowels, and the more he eats the worse he feels. As appetite improves he is apt to eat too much, head feels heavy and dull, sleep disturbed, bowels regular, pulse 70, has taken no medicine for a year, except some botanic medicine, which made him worse."

The question is at once suggested in this case, as in the hundreds of others with which we have to deal, namely: Is there a cure for a disease while the cause remains; and we are compelled to the assertion that there is not. Though this is true, it is nevertheless equally true, that while the principal cause may remain, many collateral causes may be removed and comparative health be restored, for the vitality in an organism can maintain its normal state and keep the organism in vigorous functions in spite of some causes of disease. The malaria in this case has much to do with this man's sickness; but if it were the only cause we believe he might live healthfully in spite of it. Bad habits of eating and drinking and working have, no doubt, all contributed to making him an invalid, and if he must live in the malarious district, let him be very particular in all other respects. I would advise that he get out of the malarious country, however, for once having become broken down by having breathed foul air, it will be difficult for him to recover his wonted vigor while he continues to breathe that air. But whether there or elsewhere, let him be particularly careful as to the water he uses. Water often has as much to do with inducing ague as has air. Stagnant well water should not be used. Cistern water will become unwholesome if allowed to stand, and hence in a malarious country there is no water that is really fit to use, but pure soft spring water, which is always being renewed. Next to soft spring water is filtered rain water; I mean, filtered just as it is used.

Next of importance is the food that should be eaten. Pork is always an abomination, and particularly to a person living in a malarious district. So are fats, greases, sugar, etc. All these tend to obstruct the liver in the same manner as does the malaria, and so, in conjunction with it, are likely to produce dangerous diseases. The person should eat abundantly of fresh fruits, should eat moderately of fresh meat, while Graham flour, beans, peas, vegetables, etc., should represent his staff of life. Such a person should be very careful not to overwork, for to overwork the general system is to weaken the particular organs, and so render one's self liable to attacks of disease. Sleep in great abundance is important. The body should be properly and evenly clothed, the feet and hands being always kept warm. So much is properly said for hygiene in general.

This man suffers from stomach and liver derangement consequent upon malaria, his bad habits of eating and drinking, and upon the medicine he has taken. The soreness is in the stomach or duodenum, and indicates an inflammation of its mucous membrane. The liver may be somewhat enlarged, also, and tender. I should lay warm fomentations over these twice a week. The fomentation consists of flannel cloth, four thicknesses, wrung out of hot water, and laid over the stomach and liver, and covered nicely with a blanket to keep in the heat. As often as the cloth becomes cool, renew it, say every five minutes, placing it on again quite hot. After the fomentation has been upon the abdomen for fifteen minutes, let the patient have the gown bath, described in a late number of the LAWS OF HEALTH, or a full bath, or a sponge bath, the bath being given in a warm room by an attendant, and the patient being well rubbed. The feet should always be thoroughly warm before taking the fomentation. While giving the fomentation, the patient should lie on the bed with a warm brick to the feet, and a cold wet towel on the head. After the bath let the patient be rubbed dry and go to bed for an hour or so, or if it is given in the evening, for the night. A sitz bath once a week, such as is described in previous numbers of the LAWS OF HEALTH, is also desirable for such a case. It were best to take these baths in the middle of the forenoon, but if this cannot be done, they may be taken in the evening just before retiring, provided the patient is not tired with his day's duties. We advise the use of two meals a day, say at seven in the morning and two in the afternoon, with abstinence from all tea, coffee, sweets, and highly seasoned foods. Tobacco, alcohol and medicines must be relinquished. Such a person should be careful not to overwork, nor to indulge in violent passions in any respect. Should be careful, prudent and moderate in all his habits. Kneadings and manipulations of the bowels every day are desirable. It is also frequently serviceable to wear a wet abdominal bandage every night, covered with a dry one. The abdominal bandage is described elsewhere. All persons, sick and well, should see to it that the feet are kept warm, and the head cool, and the bowels open. Freedom from anxious care is an important hygienic consideration. Whoever will follow out these plans for overcoming dyspepsia, will have reason to be satisfied, I am sure, with the results.

The Abdominal Bandage.

This is a form of compress which is very serviceable in the great majority of cases of abdominal disease. In dyspepsia, liver complaint, inflammation of bowels, constipation, uterine ailments, and, indeed, in fevers of all kinds, the wet abdominal bandage serves an excellent purpose. The bandage, we say, is a form of compress, and the compress is simply linen cloth, four thickness, wrung out of water, cool or warm, and placed over the part, covered with a dry cotton or woolen bandage to keep it warm. The abdominal bandage is made out of sheet linen about one and three-fourths yards long by eighteen inches wide, doubled and sewed, so as to make a bandage about 9 inches wide by 63 inches long, and after being wrung out of warm or tepid water, placed twice around the middle of the body, covered by a dry cotton bandage of the same size and style. These bandages go around the body, covering about nine to twelve inches in width, and soften, soak and and cool the parts which are covered thereby. They may be worn every night to advantage by the majority of people who suffer from dyspepsia, or bowel or uterine troubles. There is one thing always to be said in favor of them, they will not do anybody any harm even if they do not do good, unless very injudiciously employed. They should not be worn if the person is persistently chilly from their use.

ANY person wishing information concerning a hygienic colony that will be established, probably on the Cumberland table lands of Tennessee, one of the garden spots of the world, will confer a favor upon others interested in the same by addressing

S. A. VIBBERT, M. D., *Sec.*,
Boston, Mass.

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Monthly, 50 Cents a Year.

ROBERT WALTER, M. D.,
Editor & Publisher.

J. A. TENNEY, M. D.,
Associate Editor.

☞ All communications should be addressed to Wernersville, near Reading, Pa., the residence of the editor.

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OUR PLATFORM.

1. The vital power in the organism is the only healing power.
2. The rapidity and the certainty of cure depend as much upon the degree of vitality—the amount and quality of the vital force—as upon the distribution of it.
3. The symptoms may be changed and the disease often cured by reducing the quality or degree of this force, on the one hand, or by increasing it on the other.
4. Bleeding, purging stimulating, and all drug processes, as also the Water and Diet cures, as usually employed, cure on the former plan,—the plan of depleting the system.
5. The Nutritive-cure, on the other hand, cures only by building up, invigorating, and purifying the organism.
6. The true way to cure invalids therefore, is to distribute the vital force to its appropriate channels by means which shall increase, but never reduce the vital vigor.
7. This is done by the use of normal health agencies, which while equalizing the circulation, in which all nutrition takes place increases the production or manufacture of vitality, and reduces expenditure.
8. The breathing, digestive and circulatory systems comprise the organs of manufacture; while the brain, and nervous systems comprise the organs of expenditure.
9. The organs of manufacture are largely muscular, and depend for the performance of their functions on muscular contraction and relaxation; while
10. The organs of expenditure are mostly nervous, and depletion corresponds to the excitability and activity of the nervous systems.
11. All processes are to be employed to invigorate the muscular systems, special and general, while at the same time they tranquilize the brain and nervous systems, thus producing quiet, content and rest.
12. The Nutritive-cure embraces these principles, and by representing a scientific combination of exercising, breathing, bathing, eating, sleeping, resting, clothing, &c., is the only scientific system of medication in existence.

The Food Question.

The importance of this question has heretofore deterred us from entering upon a full discussion of it, because we felt our time and opportunities were not sufficient to do it justice; and even now, that we have commenced, we can only hope to sift out the leading ideas, and consider them as carefully as may be. The first great question which offers is, Which is the superior? a strict vegetarianism, or a diet composed of both vegetables and animal matters. The people in general believe in and practice the latter plan; but there is, nevertheless, an exceedingly enthusiastic minority, who are so convinced that the use of flesh meats as food is the basis of all human evil, that they are very urgent and positive in proclaiming their belief and practice, and hence naturally ask for a consideration of their arguments, if not an acceptance of their theories. It is not wonderful, therefore, that our last article on this question should have brought out objections and criticisms, and that we should be appealed to, to allow a hearing. This we are willing to accord. We believe in free speech, and that the cause of health reform can but be benefited by hearing all sides. Our space is limited, however, and while we are anxious that all arguments shall be sifted, we are compelled to restrict communications as to length. Well written articles from the pen of any competent person, on this subject, which are not more than a column of our paper in length, deserve insertion, and Dr. Ryder, of Toronto, Ontario, as the champion of vegetarianism, shall have a full and free hearing if he can come within the limits of our space. His present article leads the discussion, though we give it in part only, the whole of it being too lengthy, and covering too much and too diffuse ground for insertion at this time, but as the lawyer would say, the balance may become admissible further on. Our answer appears immediately following, and this plan will be adhered to from month to month if Dr. Ryder desires. Brevity is of great importance. Our object is not to hear ourselves talk, but to search out the truth by careful measures, even if slowly and little at a time. We desire that perfect fairness shall be had; that personality shall be scrupulously avoided; and truth sought without reference to men or methods of presentation.

Whooping Cough.

Dr. Henry A. Mott, the well-known chemist, recently delivered a lecture at the Academy of Sciences in New York, in which he advanced the idea that this important disease is caused by parasites burrowing beneath the mucous membrane of the throat and bronchial tubes. He comes to this conclusion because fungi are detected in the expectorated mucus of those affected, when it is examined under a microscope. He holds that the disease is carried by the inhalation of spores, which become attached to the under side of the tongue, where the mucous membrane is thin and soft, and from this region they germinate and spread to the larynx, where the difficulty becomes fully established. He infers that a medicine that will kill these spores will cure the disease, and recommends quinine, taken in the form of dry powder upon the tongue, thinking to get rid of the offending spores by poisoning them to death.

There is nothing in the created world so easy as to raise hypotheses and to act upon them; and as the profession in general has so little to guide its course except hypotheses, there is no other way for it to plod along but to keep experimenting. But we leave it to the candid reader to judge whether such assumptions will bear questioning.

In the first place, how does the doctor know that the fungi are not the effect of the disease, instead of its cause? It is certain that fungus growth is often an effect of disease, as in most forms of cancer, for no one will contend that all cancers are produced from the surface of the body. Fungi are also present in the membrane formed in the throat in diphtheria; but sometimes people die from this disease before any symptoms of throat difficulty become prominent. The evidence is decidedly against the notion that such diseases have a local origin.

But if his theory is true, how can he justify the use of quinine in the manner mentioned? It is well known that if any part of the body is moistened and quinine is rubbed upon it, the drug will be absorbed into the blood. As the tongue is very moist, from necessity, it will absorb quinine very rapidly. But if it is taken upon the tongue, how can it kill spores collected in the bronchial tubes? Does it spread from the tongue to the entire mucous membrane, and so drive out the offenders, as the singed rat was said to drive out all the vermin in a house, or does it accomplish the work by being absorbed into the blood first? Unfortunately, we are not assured that the disease has been shortened in duration, or diminished in severity, by this method.

It has been demonstrated that whooping cough can be cured in its first stages by purifying the blood. If children affected with it are taken from the low ground of towns and cities, where it is oftenest found, and placed upon high ground inland, when the cough first shows itself, a great many cases would be cured at once with no further treatment. A rare, dry atmosphere relieves the blood of its extra burden, and recovery takes place at once. If this fails, or if it is impracticable, then cleanliness, and all hygienic regulations should be observed, and let the disease run its course. Hot baths during the paroxysms of coughing to relax the system and promote depuration, are of great service. The bowels should be kept free, the greatest attention should be paid to ventilation, outdoor exercise, diet, etc. Under proper circumstances the duration of the disease will be short and tolerably free from suffering.

Displacements.

It is related of an eminent New York physician, that he was visited recently by a fashionable woman who wanted advice in relation to a complication of diseases. After relating her symptoms, the doctor asked to see her shoes. When he saw them, he said, "I cannot treat a patient who wears shoes with such heels as those," and bowed her out of his presence.

We think it will strike every intelligent practitioner of medicine, that if all physicians were thus particular in their selection of patients, very few women would be treated at the present time. There are few fashionable women who have not displacements of the bodily organs to an extent and in a manner tenfold worse than can be produced by any article ever worn upon the feet.

Twenty years ago, it was the custom of fashionable women to put on their hats before they did their corsets, because they knew that after their corsets were laced,

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they could not reach as high as their heads. In spite of the universal judgment of artists against deforming the feminine organization in this way, from an artistic point of view, and the opinions of physiologists against the practice, on the score of health, there is so little change in this matter that a professor of anatomy in a prominent medical college in New York recently called away some medical students from a female subject for dissection, saying, "You cannot tell anything about the proper location of the bodily organs in a female subject."

The practice of the majority of women is not less injurious than it was twenty years ago. If very tight corsets are worn, the waist naturally recoils or rebels against the compression as soon as they are taken off, so the waist is not permanently cramped, unless the corsets are worn all the time, day and night. But there is nothing in the world so sure to deform the waist as slight pressure, long continued. It takes the system unawares, in a sense,—so stealthily as not to provoke vital resistance; and as it is a law of organization to accommodate itself as far as possible to every kind of outside circumstance, the deformity becomes fixed. The chest is compressed, interfering with the most important function of the body, that of breathing and purifying the blood. The abdominal organs are forced downward into the pelvis, causing every variety of weakness and displacement incident to the female organization. It will not always accomplish the worst results in one generation, but the tendency to female weakness is thus transmitted to posterity. The ailments of many young women can be traced directly back to the sins of their parents as their cause. In the natural female form, there is no break in a perfect curve from the neck in front to the pelvis; and where any such break exists, whether it exists from the unnatural practice of compressing the waist, or as inherited deformity, it is a condition that gives rise to the most distressing and obstinate diseases.

Waste Heat Utilizer and Ventilator.

The new building is progressing, and now that the spring has arrived, we hope to push it to completion very rapidly. The new heaters have arrived and are being placed in position, and we are greatly pleased with the prospects of the most thorough ventilation and heating in our parlors. It is a matter of wonder how hygienic physicians succeed in curing sick people, while warming them with cast-iron stoves, and ventilating only through the open window; and yet hygienic treatment is proved to be successful, even when the conveniences are very unsatisfactory indeed. Since the Drs. Walter have built their institution, and heated and ventilated it on scientific principles, they have had a success in the treatment of sick people that has never been attained anywhere, and during the coming year our accommodations will be both enlarged and improved. Numerous persons have written for Mr. Silver's address, and hence, to save time and labor to all parties, we give it: L. B. Silver, City Hall, Cleveland, Ohio. The more we examine into this plan of heating and ventilating, the more satisfied are we that it is truly philosophical and practicable, and that while the expense is not great, the saving in fuel for the same amount of heat, will more than repay it in two years. Perfectly heated and ventilated rooms can now be had at less cost than half-heated ones.

Vegetarian or Mixed Diet.

Lisgar St., Toronto, Canada,
Feb. 14, 1880.

DR. WALTER:

Dear Sir:—Have read with much pleasure your article on "Food—What and How to Eat," in February number. I am also pleased with the candour as to the teachings of the Bible in this connection. Evidently, as you state, the inference is all in the direction that, so far as Adam and Eve were concerned, a purely vegetable diet was indicated. And whatever occurred afterwards to change the custom as to a choice of food must, I think, remain in doubt.

It is evident that man can live on a purely vegetable, a mixed, or a purely animal diet, and even on animals of a low order, such as scavengers; but the question that is of most interest to us is, What class of food is most conducive to man's interest as a moral, intellectual, social, and religious being?

If we observe the different nations of Europe, we notice that those that are in the habit of partaking of a mixed diet are the ones that are and have been engaged in warlike pursuits, and that they now constitute a vast battle-ground glistening with bayonets, as well as every other device for the destruction of each other in battle array.

Is this the state of affairs that God intends or desires at present, or is it simply permitted because he saw fit to constitute man a free agent? Allowing him to choose his own course, and, of course, to take the consequences, whatever they may be.

It is evident that previous to the medieval ages a much higher standard of intelligence obtained amongst the learned classes than we can boast of to-day in the departments to which they turned their attention. Especially was this the case in the sciences of astronomy, and physiology and hygiene. The terrible consequences of drug-medication and narcotic poisoning by opium, alcohol and tobacco were sedulously avoided; and how much of these have grown out of a flesh diet may be left for each one to consider for themselves.

I think it may be successfully affirmed that flesh as an article of diet is more or less stimulating, and it is generally considered that one stimulant leads to a desire for another of a more pronounced kind, and it does not require a very great stretch of imagination to suppose that an immoderate use of flesh would lead to an immoderate use of wine, and the old adage that when "wine is in, wit is out," may account for all the mischief that was entailed by that dark period—7th to 14th century.

Small beginnings sometimes have great endings, and it is important to know what the consequences are likely to be when we inaugurate a *new departure*. Moderate drinkers, from whose ranks the drunkards emanate, claim that a certain quantity of alcohol is an excellent thing; and that its immoderate use is all that is to be deplored; while those who are so situated as to be able to take in the whole situation, almost invariably conclude that the difficulty begins with the small quantity taken at first, which leads to a desire for more. In like manner, may not the difficulties that terminate in broken health, with those who are poor in constitutional vigor, have originated in the establishment of injudicious dietetic habits by those who were more vigorous? And with the latter result in a desire to rule over, not themselves, but their neighbors, which would lead to such persecutions as history records for the dark ages.

These are a few stray thoughts suggested by reading the article referred to; and, as the subject is one of deep interest to all, I trust it may be the means of elucidating further enquiry, and eventually the TRUTH.

Yours truly,

ISAIAH RYDER, M. D.

REPLY BY DR. WALTER.

There are four points attempted to be made in this article, and each is worthy of criticism:

First. The teachings of the Bible. The writer accepts with satisfaction its teachings as to the vegetarianism of Adam and Eve; but with a strange capacity for seeing but one side of the question, thinks that what the teachings of the Bible are in later times must still "remain in doubt." He is pleased with my candor in quoting so much as favors his side, but is not pleased at the quotations that favor the other side. When the Bible says, "Behold I have given you every herb bearing seed, which is upon the face of the earth, and every tree in which is the fruit of a tree, yielding seed; to you it shall be for meat," he responds with a hearty amen; but when in later times it also says, "Every moving thing that liveth shall be meat for you; even as the green herb have I given you all things," he thinks that nothing can be made out of the declaration, and so throws it by as worthless and immaterial. The practices of the Patriarchs, even when entertaining angels; of the Prophets; the feeding of the Children of Israel in the wilderness; the Mosaic law with reference to food; the practice of the Savior and the Apostles, and the teachings of the New Testament are not to be trusted as against his darling theory that flesh-meat is at the bottom of human evil.

Second. The nations of Europe partake of the mixed diet; and Europe is a vast battle-ground in consequence; which is quite as reasonable as to say, the present Czar of Russia has been a liberal and progressive monarch, and Nihilism has flourished correspondingly, or, Christianity was introduced into Rome in the first century, and Rome, the once proud mistress of the earth, falls into decay thereby. We have heretofore considered that war was the result of the ignorance, pride, ambition, jealousy, hate, natural to human life, and we have yet to learn that vegetarians do not possess these qualities of heart, as well as other mortals.

Third. The higher standard of intelligence displayed by the ancients, especially in the sciences of astronomy, physiology and hygiene. This is news to us. We have heretofore supposed that the great scientists and astronomers were Bacon, Newton, Herschel, Gallileo and Copernicus; the great physiologists were of even later times; the discoverers were Edison, Bell, Field, Franklin, Watts, Stephenson, Fulton, Harvey; and the hygienists? who were they, and who are they?

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"The terrible consequences of drug-medication, and narcotic poisoning by opium, alcohol, and tobacco, were sedulously avoided." Indeed! The avoidance of a thing presupposes a knowledge of its existence, and this is the first time that I have ever heard of the ancients being cognizant of the "terrible consequences" of these things; indeed, I had supposed that not only were "the consequences" unknown, but the substances themselves had not been discovered—saving alone alcohol and a very few drugs.

Fourth. Flesh-meats are the basis of all human evil; a supposed logical conclusion from the foregoing premises, but as these premises are doubtfully suggested, the further argument is on this wise: Flesh-meats are stimulating; one stimulant begets the desire for another, and hence the use of tea, coffee, tobacco, alcohol, opium and all the depressing passions and evil actions of human life. To be sure, he admits that the conclusions require a "stretch of the imagination," but not "a great stretch;" so that any one whose imagination is sufficiently elastic will not be seriously strained or suffer violence to person because of the stretch. We beg to dissent. We have already been wrenched by the effort. In a word, our friend attempts to prove too much; he soars too high into the realm of speculation; he is as smoothly logical as a vegetarian orator, who once upon a time, descanting on the beauties of a vegetable diet, delivered himself thus: "If this is not so, then it ought to be; and what ought to be, can be; what can be, may be; what may be, must be; what must be, will be; what will be, is."

Enough; our correspondent has not made a good beginning. He flies well, bnt he finds a difficulty in lighting. He is at home high up in the realms of speculation, but the hard, stubborn, unyielding facts of life are uncomfortably cold, and so he avoids them. We will be pleased to hear from him again, but trust he will be more careful in the selection of his facts, and more logical in the presentation of his arguments.

Questions Answered.

By Robt. Walter, M. D.

Question. What are the causes of cancer? Is it hereditary, and if so, can it be avoided by proper living? Is it curable? How does it begin?

Answer. Cancer is produced by mal-assimilation of food. Instead of being converted into tissue, some elements of food are converted into cancer cells. The reasons for this action are many: Improper food, unclean water, improper ventilation and disobedience of the laws of health in general. A tendency to the formation of cancer cells is inherited, and if the exciting causes are produced, cancer will be developed. Therefore, although a person may inherit a tendency to cancer, by living properly he may avoid the formation of it.

It is curable if not developed too far, and if treated in time. A cancer begins just as any other tumor, at first no distinctions are observed. But the difference between the growth of a cancer and a simple tumor is, there is more pain felt from a cancer, the pain being of a sharp, shooting character, but varies according to the kind of cancer. It also generally develops more rapidly than other tumors. There being three different kinds of cancer—encephaloid, schirrus and epithelial—and different subdivisions of them, according to external appearances, but all are essentially the same.

Question. I have considerable waste matter, especially on my nose, which I have to squeeze every day, and a good deal of white matter and small worms come out in the squeezing. What would you advise as a remedy for this? H. B.

Answer. I should squeeze away as long as there is anything to squeeze, but to prevent the production of this matter is the question, and to succeed in this respect requires something more than direct applications to the nose. What is needed is pure blood, and this can only be had by living healthfully. I should say that our friend is in a bad way, and that he requires a course of hygienic treatment to restore him to good conditions of health. If he were to syringe his nose with a weak solution of carbolic acid, I should think there would be benefit. Certainly it should be cleansed every day with some mild disinfectant; but, restore the general health as the only means of permanent cure.

Question. What hours do you consider best for taking meals where the party eats but twice a day?

Answer. From seven to eight in the morning and from two to three in the afternoon. The hours may be varied to suit the convenience of the party; from half-past seven in the morning, and two o'clock in the afternoon, are the hours which we adopt. Three o'clock we think rather late. Persons who are called away by business may have the breakfast earlier and dinner earlier, but if the dinner must be taken as early as 12 o'clock, it would be better to have the third meal, unless there should be conditions which positively contra-indicate it.

Question. I have been troubled with hives, and their intolerable itching causes serious inconvenience; can you tell me what causes them and what I must do to cure them? I am employed in a store where I am brought in daily contact with paints, varnishes, etc. Has this anything to do with their appearance? Last year I used buckwheat cakes with impunity; this winter I do not use any. I use neither tea, coffee, tobacco, or intoxicating drinks, and yet there may be errors in my diet. What shall I do? A. J.

Answer. No doubt you are suffering from an inactive liver, in connection with feeble stomach and bowels. The skin and kidneys are equally feeble, no doubt. The result is impure blood, and therefore an exceedingly irritable condition of the skin. You should eat hygienic food, drink only soft water, avoid the use of butter, sugar, molasses, salt and other spices, and breathe abundance of pure air. You should get Taylor's Movement Cure and practice its precepts. Should do what you can to develop the lungs, as well as invigorate stomach, bowels, and liver. A bath twice a week in tepid water, is important. Read The Laws of Health and follow out its teachings, and I think your conditions will improve.

Question. Is bread made with yeast or royal baking powder wholesome if eaten fresh? and if not, how should bread be made to be entirely wholesome when entirely fresh?

Answer. The raising of bread with yeast, and, I believe, with baking powder, produces carbonic acid, which is retained for some time within the bread, making it unwholesome if eaten while warm. Bread, to be wholesome when eaten entirely fresh, should be unleavened; that is, should not be raised or puffed up by any substance other than the steam which forms in baking. Take flour, mix it with cold water and drop it into a hot gem-pan, and put it into a hot oven, and it will be quite porous and spongy, as the result of the vaporization of the water; there is no other healthful way of raising bread, unless it be by pumping air into it, as in the aerated bread manufacture.

Question 2nd. Is the eating of fats, such as fat meat, butter, gravy or lard, essential to a healthy condition of the human system? If not, can it be used at all without injury to the system?

Answer. Every human organism requires proper constituents for the building up of its structure. Fats in the crude form, are, we believe, unnecessary, and if eaten in any decided degree tend to the obstruction of the circulation. The great evil of introducing into an organism a substance which it does not need, is that it acts as an obstruction, preventing the proper carrying on of the nutritive processes. Whoever eats fat meat, butter, gravy, in great degree, is liable to inflammatory diseases as the result of obstructions occurring in the capillary circulation. These substances also tend to the production of an undue amount of heat, and so to the excitement or stimulation of the nervous system, especially such parts as are connected with the base of the brain. Of course, the health of the party and the occupation in which he is engaged, has much to do in determining his diet. A strong, vigorous, hearty man, engaged in out-door occupations, where he is exposed continually, may eat fats in considerable degree, without seeming to suffer therefrom; while if the same diet were employed by a person of sedentary occupation, he would unquestionably very soon have to pay the penalty.

Question. Is there danger in syringing the ear by an unpracticed hand?

Answer. There is no danger whatever, if the person is ordinarily careful. It is right and proper to syringe the ear for cleanliness, as well as to cleanse the teeth or nails with a brush. The ear is liable to become injured in its functions by the accumulation of wax, which should be washed away.

Leucorrhœa. My wife suffers from the whites, and would be glad to have advice through the Laws. Her appetite is good, and to all appearances stomach and bowels are in good condition. Her habits of living are in accordance with the teachings of The Laws of Health, and yet this condition continues.

Answer. The difficulty is essentially one of uterine catarrh, and is to be cured only by restoring perfect health. The patient is not perfectly well, or this disease would not exist. Catarrh, however, of whatever organ, is a tedious disease, and sometimes difficult of absolute cure. Thorough processes of nutrition,

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however, are the only means of relief, and cure, when this is possible. Let your wife persevere in the good way, and expect improvement. Syringing the parts with tepid water daily, is sometimes serviceable; while the sitz bath, twice a week for ten minutes, in connection with one full bath or general wash, is indicated. When the difficulty is worse than usual, the wet abdominal bandage may be used every night. Daily hand rubbing, and kneadings and manipulations of the abdomen, and indeed of the whole body, are very important.

Question 1. In rainy or damp weather should our windows be opened, our bed-rooms and houses aired, or should we try to keep the dampness out by keeping our houses closed?

Answer. Houses should be kept reasonably dry if possible, but pure air is quite as important as dry air. Properly constructed dwellings will have ventilating flues which shall carry the impure air out, and warm air registers to bring warm air in. Until this is accomplished, however, we must ventilate our houses as best we may. In a wet day it is not necessary to introduce dampness through the whole house, even if air is admitted for ventilation. In the warm summer there can be no difficulty, for even air that is slightly damp is better than air that is too dry; and during winter the charge has always been that the air in our rooms is too dry for health, consequent upon our methods of heating. It is a strange fact that sanitarians cry out so much against air that has been dried by passing through a hot air furnace, and ask for steam-heated air so that it shall be moist, while at the same time people seem to be afraid that a little dampness from the natural atmosphere would be very injurious. Both are right and both are wrong. Extremes meet. Moderation is the golden rule on this subject as upon others.

Question 2. Do you favor sleeping between blankets where rooms are not heated?

Answer. The only particular objection that I have to sleeping with blankets in contact with the person, is that such blankets are liable to become foul from the exhalations from the person, and being woolen, will not be likely to be cleansed as frequently as though they were cotton or linen. A linen or cotton sheet will naturally be washed frequently, to keep it clean and white, and I know of no choice between the woolen and the cotton, provided both are equally clean. I should not feel comfortable, however, sleeping on a woolen blanket. The cotton sheet will be washed weekly or oftener, but I doubt if the economical housewife washes her woolen that often.

Question 3rd. What do you consider sufficient covering for the feet? Which is preferable for winter wear, cotton or woolen hose, especially for feet that perspire? What is your opinion about wrapping newspapers around the feet?

Answer. The feet should be covered sufficiently to keep them warm; and large shoes, with loose knit hose, is the best method. Confined air is the best non-conductor, and the larger the space within the boot for air, the warmer the feet will be. Woolen socks are apt to induce perspiration of the feet and so keep them cold. Paper is an excellent non-conductor, though not any better than air, and it is about as well to have nothing *in* the shoe as to have paper. If the paper is to be worn outside of the shoe, I would say that it will undoubtedly keep the feet warmer than though it were not worn, and there can be no objection except the inconvenience. Wrapping paper around the feet inside the shoe, will be likely to require shoes excessive in size, and there is nothing gained more than wearing the same shoes without anything of the kind within them, unless, indeed, the paper is worn as an insole to the shoes.

Question 4th. In case of constipation, where there is action of the bowels one day, with inaction the following day, the second day operating again, and so on, would you consider an injection needed before the close of the day? and at any time, if the bowels seem full, should we wait their own time for emptying, or should we aid them by an injection?

Answer. Full and free evacuations of the bowels are important to health, and if this cannot be obtained without the use of injections, we should employ them. I would not allow myself to skip every other day, but should undertake to secure an action daily. Sometimes, however, the most serious cases of constipation exist, where the bowels are evacuated daily. In one case, under my care, the patient was having the whole upper and back portions of the mouth eaten away by ulceration dependent upon constipation of bowels, notwithstanding his bowels operated daily. On putting him under treatment the difficulty was discovered, and by thorough manipulations of the bowels they were freely cleansed, and the ulceration ceased, and good health followed. The best means of relieving constipation is by thorough kneadings and percussions of the abdomen.

I should suppose that a patient having an occasional evacuation, could be relieved by a little attention to diet, exercise, and manipulations, and by establishing a certain hour of the day, say immediately after breakfast, for that purpose. But injections are entirely appropriate if the results cannot be otherwise obtained.

Question. What do you think of pork, or beef, cooked with a good deal of grease, for a man suffering with dyspepsia, who calls on his doctor a good deal? The doctor says he is weak, must eat strong food, and as his stomach is weak, must drink whiskey to help digest the food. What do you think of this advice of a celebrated physician? N. N.

Answer. That physician is celebrated for his ignorance more than for anything else. Read my lecture in February LAWS on "How to be Strong," and practice its teachings, and particularly get your neighbor to read it.

Question. In case of prolapsus uteri, should the patient walk much, or is much exercise on the feet injurious?

Answer. Such persons generally suffer if called upon to walk, and hence some other exercise is desirable. Certain movement-cure exercises are very important, and if these are not had, care should be taken not to walk too much, but to take exercise while in the prostrate condition. Some physicians have recommended rolling around on the floor, say for half an hour daily, or other means which shall move the organs into place, and at the same time bring into play the muscles of the general system. Walking is a splendid exercise for persons in ordinary health, but where there is prolapsus of internal organs it is liable to aggravate the difficulty; but exercise is necessary in all cases where there is reasonable vigor, and the movement-cure supplies the variety which is desirable.

[*Many questions remain unanswered till next month.*]

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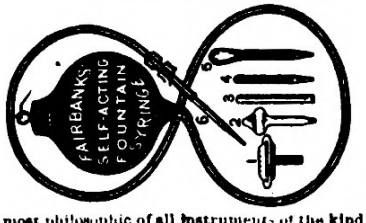

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Nearly two years since this journal was established upon the only correct principle of journalism, namely: that we had something to say that was not well said by any other. For these two years we have been engaged in setting forth truth of the most important character on a most important subject, and as the almost universal testimony of our readers shows, our efforts have not been unappreciated. As a conseqence our journal has had a most satisfactory success.

But though we have said many new and valuable things, we have not by any means exhausted our resources. During the coming year we propose that the journal shall so far exceed itself that old subscribers as well as new will be both delighted and instructed. The programme is an attractive one, and we offer the present number as a specimen of what is to be. We mean to spare no labor to place before our readers important ideas in a form easily apprehended by even the careless reader.

We would call attention to the series of articles on FOOD—WHAT AND HOW WE SHALL EAT—the first of which is given in the present number. We believe the series will be one of the most valuable that has ever appeared in any journal of health, and it is the subject upon which the American people need instruction more than upon any thing else. The method of presentation will be popular at the same time that it is scientific, and we believe that men of thought who are competent to reason upon these subjects, will be attracted to this exposition of the true system of diet. Our readers who are interested in the progress of their fellows, should make an extra effort to bring these articles before the minds of the representative men of their communities. Lawyers, physicians, ministers of the gospel, should investigate this matter, and so learn not only how to avoid sickness, but how to develop vigor of mind and body in the highest degree.

The articles ON VENTILATION will be continued and will be supplemented by others on the subject of heating. All thoughtful and intelligent men should read these carefully, so as to be able to secure to themselves pure air, as one of the necessaries of health. In addition, the series on WATER AND ITS USES, will be found exceedingly valuable. The whole subject of bathing, in health and disease, will be discussed, and we doubt not, with a candor and a skill that will be satisfactory to all who follow us from month to month.

Nor have we forgotten our series on INVIGORATION. We propose to continue these until the plans of growing into health by nutritive-cure processes, shall be fully set forth.

These articles by the editor will be supplemented by important ones from other competent writers. Dr. Tenney will continue to supply his best thought to THE LAWS OF HEALTH, and Dr. Price, also, will appear before our readers from month to month. Every month valuable rules for the home-treatment of one or more diseases will be given by a competent physician. Other contributors have promised assistance, so that we believe we can offer to the people a complete round of knowledge on the subject of health and treatment of disease such as can be obtained nowhere else on the continent at any cost. We are willing to be put in comparison with any other health journal in the world.

The terms are as formerly, 50 cents a year, or $1.00 for three subscribers. The long nights are coming, offering the best opportunities for education and improvement, so that we urge upon our readers attention to this matter. WHO CAN SEND US TEN ADDITIONAL SUBSCRIBERS? THE CAUSE OF HUMAN IMPROVEMENT WILL BE GREATLY ADVANCED BY A LITTLE EFFORT in this direction, and I am sure that it will be put forth by our friends.

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Wernersville, near Reading, Pa.

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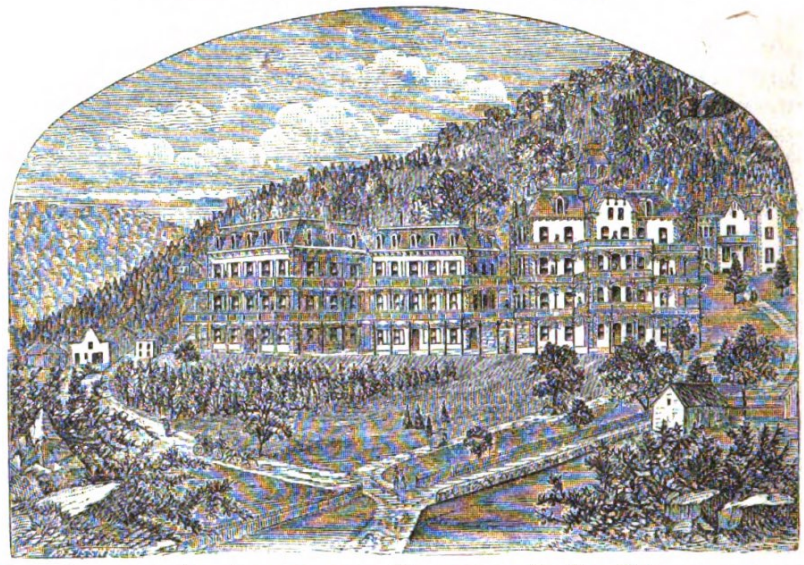

THE above engraving shows progress. Six years ago the Drs. Walter were attracted to this locality by the purity of the air, the beauty of the scenery and the softness and purity of the water. They came as strangers into a strange country, bringing with them only willing hands and stout hearts, and a system of treatment for invalids which differed essentially from all the systems in vogue, in that it undertook to restore health *by the use of such means only as tend to keep people well.* Many years' experience among invalids taught us that the popular plan of curing one disease by producing another is both unphilosophic and unsuccessful; and that a new and different system was urgently demanded.

THE NUTRITIVE-CURE

was the result. By this we mean the production of strength and vigor, and the cure of disease, through processes of nutrition alone. This practice was followed in temporary quarters for three years with most excellent success, by which the propriety of the system, as well as the value of the location, was proved; when we determined to build, and the first building of the engraving was soon in process of erection. In the spring of '77 we moved in, and during the year it was crowded with the friends and neighbors of those who had tested the merits of the system. The following spring the second building was added, and still following, the third, until now the fourth large building is in process of erection, and will be finished the coming spring. Out-buildings have been erected and orchards planted, gardens prepared, and many other conveniences arranged for the comfort and health of those who visit us.

Winter and summer there has been increasing demands for room, and to-day we have to report a large family, who are comfortably quartered for the winter. But we have room for more, and invite invalids everywhere to come and be restored. We can assure them that there is no mistake about the success of the methods. The new circular just issued will be sent to any address, and will give ample references, which, however, can be increased by the hundreds, and the new pamphlet in process of preparation will make such a showing that no one can doubt the success of the methods.

TO OUR FRIENDS.

The great faith which we have in these methods, and the determination to leave nothing undone to prove their correctness, has been the incentive to build. The first building was too small; the second was added and we still found ourselves cramped for room; the third gave us additional accommodations, but immediately we discovered that parlors, dining-rooms, treatment-rooms, were all too small for the enlarged business; and hence, to make ourselves the most convenient and satisfactory institution possible, we have added the new building, at great expense, and on the faith of correspondingly increased patronage. The risk involved would ordinarily be considered great. But we fear not. Truth will win. It cannot be that a system so demonstrably valuable can fail. It is the crying need of the age, and sick people will discover their wants. But

WE NEED HELP.

There are invalids in your communities who would be thankful for a word of encouragement from you; and while you will be doing them good, you will be aiding us, as well as the cause of human improvement. You, yourselves, have no doubt of the greatness of the enterprise, and its value to the fortunate ones who patronize it. Will you aid us in extending our efforts into new fields? During the last year we have been so successful in restoring invalids that we are more and more enthusiastic over the system which accomplishes so great results. Who will send us

THE NAMES AND ADDRESSES OF INVALIDS?

But better still, who will carry words of counsel and wisdom to them. Thousands are dying who need not die; and thousands are daily suffering who need not suffer. The way to health is clearly discernible if the true light is permitted to shine; and all who know of the better way should hold the torch of truth to guide the wandering feet to health and happiness.

Address for circulars and full information,

ROBERT WALTER, M. D.,
Wernersville, near Reading, Pa.

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THE LAWS OF HEALTH.

Health is the normal condition of man. Remove the cause and the effect will cease.

VOL. II. READING, PA., APRIL, 1880. No. 12.

Water;—Its Uses and Abuses.

BY ROBERT WALTER, M. D.

Water as a Cleanser. Filth may be defined as matter out of place, and cleanliness implies a removal of the matter to its appropriate destination. Water is not by any means the only agent of cleansing, air and sunlight being equally mediums of interchange; but water is, nevertheless, the more obvious means whereby nature, and man who but imitates her, remove impurity from one place in which it is an impurity, to another where it is no longer impurity, but rather food for living things.

Air is a great purifier, as for example, carbonic acid, which is a deadly impurity for animals, while it is food for vegetables, is thus distributed to the vegetable world. Sunlight operates in a less obvious manner, but none the less truly, while water is the great obvious means of cleansing. The face of nature, as well as of man, becomes soiled, and the rains which descend from the great heart of nature but wash her face, and with the materials feed growing vegetation. The rains also wash the air by absorbing its varied impurities, carrying them down into the soil, where they are food for the millions of rootlets employed in sucking them up. So also with water and soap, scrubbing brush and broom, we cleanse our dwellings, and if wise, feed therewith our vegetables, fruits and grains. Our clothing requires also to be frequently cleansed, and water in connection with soap is the great means. But not only should our dwellings, our clothing, the parts of our body which are exposed to dust and air, be frequently cleansed, but the parts protected with clothing require equal care. The external skin is a great outlet for the impurities ingenerated in the body, and upon the surface these will accumulate unless properly removed.

The head, including the scalp and the hair, should be frequently cleansed. The finger nails and the hands, the teeth and the mouth, the nostrils sometimes, the feet and the whole body; the indentations and corners should receive particular attention. Clothing should be frequently washed. It is astonishing how much filthy clothing is worn. Men employ such colors as will hide the dirt rather than expose it, and wear the same materials months and sometimes years without proper cleansing. Possibly such a habit may be tolerated without serious injury to health, provided the underclothing is carefully cared for. That which is worn next the body absorbs daily large quantities of matter that is decayed and filthy, and if underclothing be continually worn, the person is not only filthy but must become unhealthy.

No garment worn through the day should be retained upon the person at night. Care in this respect will give opportunity for the air to operate as a cleanser. The gown worn at night should be exposed to air through the day, and if possible sunlight, as also should the bed, while the clothing worn through the day should be exposed freely to air at night. In addition, a complete change should take place at least once, and better twice, a week. To wear clothing by the month without cleansing, often without opportunity for thorough airing, betrays a fearfully unhygienic habit. Let all underclothing, which should be made of material that is readily washed, be thoroughly washed weekly, or oftener, being worn only half the time, and let all clothing that is not washable, be dusted and aired frequently. The processes of washing need not be explained here, for housewives are generally fairly skilled in the art of washing clothing.

BATHING FOR CLEANLINESS.

As I have already intimated, the chief necessity for bathing for cleanliness grows out of the fact that the skin is a great organ of depuration. Upon its surface are quantities of matter continually being thrown out, having been taken up from the blood by the perspiratory glands, and unless this matter is removed by bathing, it is liable to remain, in some degree at least, to clog up the pores and so prevent the due performance of the functions of this organ. Each adult person exhales through the skin probably two pounds, more or less, of matter daily, chiefly in the form of insensible perspiration. This matter of course is more liable to be lodged within the clothing than upon the skin, but nevertheless, the skin itself will undoubtedly retain much, if it is not removed by some processes of bathing. The occupation of persons may increase the necessity for baths. Persons working in mines, harvest fields, or manufactories, where dust is abundant, need more frequent bathing than persons engaged in sedentary and cleanly occupations. In one case a daily bath may be permitted, provided the person is vigorous and not exhausted with the day's labor, while in other cases, especially of nervous, active, and, perhaps somewhat feeble, brain workers, a bath each day would be injurious. It is possible to bathe too frequently. The use of water on the person abstracts vital heat, deranges the magnetic conditions, and, if continued in great degree, tends to debilitation of the general system. Bathing of the person for cleanliness is no more important than washing of the underclothing, if it is as much so, and hence there is no more need in ordinary cases to wash the person than there is to wash the underclothing daily. A clean undergarment twice or thrice a week will ordinarily suffice, and just as often a bath for cleanliness is entirely sufficient, while a more frequent application, if justified at all, must be for some other reason. We shall show at some future time that the daily bath is a most destructive habit to many people.

TEMPERATURE OF BATHS.

Warm water is universally considered superior as a cleanser to cold water, and there is no reason why a cold bath should ever be employed by any person for cleansing. The use of soap is frequently desirable, especially for cleansing the obscure or obstructed portions of the body. A thorough soap bath to the head every week is always to be commended for the purpose of cleansing the scalp, the face under the beard, &c. The nostrils may be cleansed with the nasal douche; that is, a douche of warm water with a little salt in it, run from a fountain syringe up one nostril and back through the other, which will readily be effected by holding the head forward during the operation.

The teeth should have a thorough scouring every morning with cold water and prepared chalk. The feet and toes, as well as the finger nails and hands, will claim especial attention by all cleanly persons, and hence a good tooth brush, hand brush, and sometimes a flesh brush, in connection with pure water and castile soap, are important articles of every person's toilet.

THE FORM OF BATH.

The full bath, for cleanliness, is preferable to all others, but not as convenient as sponge, towel or hand bath. The sponge and hand bath are exceedingly faulty as cleansing processes, because while the person is engaged in cleansing a part, some other part is exposed to the air, and a checking of the circulation probably results. With the full bath, the person being immersed throughout in warm water, no exposure to the air is permitted, and hence no probability of chill or of cold exists. After coming out of the bath, a sheet should be thrown over the person to prevent the air of the room from evaporating the moisture too rapidly, and so chilling the surface. A thorough rubbing with the sheet will dry the person, and this rubbing should be followed by equally vigorous rubbings with the dry

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hand. If the full bath cannot be had, we recommend the gown bath, but in the absence of conveniences for either, the sponge or hand bath may be employed in a warm room, the person being careful to wash and thoroughly dry and rub one part at a time.

Scrofula.—No. 24.

By J. A. Tennet, M. D.

Tubercular Consumption.—The nature of the formation of tubercles has been fully described in preceding articles, hence it is not necessary to explain the matter further. The formation of these bodies does not depend upon local disease or irritation, but arises from a vice of assimilation. Extended observation shows that local irritation does not even favor their development. They are generally situated in the upper portion of one or both lungs at the commencement of the disease. Sometimes the deposit does not increase, but remains stationary for years; in other cases the lungs are entirely filled with tubercles in a very short space of time, and ulceration and destruction of the lung substance rapidly follow.

Tubercles are not deposited in the air-cells themselves, but around them and about the blood vessels, in the lung substance. The only way to remove them is to have them soften, when they produce ulceration and are expelled by coughing. If they have collected in great quantities, the ulceration will be so extentive as to form cavities, and the consequent inflammation will be so great as to completely undermine the constitution in the great majority of cases.

Pain does not necessarily attend the formation of tubercles; but after they have existed in the lungs for some time, it is almost always present. It may or may not be confined to the particular portion of the lung affected. The signs of tuberculous formation are various. Upon applying the ear to the chest in the first stage of the disease, it will be found that the passage of the air into the lungs is obstructed. The sound of the heart will also be heard with great distinctness wherever the deposit exists, because the tubercles make the lungs better conductors of sound than they would be otherwise. There is also dullness over the affected part upon percussion, when compared to that heard over healthy portions of the lungs. When one lung is pretty nearly filled, the air-cells of the other will be enlarged, from its effort to do the work of both. Nature endeavors to supply the deficiency made by disease and obstruction, by enlarging the air-cells in portions free from disease. If the deposit of tubercles affects both lungs alike, the free portion of both will suffer this enlargement of air-cells. These signs are important in distinguishing the affection in its earlier stages; after the first stage has passed, it is not at all difficult to determine the nature of the difficulty.

The second stage commences when the tubercles break down, and ulceration commences. At this time there is cough and expectoration, the matter expectorated being slight at first, and generally consisting of light, frothy mucus, which gradually grows more and more opaque. Chills, which are not referable to malaria, occur at this stage. With these symptoms come accelerated breathing, loss of weight, hoarseness, and often bleeding at the lungs, which is always an important symptom; not because it is dangerous to life, but because it indicates with great certainty the nature of the disease. Diarrhœa sometimes accompanies the disease in the first and second stages. When it occurs near the commencement of the difficulty, it shows a tuberculous condition of the intestinal canal; but it is not uncommon in the later stages of the complaint, when the digestive organs are free from such a deposit. Dropsy in the extremities shows a failure in the circulation, and often marks the second stage. The pulse becomes accelerated, the patient has night sweats, expectorates large quantities of offensive matter, consisting of mucus and pus, and finally dies from exhaustion.

The duration of life varies more, perhaps, than in any other incurable disease. In what is called "galloping consumption," the patient often lives but a few weeks. I have known a person to die in one week's time, after softening of the tubercles commenced. Some live on for six months or a year, while others live many years. It is not very uncommon for well-marked cases of tuberculosis to live for twenty years; and some have been known to have tubercles in the lungs, so as to cause considerable discomfort for more than forty years. Sometimes the disease will be well marked, and after a time the trouble will cease to progress, and be held in check for years. In rare cases, consumption has been known to go on to its worst stages, where cavities have been formed in the chest, and yet the patient has recovered; so, while the outlook in all such cases is unfavorable, it is always well to do everything for the patient that can be done, as though health were known to be within reach; for what has been done can be done again. The dissecting room often shows that tubercles may run into abscesses, and yet healing processes may be set up, which enable the patient to live on to old age, or die of some other affection.

In the treatment of this affection, as in other lung diseases, water bathing should be used very carefully and sparingly. Generally it is better to use hand baths, washing only a small part of the body at a time, while the rest is well covered. These should not be given oftener than twice a week. All the outdoor exercise that can be taken without exhaustion, should be had daily. Walking is one of the best forms of exercise; it causes the blood to flow to the feet, and so relieves the lungs. Movements are of great importance, especially manipulations of the extremities. These should be given every day, rubbing, kneading and percussing each limb for a minute or two. In giving movements, care should be taken not to overdo, and so exhaust the strength of the patient; keeping it constantly in mind that the great object is to save and develop the patient's vital power. We can only supply the conditions; we cannot add anything to weakened vitality; but sometimes we can so direct and develop it as to help the patient to overcome diseased conditions. All such depleting substances as whiskey, cod liver oil, hypophosphites, &c., should be avoided, and all dependence should be placed upon nutritous food, pure air, and the other hygienic agencies, as far as the patient can appropriate them to advantage, always endeavoring to keep a little inside of the patient's strength, never going beyond it. Stimulants always create an abnormal activity of the vital powers, and have only an exhausting tendency. After everything has been done in the way of hygienic appliances, if there is failure to restore the patient, it is because his constitutional power is at fault. But when the progress of the disease is favorable, the worst symptoms gradually subside, the strength and weight return, and the patient rejoices in returning health. This result may be looked for if he has a very strong constitution, and the collection of tubercles is not very extensive.

Naso-Pharyngeal Catarrh.

By L. Jones Price, M. D.

Naso-pharyngeal catarrh is a hypersecretion of the mucous glands found in the mucous membrane which lines the nose and upper part of the pharynx or throat. It is characterized by a collection of mucous or pus above the soft palate and back part of the nose, which excites the individual so affected to *hawk* and *spit* continually, especially in the morning. In the first stages this secretion is thin and white and frothy, but after a time becomes thick and yellow; sometimes it comes away in scabs mixed with blood.

Etiology and Pathology.

This *hypersecretion* is caused by a congested state of the mucous membrane. The more blood that is sent to a part, the more vigorously will that part carry on its natural function, and if this increased supply of blood becomes permanent, the increase of function becomes permanent. This is the condition in a catarrh of these mucous glands, whether located in the nose and pharynx or elsewhere. A knowledge of the causes which produce this congested state of mucous membranes is very important, because it

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leads directly to the means of prevention and cure.

1. *Tonsilitis* is often followed by naso-pharyngeal catarrh by continuity of structure—the mucous membrane that covers the tonsils continues up through the parynx and nasal cavities, consequently a permanently congested condition of the tonsils will produce a catarrh of the mucous membrane over and around them. Several cases of nasal-pharyngeal catarrh have come under my care that were caused principally by a chronic enlargement of the tonsils, so blocking up the throat, that the proper secretions of the back part of the nose and pharynx were retained and produced a very foul odor. Prolonged exposure to damp and cold is often an important cause of congestion of the mucous membrane in any part of the body. I knew a young man who was wrecked on Lake Michigan and was forced to stay in water up to his waist for over 24 hours. The result was a severe naso-pharyngeal catarrh, which lasted for several years. The use of a stimulating diet, as mustard, pepper, chow chow, &c., has a tendency to irritate the the mucous membrane of the pharynx. The use of tobacco and alcohol are also irritants. Obstructions in the nasal cavities, as tumors or mal-development of some of the bones, are occasional excitants. An inactive state of the liver, kidneys and skin, constipated bowels, an impure condition of the blood from inherited or acquired syphilis or scrofula, impure vaccination and dyspepsia are often causes of this disease.

Treatment.

The local treatment should be used solely for the purpose of cleansing and disinfecting the parts affected. Astringent injections injure the mucous membrane and tend to make the disease permanent instead of affording relief. A teaspoonful of common salt to a pint of water is very effective as a cleansing agent, and if a deodorizer is needed, a small preparation of permanganate of potash may be added to it. I prefer using the catarrhal syringe to the nasal douche, as there is no danger of flooding the Eustachian tubes with the former. The retention of mucous or pus in these cavities destroy those little hair-like processes that cover the mucous membrane lining the air passages, and which are continually waiving towards the exterior, whose office it is to assist in carrying off the natural fluids of the parts. Therefore daily use should be made of this syringe to keep the secretions from becoming dry and forming scabs.

The general treatment should be directed to the elimination of impure matters from the system, by keeping the liver, bowels, kidneys and skin in an active condition, and by eating only such quantity and quality of food as the system can properly dispose of.

If the bowels are constipated, use an enema of water at 98 or 100 degrees temperature daily for relief, and thorough kneading and percussion of them daily to induce vigorous action. If kidneys are inactive, drink freely of tepid water night and morning, and to keep the skin vigorously active one or two warm baths a week, followed by vigorous rubbing, will be very effective. Daily manipulations of the whole body will aid greatly, as also the varied movement cure exercises with abundant outdoor exercise The diet must be nutritious but not stimulating. Tea and coffee, spices and sugar only irritate and inflame the mucous membrane. Oils and fats feed the mucous glands and keep up the discharge. The diet should be composed of the grains properly cooked; vegetables and fruits, excepting that acid fruits should be used moderately. In other words, invigorate the whole system by nutritive cure processes, adopting habits which tend to the proper assimilation of the food, with pure air to breath and soft water to drink and use and the catarrh will cease.

Wasting Vitality.

By J. A. Tenney, M. D.

The American people get sick from principle, and try to get well by spasms. Their ways of wasting vitality are numerous and constantly exercised, while their efforts to recover health are like bursts of passion. They treat human life as though it were the cheapest of all earthly things, until they are in immediate danger of losing it, when they suddenly make an effort to get well, that is as frantic as it is futile. If this effort were half as systematic as the process of getting sick, they would recover in a short time; for it is the nature of the organism to spring back and recuperate if it has a reasonable opportunity.

There are times when it is best to weigh one's life in a balance, and to resign it for philanthropic or patriotic causes. But in such cases, the life should be given up because it is worth less than that for which it is sacrificed. It is very seldom that any one is called to die for a cause that is worth more than life; but it is very common for people to waste their lives without even the thought of any proper return. The love of life in man should not remain dormant at all times except when he is in immediate danger; it should be on the alert continually to prolong life by controlling every propensity, thought and action.

Some men cannot come into the possession of money without lying awake at night to devise ways of spending it; and the majority of people do not know what to do with themselves if they chance to have a little surplus vitality. Some get rid of it by drinking ixtoxicating liquors, and call it "enjoying themselves." But this plan is condemned by the more intelligent portion of the community, who waste their life forces in an equal degree, but after more refined methods. They rush about their business so we can hear their hearts palpitate. They go without sleep enough to craze an owl, and eat substances that would give colic to an ostrich. Their methods of living make the summer hotter and the winter colder. They make the air unfit to breathe, and the water unfit to drink. They bring disease and death upon themselves by deforming their bodies, and in a thousand ways rush into hopeless invalidism. We are a nation of spendthrifts in this matter of vitality; yet when we get sick, we turn up our eyes in the most innocent wonder, and finally come to the conclusion that our illness is owing to some mysterious Providence. Our false habits so weaken our bodies that the natural excretions cannot be expelled properly, hence they are retained until they become poisonous; then we send for a doctor, who gives us an assortment of poisons to chase those already at work within. We get temporary relief, and go over the same road again and again, until finally, the angel of death, seeing how incapable we are of managing our physical systems, kindly relieves us of their care, giving us over for a bad job; and perhaps hoping that we will succeed better in some other pursuit.

The foregoing is intended to introduce a series of articles upon this subject, How to Get Sick; which will appear in The Laws of Health during the coming year. As getting sick seems to be an object which is pursued with more zeal than any other by the majority of people, it cannot be out of place to delineate the most approved methods in this journal. Perhaps a few will regard what is written as a sign of danger, and govern themselves accordingly.

How I Cured my Headache.

When the weather changed from cold to warm I changed my diet—not a particle of butter, or anything of a greasy or oily nature, pies, cake, or anything "shortened," and less in quantity of what I did eat, for a time.

I had been troubled with headache, more or less, ever since I was about six years old, (when I was calomized to the brink of the grave,) sometimes sick and sometimes nervous headache.

After a few years I would have a kind of sick headache that would last three days. First I noticed that it came on when the weather changed warmer, and having read of the different kinds of food required in different climates, reasoning from that, was led to do as I did over thirty years ago, and have not been troubled once since with that three-days headache; very seldom have any headache; when I do, it is very readily traced to its cause.

I would say to any one who reads the article on "Spring Fever" in the March number of "The Laws of Health," that "a word to the wise is sufficient." Experience.

P. S.—Would two meals per day be sufficient for a girl fourteen years of age. F. Z. G.

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The Laws of Health.

Monthly, 50 Cents a Year.

ROBERT WALTER, M. D.,
Editor & Publisher.

J. A. TENNEY, M. D.,
Associate Editor.

☞All communications should be addressed to Wernersville, near Reading, Pa., the residence of the editor.

READING, PA., APR., 1880.

OUR PLATFORM.

1. The vital power in the organism is the only healing power.
2. The rapidity and the certainty of cure depend as much upon the degree of vitality—the amount and quality of the vital force—as upon the distribution of it.
3. The symptoms may be changed and the disease often cured by reducing the quality or degree of this force, on the one hand, or by increasing it on the other.
4. Bleeding, purging stimulating, and all drug processes, as also the Water and Diet cures, as usually employed, cure on the former plan.—the plan of depleting the system.
5. The Nutritive-cure, on the other hand, cures only by building up, invigorating, and purifying the organism.
6. The true way to cure invalids therefore, is to distribute the vital force to its appropriate channels by means which shall increase, but never reduce the vital vigor.
7. This is done by the use of normal health agencies, which while equalizing the circulation, in which all nutrition takes place increases the production or manufacture of vitality, and reduces expenditure.
8. The breathing, digestive and circulatory systems comprise the organs of manufacture; while the brain, and nervous systems comprise the organs of expenditure.
9. The organs of manufacture are largely muscular, and depend for the performance of their functions on muscular contraction and relaxation; while
10. The organs of expenditure are mostly nervous, and depletion corresponds to the excitability and activity of the nervous systems.
11. All processes are to be employed to invigorate the muscular systems, special and general, while at the same time they tranquilize the brain and nervous systems thus producing quiet, content and rest.
12. The Nutritive-cure embraces these principles, and by representing a scientific combination of exercising, breathing, bathing, eating, sleeping, resting, clothing, &c., is the only scientific system of medication in existence.

Volume No. 3.—1880.

The present number closes the second volume of our journal of health, and we enter upon a new year with every encouragement for continued life and prosperity. During the past year we have had some five thousand readers, who have been interested from month to month, and the coming year we hope to increase very greatly the number. Reports are continually coming in that people are pleased and benefited—gaining information, as one says, which he can find no where else. In this respect the LAWS is worthy of a peculiar interest. The ideas which it teaches are chiefly original with its editors, having grown out of a peculiar experience of over twenty years; an experience which seldom comes to men, and which has led to a knowledge of truth that we believe must revolutionize medical practice. Indeed, the revolution has begun and the LAWS is no inferior agency in its production.

The cost of even a small monthly, such as this is, is very considerable, especially since the extravagant rise in the price of every thing, but there is one grand thing about truth, it loses nothing in value by being divided to the millions. The truth is none the less valuable that it costs only a few cents a year, nor is a journal to be at all despised because it is small and unpretending. Our effort has always been plain, practical, everyday truth placed within a compass and form to be received and appropriated by ordinary readers, and we believe we have succeeded very decidedly in our effort. There are larger magazines devoted to the subject of health, but who will say that they give equal amount or quality of information? There is more to be learned from a little paper at 50 cents a year, which is a medium for condensed information, than from many journals of four times its size and cost, where the words are superabundant, upon which are very thinly spread ideas.

Reader, shall we have your company for the year to come? The prosperous and happy of all ages are those who keep up with the times, studying carefully the new thought as it comes from the experiences of men. There is much yet to learn in this world, especially on this most important subject, health, and we cannot have our attention too carefully directed to it. Truth is learned very much as food is digested. It requires time and opportunity, and the wise man is he who feeds the mind regularly and carefully, just as he would feed the body, Even a hint is often of immense service in breaking up the old, awkward, cumbersome methods, and substituting improved plans of doing things.

We hope that prompt renewals will be made, so that the printer and publisher may be encouraged. And who will send at least one new subscriber? Will not every reader try to interest his neighbor, and so give us a helping hand? We do believe that this journal is engaged in advocating and aiding one of the most important reforms of this or any other age. When health of body and soundness of mind shall have been attained by the whole human family, as they may be, the millennium will not be far off; but while sickness and doctors and drugs and early deaths continue as they are at present, we may expect millennial happiness never to appear. We do not know that it is wise to make any promises for the coming year, but simply to say that we mean that the journal shall improve with age. Will you help us? The series by Dr. Tenney on How to get sick, will suggest important ways of avoiding this undesirable condition. Dr. Walter will discuss the whole subject of Bathing, as also Food, what and how we shall eat; other contributors will be admitted, but the editors will of course furnish us with the most important articles.

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Home-Made Treatment.

Labor and worry and sickness and death seem to be common to the lot of man, and how to avoid all such as is unnecessary, is of course a serious question. How to keep well when we are well, is important, but how to get well, when we are sick, is even more so. Continually we hear from correspondents who are out of health and want to recover it with the least possible expense, and if possible without interfering with their ordinary avocations. "Cannot you tell me how," says one, "to cure myself at home where I can continue my business?" To such persons we give home prescriptions and charge therefor $5, and we believe every one who has obtained such a prescription has received $5 worth of good and solid value; but health is usually worth more than $5, and it frequently costs more. "THE LAWS OF HEALTH," if read carefully for a year or two, will *instruct any man how to keep well*, but it might require perusal and careful study for twenty years, to teach him *how to get well if once he is sick*. How to get well is the most important of knowledge, and the labor involved the most important of work ever performed, and hence is not learned in a day or an hour.

I can go to my tailor and say, "it costs a good deal every year to have you make my coats, wont you tell me how to make them at home without coming to you?" "Certainly I will, but what sort of a coat will you have when you have made it? It took me ten years to become a tailor; do you think you can spend ten years in learning the trade?" So he may say to his shoemaker, who will tell him all about making boots, but we venture to say it will take a few months to learn to make the boots. So we go to the lawyer and engage his services to plead our cause. Why do we not ask him to explain to us the law and let us plead our own cause. Because there is an art as well as a science in such things, and it requires years of labor, patience, persistence to learn the art after the science is understood. Just so, my friends, it is with the physician. It is one thing to teach the general principles, and even the practice of getting well; it is quite another thing to apply these principles and this practice to the recovery of health. The writer was an invalid for twenty years and it took ten years of arduous labor to recover by the only true way. Every reader of this journal may recover in the same way if he is wise, laborious and patient enough, but we venture to say it will cost him more in the end to manage it himself than to pay the physician to take charge of his case. Human life is too important to be trifled with; and tyros, apprentices and bunglers should not be trusted. Only those who have studied the science and applied the art until they have become skilled—until all

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the little ins and outs, the niceties and perfections of the system are understood—are to be trusted.

Home treatment, to save a few dollars, is like gathering up the stubble from the wheatfield to save buying hay. If it ever was true that men are "penny wise and pound foolish," it is true on this subject of health. They will endure for years all the pain and suffering possible, spend money in buying cheap medicines, and waste time in fretting over fruitless efforts, until the months and years slip away and the icy hand of death comes, and they leave behind them what might have been employed to bring to them ease, comfort, health and wealth. If there ever was a foolish economy, it is the economy of trying to get well after home-made methods. Something cannot be had for nothing. Health comes by patient continuance in well-doing; and the physician is a doctor and the doctor a teacher, and to teach the science of keeping well is the physician's business, while at the same time he applies the means for getting well. "Health is wealth," and "time is money," and no man can afford to do without the one or waste the other in obedience to a foolish economy.

Imagination and Reason.

These faculties of the human mind are important elements in the discovery and maintenance of the truth. Of the value of reason it is unnecessary to speak, because of late years this has been lauded in the highest degree; but in doing so, we suspect that the province of the imagination has been belittled. These faculties differ very much from each other as to character and functions, and yet they are closely allied to each other as the grand means of laying hold of the hidden truths of both the natural and spiritual worlds. The imagination suggests what may be true, and hence starts reason into an examination of the subject; while reason on the other hand, seldom seeks the truth until imagination suggests its existence. The grand discoveries of all ages have come through the operations of an active imagination, sustained and rendered certain by careful analysis.

But in order to success, it is important that these two functions shall be kept carefully separate. To mix reason and imagination together, without discriminating between them, is to lead us into unlimited confusion. Neither is sufficient to human needs, nor are both combined, unless each is kept in its proper sphere and used under proper conditions. To accept as true, everything which may be imagined as possible, is to be the subject of the veriest delusions; or to believe in nothing that reason has not worked out, is to make us the dullest of mortals; or to mix the two together without any discrimination as to their relative positions, is to lead us into the most wretched difficulties. On the other hand, let the imagination be stimulated to the highest degree; let us conceive as possible any of the wondrous things that could make us happy, and let us rejoice in their possibilities; but let us remember that until reason has clearly shown the truth,—that until analysis has enabled us to start with causes and to arrive at effects, and we have proved our position by reversing the operation, we can have no certainty of truth. There is a grave distinction, therefore, between flights of fancy, and solid reason; between vain imaginings and the world of sober truth, and yet both are important when the distinction is carefully observed.

Alcohol a Poison.

It appears that alcohol is coming to be regarded as a poison in English courts of justice. A man named James Lewis Paine was recently convicted of manslaughter, because he kept his wife in a continual state of intoxication for two months and a half, thereby causing her death. He enforced this condition upon her partly by persuasion and partly by authority, thinking that by causing her death in this way, he would not be considered guilty of murder. But he was arrested and tried, and the Judge charged the jury, that if the man merely allowed his wife to slowly poison herself to death by any life-destroying agent, he was guilty of manslaughter; while if he deliberately sought her death in any such way, he was guilty of murder in the first degree. He was given the benefit of the doubt and was sentenced to imprisonment for life.

The question naturally grows out of this, whether furnishing intoxicating liquors to any man known to be on the road to a drunkard's grave is not manslaughter in the same sense? And if such a decision should generally obtain in this country, how many who now sell liquors at retail would be found outside of the penitentiary? It is fair to suppose, that out of the 60,000 who annually fill drunkard's graves in the United States, a large proportion procure their daily drams of some known dealer in ardent spirits, who is fully aware of the downward course of his victim, and who allows him to go on toward death without any effort to save him. Certain it is, that every dealer in intoxicants helps to fasten the habit of using them upon many a poor unfortunate, until he cannot rid himself of their iron chains. If a man may not permit his wife to die from such a cause without being convicted of manslaughter, why should the rumseller be allowed to prosecute his death-dealing traffic unmolested?

Too Much Exercise.

People who are possessed of good sense in other directions, often make a hobby of some one of the hygienic agencies, and "run it into the ground," greatly injuring their health by the process. If a young man has weak lungs, some one will tell him to blow into a spirometer, to enlarge the air-cells. He does this, until they become so much enlarged that they will run into each other, causing a permanent, incurable condition. Another is told that Turkish baths will cure all his ills. He tries them, and as the immediate effect of the stimulation is exhilarating, he follows the idea that if a little of a thing is good, a great deal must be better, and after a while he finds his nervous system completely prostrated, and he is fortunate if some incurable disease does not show itself. The lift-cure is one of the greatest evils as ordinarily practiced, because it is so easily overdone. Even if no unpleasant consequences follow immediately, as the result of injudicious straining, if it is long continued, it will develop the muscular system at the expense of the rest of the body. The way in which these things are often managed is precisely similar to the manner in which a boy breaks his first colt. He thinks his colt will make as fine a trotter as ever was driven, so he feeds him and lashes him to the work. After a little, the animal's "wind is broken," and his owner finds that there is a difference in horses' capacities for speed.

A recent issue of the *New York Times* contained an account of a young man who had rather flabby muscles, and reading Blaikie's book entitled "How to Get Strong," he set himself about following the plan set forth in the book, which consisted in exercising, and doing more of it as his strength increased. At the same time, he took a cold shower-bath every morning, one of the most stimulating, and therefore exhausting, of all possible appliances. He continued to increase his exercises during the past summer, using dumb bells, rowing, and taking five-mile walks daily. But early in the fall he had a sore break out on one of his shoulders, which refused to heal, and one of his wrists became swollen, so he could not row with it. He sank into general debility, until he found himself at the beginning of winter thoroughly used up, and he found that months must be devoted to the recuperation of his wasted energies. The physician who took him in charge stated that many of the leaders in college athletic sports, sooner or later became exhausted physically, some of them beyond recovery. It should be noted that either cold baths or ambition will push a man beyond his vital resources, as well as beyond the bounds of reason. Without these means of stimulation, one is not nearly so liable to overdo. People should exercise all their powers alike, in moderation, and without being goaded on by any kind of stimulation, taking care that the amount of exercise taken should be balanced by abundant rest and sleep. "He who strives for the mastery is temperate in *all* things."

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Questions Answered.

By Robt. Walter, M. D.

Question 1. What do you think of the habit of chewing gum?

Question 2. Would you ever allow children to eat any candy whatever?

Question 3. When a person has an ordinary cold and a constant tickling sensation in the throat, what is best to do for it?

Question 4. I eat breakfast at 7, dinner at 12 and supper at 6, but invariably after supper have a sour stomach and burning in my stomach. Would it be better for me to go without any supper? I have tried it several times and was so hungry I couldn't sleep. Mrs. G. H. M.

Answer 1. The chewing of gum is injurious, though not as much so as the eating of candy. By the chewing of gum the salivary glands are continually excited, and the stomach sympathetically deranged, while no good whatever can come from it. It is an element in causing dyspepsia.

Answer 2. I would not allow children to eat any candy whatever. It is always injurious, and if the child is properly brought up, it will never seek it. Children crave tidbits and little pleasures in the way of eating, but they can be fully supplied with figs, dates, orange, apple, peach, &c.—wholesome food when eaten with moderation and at regular meals, and if they are properly trained in this way will never give any trouble.

Answer 3. When a person has a cold he should take a hot bath to restore circulation, should abstain from food for a meal or two, should go to bed and place a wet compress over throat and chest and renew it as often as it gets dry, and wear it until the tickling has ceased.

Answer 4. Eating supper is positively injurious to you, and should not be indulged. You ought, if possible, to have dinner at two o'clock and eat moderately, or, if you must have supper, eat an apple or two or three figs, or some other wholesome, easily digested food, but if possible, it is much better for you to eat no supper whatever. If your habits of life were correct in other respects, you would have no hunger at night. You have the dyspepsia, and are in danger of becoming confirmed in it, unless you rid yourself of the trouble by some means. Probably what you need is rest and proper hygienic treatment. If you could spend three months in a good institution, you would have good health secured to you for many years to come.

Question 1. When will your new book be so far advanced that you can give a table of contents and specimen pages? I want to work for subscribers. Please tell me what the price is likely to be.

Answer. My new book cannot be ready this year. Business has pressed so closely that I cannot give it the proper attention for some months. It will probably be published in three parts at $1.00 each.

Question. For the past six years my mother has suffered with occasional severe pains in the nerves of her face, the pain commencing in the lower lip and extending through the right under jaw, and hence through the tongue. The disease has increased much in severity and frequency during these years. At times the pains occur as often as three times in five minutes. It pains her to talk and eat, preventing her from properly masticating her food. Our physicians have only temporarily relieved the difficulty, and all agree in pronouncing it the tiedouloureux. What is the cause, and is there any means of cure? The disease appears to be local, not materially affecting her general health. She weighs nearly 200 pounds and is 57 years of age.

Answer. If she were in good health she probably would not weigh 200 pounds. She is burdened, undoubtedly, with old, devitalized and half decaying material, which should have been carried away through bowels, skin, kidneys years ago. If she weighed 200 pounds of good solid flesh, she would be a more powerful person than the majority of men are, but instead of her being strong as the result of this flesh, she is undoubtedly burdened and weakened. I would as soon go through life with a sack of wheat tied to my back, as to carry a skin full of half vitalized flesh that weighed as much as the wheat. Your mother has torpid liver as well as torpid skin and kidneys, and more or less constipation of bowels. True, she may have an evacuation daily, and yet not in sufficient degree to relieve the system. I would advise all the plans of improving nutrition by improving circulation, so that she should become strong and robust as well as fleshy, so that the blood will become pure, and hence the cause of her neuralgia disappear. The neuralgia exists in connection with an impure or devitalized state of the blood, in connection with torpid liver, bowels and skin. Your mother can be cured by hygienic methods, but in no other way; certainly not by drugs, which never cure a patient of any disease of a persistent nature. Patients under drug-medications are often relieved of ailments which are naturally transitory; or they are sometimes cured of certain diseases by producing other ones, which is the approved plan set forth in many medical works, while the nutritive-cure cures all diseases by building up vital organisms to perfect health.

Question 2. Dio Lewis says, "what takes place in the lungs is more important than anything that precedes it: for example, a man may live upon the worst diet, and live out of doors in pure air, and he will have purer blood and be freer from humors than another man who lives hygienically, but who constantly breathes stove-poisoned air."

Answer. Stove-poisoned air is unquestionably one of the great evils of the times. The people know nothing of healthful heating and ventilation, and hence through the whole winter they breathe a quality of air that is positively destructive to health. Outdoor life is a grand means for development and vigor, and though I do not think breathing the most important act of life, it is certainly extremely important. Digestion, breathing and circulation are the three great acts which manufacture vitality, and one is about as important as the other. If there is any difference it is in favor of circulation, being the first, greatest and all-important function of life. In the circulation all nutrition takes place. With good circulation there is always good health; with poor circulation, always poor health. Perfect breathing and perfect digestion are necessary aids to perfect circulation, and hence neither of these functions can be said to be more important than the other. Pure air is as important as pure food, perhaps more so; but good digestion is more important than good food, and good breathing than the purest air, and good circulation than all together.

Question 1st. Will water become unfit to drink if kept in the sleeping room over night? *2d.* Are plants kept in or near a sleeping room an advantage or a detriment? *3d.* Is there any way of testing water, which can be employed by any person, as to whether it is fit for use?

Answer 1st. Water does become unfit for use by standing in a sleeping room, because it is one of the most powerful absorbents of impurities. It purifies the air, and, of course, becomes itself impure. *2d.* Plants in great numbers would possibly injure the atmosphere of a room at night, though it is supposed that they purify the air during the day by using up its carbonic acid. Plants and animals antagonise each other as to breathing as well as eating. The air that supports vegetable life is irrespirable by animals, and vice versa. In other words, vegetables absorb carbonic acid and give off oxygen under the influence of sunlight, while animals absorb oxygen and give off carbonic acid; and it is doubtful as to any reversal of this condition at night. *3d.* There is no way of testing water for these subtle impurities which you mention. As you know, we can determine the existence of minerals, or of vegetable or animal growth in water, but there are impurities, nevertheless, that cannot be reached by any means at our command.

Question 1st. When one has been troubled with hemorrhage of the lungs, will hot fomentations, applied for pain in the side, have a tendency to cause hemorrhage?

Answer. The occasional use of hot fomentations will not be likely to increase the flow of blood to the lungs, or to relax the capillaries, but hot fomentations to the lungs might, if continued a length of time, tend to the production of hemorrhage.

2d. Will you please give the cause and remedy of sleeplessness; a person sleeping often but three or four hours during the night?

Answer. Derangement of stomach and liver is the cause usually. Through these the organic nerves are irritated; this irritation is reflected to the cerebro-spinal nerves, and the brain and nervous system consequently so disturbed that complete rest is impossible. Restore perfect digestion and good action of the liver and bowels, and the sleeplessness will disappear. Eating hearty suppers or retaining the bowels full of fecal matters, often induces sleeplessness.

Question. Please inform me what I can do for my wife; she is troubled with itching of the skin, very rarely can sleep before two or three o'clock in the morning. She lives hygienically, with the exception of tea and coffee, and takes a warm bath each week. She is pregnant, and this itching seems to be connected with the condition. Her health is otherwise good.

Answer. She suffers from derangement of stomach and liver, which causes both the sleeplessness and itching. This derangement is often connected with pregnancy, especially during its first stages. What she needs is improved health,

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and until this is obtained she will be likely to suffer. A wet abdominal bandage worn at night may help her. The dripping sheet, or gown bath, as heretofore described, two or three times a week before retiring, will probably be serviceable. An oil rubbing, that is, thorough rubbing of the body with the hands frequently oiled with olive oil, once a week, is also indicated. Indeed, every plan of building up the health by improving nutrition, is the proper way of relieving this difficulty.

3d. Will water, taken as hot as one can drink it, be beneficial to take just before retiring, and before breakfast?

Answer. Sometimes it will be beneficial and sometimes not. Where the tongue is coated and bad taste in the mouth, hot water before breakfast is desirable, and sometimes it is indicated in the evening. Indeed it is one of the best means of cleansing the stomach of impurities.

Question. What treatment and diet would you advise for one who has extreme dryness of the skin, especially the parts exposed to the air? MRS. O.

Answer. Glycerine is an excellent means of softening the skin, and preventing it from becoming dry and cracking. If there is general dryness of the surface of the body, a thorough anointing with best olive oil once a week, the oil being well rubbed into the skin, is an excellent plan. In other respects, live healthfully.

Question. What treatment do you advise for asthma? MRS. J. C.

Answer. It depends upon the cause of the difficulty; both the predisposing and the proximate cause. We treat patients according to their conditions, and not diseases according to names. The treatment which would be excellent for one patient suffering from asthma, would be bad for another patient sufferiug from asthma, and vice versa. I cannot give you any better advice, unless I know more of the case.

Question. Fistula. Will you please give the best treatment for fistula? H. B. D.

Answer. Fistula indicates a greatly deranged condition of the digestive organism, connected also usually with exhaustion of nerve force. An inflammatory condition of the lower bowel is a concomitant. A surgical operation is frequently necessary in order to allow the parts to be thoroughly cleansed. The use of disinfectants is also indicated, but none of these means can be effectual unless the general health is improved. Restore digestion, build up the nervous system; in a word, get good health, and the fistula will heal under proper surgical treatment. The disease frequently requires surgical treatment just as truly as hygienic, and the two must be combined. Such a patient can hardly hope to recover health outside of a good institution.

Question. Will you please tell me how to cure my little boy of sucking his thumb? MRS. H. F.

Answer. Now that the habit has become firmly established, you will find it a difficult task. One plan is to tie the thumb up, but then he will be likely to use the fingers. Another is to prevent positively the thumb being placed in the mouth during sleeping hours. It is of course more or less injurious to him, and I would advise you to break it up if possible.

Question. How would you treat a case of small-pox? There are several cases ten miles south of here, which are causing considerable excitement in the vicinity.

Answer. If you keep ten miles away from the small-pox you need have no fear of it. I should not worry nor fret about it, and as to its treatment, I will give directions at some future time through our journal.

Question. What do you think of prepared cocoa and kaoka as beverages between meals? J. K.

Answer. Cocoa and kaoka are little if any improvement upon tea or coffee, and are certainly not fit to be used between meals. Medical books place cocoa in the same list with tea, coffee, tobacco and alcohol, and assert that the effects on the constitution are similar in each case. Any one can judge for himself, therefore, as to she propriety of using cocoa.

Question. Chronic Diarrhœa. A girl 15 years of age, weighing 57 pounds, is troubled with diarrhœa, legs aching, dainty appetite, feels lazy, has grown an inch a year for the past five or six years, medium flesh, lives much out of doors, voracious for sugar and lean meat, fond of lemons, also beans, sometimes potatoes. What is the difficulty? Also, what will cure a wen, or something similar, on a lady's forehead? MISS F. N.

Answer. The young girl is suffering from derangement of liver, stomach and bowels, and can be relieved by hygienic treatment. The voracious appetite, diarrhœa, tired, lazy feeling, all point to deranged liver. I would advise hot fomentations over the stomach and liver twice a week, followed by full bath, and every day thorough manipulations of the abdomen, including kneadings and percussions thereof. Manipulations of the whole surface of the body would also be important. The case is one which should be submitted to hygienic processes for a few weeks, when I believe the patient could be restored to good health. For the wen, I know of no cure outside of a surgical operation.

Question. My father has a stone in the bladder and his physician advises crushing of the stone and then the taking of drugs to carry it away. Which would be the proper plan, this or hygienic treatment? W. S.

Answer. Hygienic treatment will not remove a stone already formed in the bladder, or rather, hygienic treatment would be the operation spoken of, but the taking of drugs thereafter is wholly unnecessary. Let the operation of lithotomy be performed, and followed by hot sitz baths and fomentations and the drinking of an abundance of warm water, and the results, I think, will be satisfactory.

Question. Please give the best treatment for mumps. G. B.

Answer. First, patience; second, abstinence from hearty food; third, a hot full bath followed by hot fomentations to the parts. The person should not expose himself in any way. Should the pain be transferred to any other part, hot fomentations or hot water to the parts would be indicated. This treatment may be repeated daily in most cases. The hot fomentations may be employed oftener. If the patient is feeble, however, the treatment must be employed more cautiously.

Would you please give your mode of treating chronic diarrhœa, Asiatic cholera, hypochondria and insanity?

Answer. Each one of these difficulties depends upon derangement of stomach and liver, and hence diet is an important consideration. Restoration of circulation to the surface by the hot bath and thorough manipulation, is also important. The wet compress or abdominal bandage is usually serviceable. In fact, all processes of building up the vital system should be employed, according to the needs of each particular case. Our columns will not admit a full discussion of this subject at the present time.

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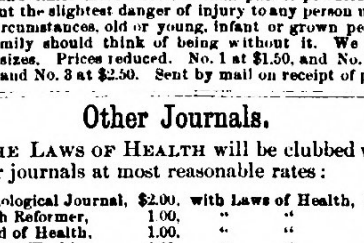

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THE LAWS OF HEALTH FOR 1880.

Nearly two years since this journal was established upon the only correct principle of journalism, namely: that we had something to say that was not well said by any other. For these two years we have been engaged in setting forth truth of the most important character on a most important subject, and as the almost universal testimony of our readers shows, our efforts have not been unappreciated. As a consequence our journal has had a most satisfactory success.

But though we have said many new and valuable things, we have not by any means exhausted our resources. During the coming year we propose that the journal shall so far exceed itself that old subscribers as well as new will be both delighted and instructed. The programme is an attractive one, and we offer the present number as a specimen of what is to be. We mean to spare no labor to place before our readers important ideas in a form easily apprehended by even the careless reader.

We would call attention to the series of articles on FOOD—WHAT AND HOW WE SHALL EAT—the first of which is given in the present number. We believe the series will be one of the most valuable that has ever appeared in any journal of health, and it is the subject upon which the American people need instruction more than upon any thing else. The method of presentation will be popular at the same time that it is scientific, and we believe that men of thought who are competent to reason upon these subjects, will be attracted to this exposition of the true system of diet. Our readers who are interested in the progress of their fellows, should make an extra effort to bring these articles before the minds of the representative men of their communities. Lawyers, physicians, ministers of the gospel, should investigate this matter, and so learn not only how to avoid sickness, but how to develop vigor of mind and body in the highest degree.

The articles ON VENTILATION will be continued and will be supplemented by others on the subject of heating. All thoughtful and intelligent men should read these carefully, so as to be able to secure to themselves pure air, as one of the necessaries of health. In addition, the series on WATER AND ITS USES, will be found exceedingly valuable. The whole subject of bathing, in health and disease, will be discussed, and we doubt not, with a candor and a skill that will be satisfactory to all who follow us from month to month.

Nor have we forgotten our series on INVIGORATION. We propose to continue these until the plans of growing into health by nutritive-cure processes, shall be fully set forth.

These articles by the editor will be supplemented by important ones from other competent writers. Dr. Tenney will continue to supply his best thought to THE LAWS OF HEALTH, and Dr. Price, also, will appear before our readers from month to month. Every month valuable rules for the home-treatment of one or more diseases will be given by a competent physician. Other contributors have promised assistance, so that we believe we can offer to the people a complete round of knowledge on the subject of health and treatment of disease such as can be obtained nowhere else on the continent at any cost. We are willing to be put in comparison with any other health journal in the world.

The terms are as formerly, 50 cents a year, or $1.00 for three subscribers. The long nights are coming, offering the best opportunities for education and improvement, so that we urge upon our readers attention to this matter. WHO CAN SEND US TEN ADDITIONAL SUBSCRIBERS? THE CAUSE OF HUMAN IMPROVEMENT WILL BE GREATLY ADVANCED BY A LITTLE EFFORT in this direction, and I am sure that it will be put forth by our friends.

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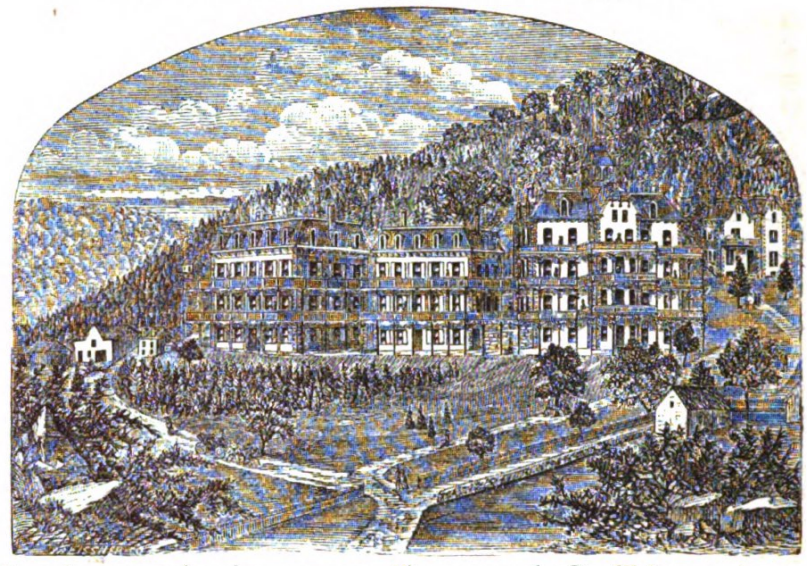

THE above engraving shows progress. Six years ago the Drs. Walter were attracted to this locality by the purity of the air, the beauty of the scenery and the softness and purity of the water. They came as strangers into a strange country, bringing with them only willing hands and stout hearts, and a system of treatment for invalids which differed essentially from all the systems in vogue, in that it undertook to restore health *by the use of such means only as tend to keep people well.* Many years' experience among invalids taught us that the popular plan of curing one disease by producing another is both unphilosophic and unsuccessful; and that a new and different system was urgently demanded.

THE NUTRITIVE-CURE

was the result. By this we mean the production of strength and vigor, and the cure of disease, through processes of nutrition alone. This practice was followed in temporary quarters for three years with most excellent success, by which the propriety of the system, as well as the value of the location, was proved; when we determined to build, and the first building of the engraving was soon in process of erection. In the spring of '77 we moved in, and during the year it was crowded with the friends and neighbors of those who had tested the merits of the system. The following spring the second building was added, and still following, the third, until now the fourth large building is in process of erection, and will be finished the coming spring. Out-buildings have been erected and orchards planted, gardens prepared, and many other conveniences arranged for the comfort and health of those who visit us.

Winter and summer there has been increasing demand for room, and to-day we have to report a large family, who are comfortably quartered for the winter. But we have room for more, and invite invalids everywhere to come and be restored. We can assure them that there is no mistake about the success of the methods. The new circular just issued will be sent to any address, and will give ample references, which, however, can be increased by the hundreds, and the new pamphlet in process of preparation will make such a showing that no one can doubt the success of the methods.

TO OUR FRIENDS.

The great faith which we have in these methods, and the determination to leave nothing undone to prove their correctness, has been the incentive to build. The first building was too small; the second was added and we still found ourselves cramped for room; the third gave us additional accommodations, but immediately we discovered that parlors, dining-rooms, treatment-rooms, were all too small for the enlarged business; and hence, to make ourselves the most convenient and satisfactory institution possible, we have added the new building, at great expense, and on the faith of correspondingly increased patronage. The risk involved would ordinarily be considered great. But we fear not. Truth will win. It cannot be that a system so demonstrably valuable can fail. It is the crying need of the age, and sick people will discover their wants. But

WE NEED HELP.

There are invalids in your communities who would be thankful for a word of encouragement from you; and while you will be doing them good, you will be aiding us, as well as the cause of human improvement. You, yourselves, have no doubt of the greatness of the enterprise, and its value to the fortunate ones who patronize it. Will you aid us in extending our efforts into new fields? During the last year we have been so successful in restoring invalids that we are more and more enthusiastic over the system which accomplishes so great results. Who will send us

THE NAMES AND ADDRESSES OF INVALIDS?

But better still, who will carry words of counsel and wisdom to them. Thousands are dying who need not die; and thousands are daily suffering who need not suffer. The way to health is clearly discernible if the true light is permitted to shine; and all who know of the better way should hold the torch of truth to guide the wandering feet to health and happiness.

Address for circulars and full information,

ROBERT WALTER, M. D.,
Wernersville, near Reading, Pa.

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THE LAWS OF HEALTH.

SUPPLEMENT No. 4, APRIL, 1880.

The Great Delusion.

A Lecture; by Robert Walter, M. D. Phonographically Reported.

LADIES AND GENTLEMEN:—The history of human life on the earth may be summed up as a history of delusions. Every age has had its own. There have been religious delusions, and scientific delusions, and social delusions, and the age of delusion has not yet passed away. I propose at this time to expose one of the grandest delusions of this or any other time; a delusion that is fraught with more terrible consequences than any other in any age It is a delusion which pervades human society throughout the whole world, being quite as common and disastrous in free America as in despotic Russia or oriental China—among the intelligent and educated of the earth, as with ignorant, barbarous or semi-savage nations. It is a delusion which sinks into untimely graves millions of people every year, and makes invalids of millions more. It is that which makes the drunkard, whether he be drunk on opium, tobacco or alcohol; which enthrones Bacchus and enslaves temperance; which makes the poor poorer and the sick sicker; which deluges the world with sickness, suffering and death

This delusion is all the more dreadful because of the fact that upon it, as a basis, powerful systems are established, which claim the allegiance of men, because they are supposed to represent the learning, integrity and accumulated knowledge of the ages. Colleges, innumerable in number and all-powerful in influence, are sending forth yearly thousands of persons to practice upon the credulity of the people, and fatten upon their necessities; and the fact that they are intelligent as to methods, learned in all the lore of the schools, and represent in their persons the culture and wealth of the times, only adds to the terrible consequences of the delusion. It is the same delusion which feeds the rumseller and yearly fills hundreds of thousands of graves with the victims of rum; which makes business for the drug stores, causing men to swallow poisons with the same eagerness that they do food; it not only causes the doctor to be busy, but makes sickness to keep pace with his activity, and disease to multiply in ratio with the increase of physicians. This delusion may be described as

A PHYSIOLOGICAL DECEPTION,

—a trick of the feelings, the appearance of what is not real. Has not the experience of all ages taught us how opposed to each other are *the seeming* and *the real*? "The life is more than the meat, and the body than the raiment." The *hidden forces* of nature are infinitely more of consequence than the *matter* which is obvious to the senses; the living force which animates the bodies of men of more consequence than the bodies themselves; the spirit, hidden in the deep recesses of the unseen, of more account than the visible forms which make up the seen, apparent, obvious, but in no sense the thoroughly real. We live too much in appearances. The physical senses are strong and active, while the hidden powers of conception are feebly cultivated. The less men know, the more thoroughly do they trust the apparent, because it is obvious to the sight, hearing, touch, taste or smell, while the real comes to us only with the operation of the higher faculties of reason, reflection, conception.

Men cannot always trust what they see. One of the first grand delusions of human existence, grew out of a deception of the eyesight. In times gone by, both priest and patriarch, prophet and statesman, declared without reserve that this earth of ours is the only stationary, and central thing; that the sun, moon and stars revolve around it as so many satellites to give light by day and by night, until at length a Galileo arose, and by virtue of reason and reflection, proved not that the sun is the satellite, but rather the centre—that this little, insignificant earth of ours, is a moving attendant thereon, and not the moving power. Thus proving that

WHAT SEEMS TO BE, IS NOT,

and what seems not to be, is.

How we are deceived by the senses upon this point, is an excellent illustration of how we have become victims of the delusion to which I refer. I might continue to show by numerous illustrations how the sense of sight is readily deceived so that *the seeming* and *the real* are not only different from each other, but exact opposites. But I must not content myself with simple illustrations, no matter how apt they may be. Correct statement and logical argument are quite as important, and the truth is better shown through the use of all than of one.

Our delusion, we have said, grows out of a physiological deception. Let me call your attention to a fact of life, which is admitted by all observers: namely, that the functions of life are performed only by the forces of life, operating through organs constructed therefor. Whether we eat or drink, digest or assimilate,—whether we think or feel, work or sleep, it is only through the use of power or powers which are co-existent with life and absolutely necessary to its existence. This power, or aggregation of powers, is variously termed vitality, vital force, vis vitæ, vis conservatrix naturæ, vis medicatrix naturæ, &c. All physiologists, pathologists, physicians and philosophers agree to this statement as representing the plainest and most

OBVIOUS FACTS OF LIFE.

But not only is it agreed that the functions of life in health are performed through the operation of these forces, but it is also conceded that curative operations are carried on by virtue of vital force. Vis medicatrix naturæ is as plain as any fact of life. If a man breaks a leg it is to be placed in juxtaposition, when it will, by virtue of its own inherent power, grow together again; if his flesh is wounded it will heal; if ulcerations or bruises take place, the vital force in the man tends to cure; and as it is admitted in obvious diseases—in surgical cases; so all intelligent physicians agree that it is the vital force in the man that cures him, no matter what disease he may be afflicted with. Whether it be fever, or dyspepsia, or consumption, rheumatism or gout, the vital forces in the organism must perform the healing operations and restore health, if health is ever restored. Now with these facts as

A BASIS FOR ARGUMENT,

we wish to call your attention to an important principle which necessarily grows out of them, namely, that the vigor with which the functions of life are performed, whether it be digestion or breathing, thought or feeling, work or play; whether it be the cure of one disease or the cure of another, depends upon the amount of the vital force as well as upon its mode of use. With vigorous vitality we have vigorous functions, while with feeble vitality we must have feeble functions. With abundance of vital power men will recover from almost any disease; woundings and bruises, pains and sufferings, are endured with fortitude, and health and vigor are finally restored. So the brain thinks, and the stomach digests, and the lungs breathe, and the muscles contract, and the nerves feel, and all the operations of physical life are vigorously and effectively performed just as the man possesses an abundance of vital power. With feeble vitality, on the other hand, we have feeble functions, and possibly difficulty, failure and death. It is evident, therefore, to even a casual thinker, that the possession of vital force in abundant measure, is a very important possession. If life is the most important consideration, an

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abundance of life is correspondingly important. If health is desirable, the power which secures health is to be desired. If the power to do and to dare is to be sought after, it is to be obtained by increase of vitality. Vitality is therefore everything to every man. Without the forces to animate him, he is but a lump of clay, an inert log, a compound of disorganizing materials; but with vitality he is alive, powerful, active, possessed of capacities for happiness as well as misery, of joy as well as suffering, of pleasure as well as pain. The greatness, therefore, of this possession of life power is the true measure of the value of any methods which shall increase these powers. All experiences in life go to show that vital power in the organism may be increased or diminished, according to the habits of the individual. He may grow strong, robust and vigorous on the one hand, or feeble, sick, worn out and finally die on the other, and how to succeed in the one direction while we avoid the other, is certainly worthy of most careful consideration.

The accumulation of vitality or vital force is, therefore,

THE GRAND CONSIDERATION.

Vigorous life is the only life that pays. Skilled labor is always in demand; superior capacity, power, attainments, are always sought after, respected and even worshipped. A horse that can travel a mile in five minutes, may be worth a hundred dollars, but if he can be made to travel it in half the time his value is quadrupled, and for every second of increase in speed the price goes up with marvelous rapidity. Accumulation of power and its concentration to a given object, therefore, is a grand desideratum.

THE PROFESSIONS ARE OVERCROWDED.

it is true, but with Daniel Webster we can say, there is abundant room higher up. First-class men are always in demand. Wealth and fame, power and emolument, position and patronage, will be lavished unsparingly upon all whose capacities for the performance of duties are much above the average. The drone may starve, the feeble may suffer, the pusillanimous may be contemptible, but vigorous health, abundance of capacity and concentrated power will cheer and dazzle and attract both equals and inferiors, and give us position that can be obtained in no other way than by the possession of vital power in abundant measure. With this vital power we have health, but as it becomes depleted, health depreciates and invalidism follows. It may be said in general terms that invalidism means depreciated vitality. The functions of life are carried on, but *not effectively or vigorously*. Painfully and with effort we breathe or digest, or think or feel, slowly and feebly we drag ourselves around, having just enough vitality to save us from complete destruction; but our life is a failure. We are, in a word, *invalid*, good for nothing, used up, and the only true way to recovery of vigor is through the accumulation of vital power. With abundant vital power health returns, and our diseases are healed, our ailments disappear. Accumulation of vital vigor, therefore, is what all men need, whether sick or well; and vital vigor may be accumulated just as truly as wealth. The body is itself a great reservoir of power, and fill it full so that when it is put forth, it may be done intensely, and energetically, and we get the very best results. A pound of energy with only an ounce of intellect, will accomplish more than a pound of intellect with but an ounce of energy. Intensity of action succeeds where sluggishness must fail. To dribble away one's life forces, as men too often do, is to waste them in the most spendthrift manner; while to hoard them up and concentrate, so that when they are put forth it shall be done positively and energetically, is to get the very best results. Let every man decide to be a man or nothing, let him attain the capacities and vigorous powers of manhood, so that he can stand by the side of his fellows, the equal of the best and the inferior of none; and if this power is then well directed his life may be said to be a success. But to drag ourselves through life lazily, feebly, indifferently, half dead and half alive, is a condition which should be rejected by every intelligent man. It is wonderful what a little extra power will do; wonderful how a better thought, a brighter conception, a keener feeling, will come with a little increase of vitality. In a word, we assert that the difference between men in their powers, as to success or failure, is represented chiefly by the amount of vitality which they possess in the organism. But

HOW SHALL WE ACCUMULATE VITALITY?

Here is where men seem never to be able to agree. Here indeed, is where the grand delusion of which I have spoken, is most apparent. The unanimous opinion of man seems to be that vitality is accumulated by spending it; or if this statement is not acceptable, we will put it in a more plausible light; namely, that they seem to think that the chief end of life, is to expend the power which they possess. There is no intelligent conception as to the methods to be employed to improve capacity, I mean vital power, the basis of all success. If a lawyer would reach the highest position in his profession, he imagines it is to be done by the closest study, without reference to the laws of health. The minister acts from the same principle; and he who is the most ambitious is the most likely to fail. So the student at school or elsewhere who, burning up with desire, puts forth extraordinary efforts, only finds himself left behind in the race of life. It is the strong, sturdy, vigorous youth or man, who eats and drinks and has his days of recreation, and who cares for his health, that succeeds. Book learning he comes to have, because a man with abundance of power, can learn easily even from books. And what is more important, he studies the face of nature; has the keenest perception of the facts of life; has innate powers of comprehension which come only through the possession of vitality; and hence whether arguing before a judge or jury, on the rostrum or from the bench, he appeals to the human in his fellows, and succeeds in convincing them of the correctness of his positions. To be a book-worm may not be contemptible, but to exhaust one's life in collating other men's thoughts, while our own power for thought is being appreciably diminished, is the sum of folly. Production is more important than transmission. To originate, combine and produce from our own brains, is of infinitely more consequence than to repeat parrot-like, the thoughts and fancies of others, and the power and ratio of production depend upon the vitality of the man.

So far, ladies and gentlemen, you will agree with me that there is

NOTHING REALLY NEW

or original in these ideas. Thoughtful men everywhere agree as to the importance of vital vigor, whereby to enable us to perform vigorously the functions of normal life, or to restore us to health, if for any reason we become worn out and perhaps diseased. "You need building up" has lately come to be one of the commonest remarks of physicians. Better nutrition, increased functional action of vital organs, improved digestion and secretion are the things to which he bends his energies and exercises his skill. "We must sustain the patient," he says, "save his power," "build up his system."

In these attempts we agree with him. The effort is right, but how does he do it? Just here the delusion becomes most apparent. The physician is misled by appearances and the processes consequently employed reduce vital power rather than increase it, tear down the vital system rather than build it up, permanently reduce functional activity, even though they seem temporarily to increase it, exhaust the patient rather than sustain him, and waste his power instead of saving it. This charge I assert to be true with regard to all drug medical processes, without distinction as to pathy; as well as with regard to many, if not the most, of the hygienic recommendations of physicians. It is true also of the water-and-diet-cure as generally practiced in this country; and

HOW IT IS TRUE,

is worthy of serious inquiry.

The charges are sufficiently startling to demand of us careful examination. There

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is a woeful difference between pulling down and building up, between reducing power and increasing it, between sustaining and exhausting, between saving life and destroying it, and the very possibility that the one is mistaken for the other, makes this subject an intensely interesting one. To suspect when we are blindly swallowing these nauseous drugs that they are exhausting our life forces; that when we confidently place ourselves in the hands of those who should save us, they are ignorantly destroying us, or our chances for health and successful work hereafter, is sufficiently alarming to induce prompt and searching inquiry. The possibility of error, of delusion, is a dreadful possibility; and yet the delusion exists, and is of monstrous import, as we have before asserted. The delusion consists in a deception of the senses, which makes us confound the use and consequent expenditure of strength, with its manufacture and accumulation, whereby we are caused to exhibit—to bring to the surface by exciting methods, what little vitality we have, instead of saving through rest and accumulating it. Living by sight and not by faith is so common that both physician and patient immediately become alarmed if for any reason the usual vigor of the patient is diminished, and as a consequence violent and disastrous methods are employed to induce the organism to put forth and yield up whatever vigor it has. If, even by the use of a deadly poison, a temporary effect can be produced, the observer is pleased, and he repeats his doses from time to time as long as the vital resources hold out. So intent is he upon appearances—so pleased with temporary and apparent effects—that he forces into the organism that which he knows must be destructive to it. Strychnine, arsenic, alcohol, quinine, prussic, muriatic, nitric, and other deadly acids, calomel, opium, &c., are used with alarming freedom and deadly effect, and the insane faithlessness which can never believe in the existence of vital power in the organism, if it cannot be seen, is at once the cause and the excuse for a repetition of the doses which finally end in exhaustion and death. No matter that common sense would say, that which destroys life cannot save life, that which exhausts vitality is not increasing vitality, that which is ordinarily deadly in its effects upon the organism cannot really be salvatory, the process goes on needlessly, recklessly and wastefully, satisfying only the thoughtless physician and anxious friends, who live and hope and trust in appearances; who have no faith, no confidence, no belief in that which they cannot see and feel. And yet it is the vitality in the man which saves him, not the appearance of vitality. It is the vis medicatrix naturæ, and not what seems to be vital vigor. Vitality itself is unseen, intangible, and is never made apparent except through its effects.

The Process of Recuperation.

bears a similarity to feebleness, just as expenditure of vitality seems to represent actual strength, and medical men make the woeful mistake of confounding the two. A few years ago Louis Napoleon was called upon to undergo a surgical operation, and the physicians agreed that the only question as to recovery was whether or not his strength would hold out; so they fed him brandy in frequent and liberal doses to sustain his strength, and lo, he died. The physicians satisfied themselves that the brandy sustained him because the pulse remained strong, or seemed to, up to within a few minutes of his death, and yet with a strong pulse and vigorous vitality, as they believed, he suddenly and mysteriously collapsed. Our explanation, as you will guess, is that the brandy called forth, exhibited, made apparent, and at the same time exhausted his vital resources and left him a corpse. He was not strong up to within a few moments of his death, for every dose was doing its work of exhaustion, and the last straw had broken the camel's back. The delusion cost Louis Napoleon his life, embolism of the cranial arteries being the immediate cause, but this embolism always indicates exhaustion.

An equal delusion existed in the case of Prince Albert, husband to Queen Victoria. Suffering from gastric fever, the physicians declared that his system must be sustained, and they fed him alcohol frequently and liberally, and lo, he died. They knew that the alcohol sustained his strength, because the appearances were all in their favor. The pulse rises, nervous activity is induced, muscular tension is increased by these doses; but on the principles we have set forth, does not any reasonable man concede that the patient is being exhausted, not built up or sustained? Prince Albert the younger, a few years later, suffering with the same disease, was treated in the same manner, and we hourly expected his death; but he recovered; and why? He was sustained on brandy, as his father had been, until the physicians despaired of his recovery, when a new physician was called who prescribed, not more brandy, but milk, while the brandy was withheld. This wonderfully strengthening substance was given him no more, while simple cow's milk was substituted, and lo, he recovered. The explanation is clear. The expenditure which they had imposed upon him was stopped, and vitality accumulated, and health followed. They fed him with food instead of exciting him with medicine, and life followed close on the verge of death.

That physician and those friends, who become alarmed at the feebleness and perhaps inactivity of the patient, and prescribe drugs to sustain his vital powers, are just as wise as the mother would be to become frightened because her babe closed its eyes,

Dropped Into a Deep Sleep,

and rested calmly. There is a similarity between sleep and death. So there is a similarity between recuperation and exhaustion; but sleep need no more end in death than need recuperative processes, end in exhaustion. That mother would be justly rated as a fool who would prick, or pinch, or whip her child, to keep it awake and active, for fear it would die if its powers sunk to rest; so the physician who cannot allow the vital resources of his patients to rest and accumulate, is a very fool, the victim of a woeful delusion.

Every process of stimulation known to man is a delusive process. Whiskey makes the drunkard feel better, and he indulges and repeats the dose from day to day until he fills a drunkard's grave. Tobacco sustains the nervous power of the smoker, and he continues his indulgences. Arsenic and strychnine opium and haschish operate in a precisely similar manner, deluding their victims to death.

In precisely the same way the physician is deluded in the use of his drugs. He mistakes the appearance of strength for the possession of strength, he mistakes the feeling of strength for the actual accumulation of vitality. It is an unfortunate thing for man that we have no means of measuring the exact degree of vitality in a human organism. One man seems to have it, and yet under a little pressure, he is exhausted and dies. Another man seems to have little, and yet he endures everything and lives. We find some one bloated with beer or stuffed with impurities, until the skin is almost bursting, and imagine that his rotund appearance represents vitality. We find another who is lean and thin and tough and wiry, and a casual observer might suppose that he has little vitality, but place the one by the side of the other in the race of life and see who wins. Not all that seems is real. Two men start out in a walking match, in which the actual test is the power of endurance. One man seems less vigorous than the other, and yet he leaves mile after mile behind him, until two, three, four, and five hundred miles are passed, while the other man, starting out fair, and apparently vigorous, is soon exhausted and gives up the contest. Who could tell beforehand which possessed the most vital vigor? The results determine pretty correctly the facts, but we have no means by sight or touch, or taste, or smell, to determine the degree of vitality in any human organism. When a man drinks alcohol and seems to have more strength, that is no evidence that he has more strength—that the alcohol has really given him anything; another man who does nothing of the kind, but eats plain food, drinks cold water, and shows no great activity or vigor for the time, may be gaining in strength continually. The fact of gain or loss is only to be determined by the future capacity of the parties, and

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what this is, is often impossible to determine. Facts are often delusive. We cannot always trust our senses. Mistakes, error, deception, are among the commonest occurrences of life; and hence we cannot be too careful in our

Adhesion to Sound Principles.

One great mistake of the schools is to suppose that good can come out of evil—drug-medication is established upon the fundamental fallacy of doing evil that good may come. But the good does not come. Health cannot come through the use of that which destroys health. Poison does not and cannot sustain vitality; because the very term implies the destruction of vitality. To poison a patient because he is sick is a part of the 19th century grand delusion. To drink alcohol, smoke tobacco, eat opium, are additional parts of the same delusion, and the one practice is justified or condemned upon the same principles as is the other. The physician prescribes drugs because the patient is made to feel better; because his eyes and ears tell him that he is better; the drunkard drinks whiskey, smokes tobacco, eats opium for the same reason, and with quite as great wisdom.

But let us argue this subject still more closely, and elucidate the facts more plainly. The question before us is, accumulation on the one hand, and expenditure on the other, and

Which is Which?

Herein is the dispute. The physician insists that his drugs recuperate the patient; that they sustain his vitality, build him up, give him strength and vigor; while we say that they cause expenditure of vitality and tend to exhaustion of his vital resources. This is a very important difference, and the symptoms or appearances cannot be the same in each case. Let us examine these appearances and see if we cannot determine what they mean and what the truth is. To this end our first proposition is, that *the feeling of strength is coincident with the expenditure of strength, while on the other hand, as recuperation takes place the feeling of strength is correspondingly absent.* All must admit that expenditure is being carried on during the hours of work when mind and body are most active and vigorous; while, on the other hand, recuperation takes place during sleep, when activity, the feeling of strength and capacity, lie entirely dormant? Vitality should be greatest, and under ordinary circumstances, is most abundant in the morning after the night's rest; and yet, who feels the strongest at this time?

In the morning, the man in health rises, perhaps a little lazy, inactive, with little feeling of capacity, but as duty presses upon him from hour to hour, his strength comes, his powers seem to increase, and through the day he attains to meridian vigor, which does not always decline even with the afternoon, particularly in the case of persons who, being in vigorous health, are nevertheless given to stimulation. All human experience proves that under ordinary circumstances strength comes with duty. The human organism may be likened to a barometer; with increase of pressure from the atmosphere the mercury rises, and when the pressure is withdrawn it sinks again. So the vital powers of a human organism rise as duty, labor, excitement, and the causes for expenditure press severely upon it; but as duty is withdrawn, labor is relinquished, excitement, suffering or pain are foregone, the appearance of vitality declines, and it sinks into the normal condition. No barometer ever invented responded more sensitively to the changes in the atmosphere, than does the vitality of a human organism to the processes of expenditure operating upon that organism. Does a speaker possess the same apparent vigor in the beginning of his speech, that he does as he warms with his argument? As the greatness of his plea presses upon him, does not vitality respond, and intensity of thought and action follow? So with work. A laborer begins lazily and slowly, but as he becomes warmed to his work, his whole system responds, and vigor, intensity and action are exhibited. So in times of danger or excitement; strength comes with the danger and with the excitement. A man may be sleeping, tired, lazy, inactive, having nothing to call forth his energies, but let

The Cry of Fire

be given, it having become known that the building above him is being burned, and how his strength comes! What superhuman exertions he is enabled to put forth! What intensity of thought and feeling, made necessary by the sudden change of circumstances! A man may be feeble, unable almost to leave his room, but let his life be threatened, and what wonderful power he puts forth! So too, under ordinary circumstances, a person may be quite feeble apparently, but let an insane fit take him, and what marvellous vigor he exhibits!

How are all these facts accounted for? Is it not to be done by considering the expenditure of vitality to be one and the same thing with the appearance of vitality? Is the man recuperating or being exhausted when he is fighting fire? Is he getting stronger or weaker, in his insane attacks? Does work, his duties, bring him strength and vigor, or do they only show forth that which he possesses? Must not every intelligent man agree that the appearance of vigor—the exhibition of vigor—is always coincident with the expenditure of it, and not with its accumulation. What is true of work and worry, of excitement and labor, is true when we come to the exhibition of destructive agencies within the organism. Apparent strength comes to the man when you feed him alcohol, just as it comes to the maniac when his disease is upon him. Strychnine makes him strong in the same way that the cry of fire does, Prussic acid, nitric acid, and the other deadly compounds, but call up and exhaust his vital resources, as does danger or labor; they do not in any sense recuperate them. Alcohol, strychnine or other deadly agencies, cause the vital forces to rise—apparently increase in the organism just as pressure of the atmosphere causes the mercury to rise; but withdraw the pressure, and both mercury and vitality subside. Alcohol strengthens men just as excitement does; but more effectually, because more destructively.

Now, let us return to the subject of recuperation, and examine the processes thereof. Sleep is

The Grand Representative

of this, and the necessity for sleep grows out of the fact that the activity, vigor, excitement, or labor of the day, have caused expenditure of the vital forces, and recuperation must take place or exhaustion follow What is the condition of sleep? Is it not total cessation of action of the mental faculties, those great organs of expenditure? Does not the muscular system become inactive; the heart's labor reduced to a minimum; the lungs feebly operative; the stomach almost or wholly inactive? In a word, the whole of the vital operations are reduced to the lowest possible point, in order that through rest, recuperation of the vital forces may take place. At this time is there any feeling of strength? Suppose that a man should awaken in the night and feel strong and vigorous, would he sleep any more? Would he continue to recuperate? Or would that very feeling prevent any further sleep or recuperation? On the other hand, if recuperation is to continue and he should by chance wake, does he not feel lazy, comfortable, and disposed to take another nap, and so continue until perfect restoration is accomplished? Who has not experienced, through being called up in the night, something of the torpor, inactivity and incapacity of the voluntary system during recuperation? How dull, feeble, half-awake he is; scarcely able to walk; hardly competent to comprehend what may be said to him; his hands have no power; his system generally enfeebled, and yet I verily believe if a doctor were present, he would give him a dose of strychnine to rouse him, for fear that unless something were done, his powers would never come again. Who will assert that activity, vigor, labor represents increasing vitality, while inactivity, and apparent feebleness show exhaustion?

There is

Another Point of Observation

which must not be overlooked. While it is true that recuperation takes place

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chiefly during sleep, and expenditure during the season of activity, it is nevertheless to be remarked that no clear line of demarkation exists between the two. There is always some expenditure even during the quietness of a profound slumber, and some recuperation going on during severe labor. All that we claim is that the expenditure is chiefly coincident with vigor and activity of body; while recuperation chiefly takes place during those hours when the varied faculties have sunk into slumber. In other words, recuperation and expenditure are both being carried on, but while recuperation is, nevertheless, chiefly performed during the hours of sleep, when the strength has subsided; expenditure is chiefly accomplished during the hours of activity, when the person is apparently the most vigorous.

Now let us pursue this subject a little further. There are evidently two sets of functions going on in the organism all the while, the cardinal functions and the recuperative. This is true of the organism as a whole, and of each individual organ of the body. The cardinal function of an organ is the obvious, and first function, as for example, respiration by the lungs, digestion by the stomach, secretion by the varied glands, &c.; while the recuperative function is that which is necessitated by the expenditure of power in carrying on the cardinal function. Of course every operation implies the expenditure of vital power, and hence recuperation must take place or exhaustion would follow. It is evident, therefore, that these two sets of functions exist for, but nevertheless are opposed to each other. The existence of the one necessitates the existence of the other; and yet both use, appropriate and expend vital power, and, therefore, whenever for any reason vital power becomes depleted or reduced, one or the other or both of these sets of functions must suffer as a consequence If the cardinal functions, feeling, motion, thought, will, even breathing and digestion, can for a time be partially suspended, recuperation may be able to take place vigorously and effectively; but if, for any reason, there is great mental or physical activity and vigor, as when under the influence of labor, excitement or stimulating medicines, recuperation cannot take place vigorously, if at all; and hence there must follow either chronic invalidism, or exhaustion and death.

Which it shall be,

Rapid Recuperation or Vigorous Cardinal Function,

it is the province of the physician to decide; and he does decide too often to the destruction of the patient. The cardinal functions are the obvious, seen, apparent ones, to wit: breathing, digestion, circulation, secretion, thought, feeling, will, sensation, motion; while the recuperative functions are those silent unseen operations that take place beyond the reach of our senses, their very existence being known not by observation, but through reason; and as the physician is guided by appearances, and not by reflection or reason, he interferes to break up the recuperative process already going on, by making a positive demand for increased exhibition of vitality in the cardinal functions. He feeds the patient *nux*, not because it supplies any vitality to the muscular system, but because it improves the cardinal functions of the muscular system by inducing increased expenditure of vitality through it; he prescribes calomel, not because the calomel furnishes any power to the liver, but because it increases the cardinal functions of that organ, while it breaks up or reduces the recuperative function. The nervous system also must recuperate, and while this process is being carried on vigorously the nerves are feeble and unsteady, but a little alcohol will break up or greatly retard the process of recuperation at the same time that steadiness and vigor are induced.

Now, inasmuch as the cardinal functions are opposed to the recuperative, so that when the vitality of the general system is depreciated from any cause, both cannot be carried on vigorously at the same time; and as the feeling of strength represents vigorous cardinal function, is it not reasonable to suppose that debility, feebleness, inaction, means vigorous recuperation; in other words that the vitality is not being expended in performing the ordinary functions because it is being employed in recuperative processes.

That this is the truth we have demonstrated over and over again. Men are recuperating most vigorously when they rest most fully, and they rest most fully when the feeling of vigor, strength and capacity is absent. The more they sleep the quicker they recover, and if they cannot sleep abundantly, the next best thing is to approach nearest the condition of sleep, even when wide-awake. As nervous action is the grand means of exhaustion, so inactivity of brain and nerve is the grand process of recuperation. The physician does not know what a fearful injury he does his patient by giving him tonics; he does not realize how exhaustive is the use of stimulants. A tonic for the stomach simply prevents recuperation of the vital energies of the stomach. A stimulant for the liver, whether in the form of calomel, quinine or podophyllum, if continued, means after a time exhaustion of the vital forces of the liver; which explains why, after the freest use of calomel for a few generations,

Everybody Suffers from Torpidity of Liver.

And what is true with reference to one organ of the body is true of each organ, and of the body as a whole. Disease has always increased in exact ratio with the use of curative agents; and whenever a supposed specific has been found, actual experience shows that the disease increases correspondingly. As liver diseases increased with the use of calomel, so special debilities have increased with the use of special tonics; and general debilities with general tonics; and nervousness in precise ratio to the use of nervines. Forty years ago purging and bleeding were the prevailing methods, and blood and bowel diseases were the prevailing diseases, until with a change of practice to tonics and stimulants, blood and bowel diseases steadily subside, and nervous diseases, according to best authorities, increase most alarmingly. There never was an age, or a country in which nervous debilities were so general and severe as at present in America, and this immediately following the supposed discovery that alcohol, strychnine, &c., sustained nervous power and increased vital force. In the same way the tobacco-user soothes his nerves by his indulgences, but he continually grows more irritable; the tea-drinker cures her headaches by tea, but they increase upon her continually; the use of chloral, opium, bromide secures to the patient sleep, but sleeplessness increases accordingly.

And so the Delusion Grows.

The more we are cured the worse we are. The surer the medicine the more general and severe the disease. Panaceas and specifics have been advocated and used to a wonderful extent, and yet chronic diseases, which are truly termed diseases of debility, resulting from failure to recuperate, have never been more frequent than now. It is a popular fallacy that men grow weaker because they grow wiser; they have grown weaker because medicine has been cultivated as a science, and drug-poisoning become an established habit; in other words, men have been too busy to rest, and too faithless to recuperate, until debility, bordering on exhaustion, has become the accepted condition of human life. Where will it end? Are the leaders of thought too busy to examine this subject or too proud to acknowledge their error.

What is said of the use of medicines is equally true of all other stimulating processes, whether by food or drink, bathing or exciting emotions or sensations.

Recuperation Must Come Through Rest,

not excitement; and the highest order of medical practice is exemplified in securing the conditions for rest. There is no peace to the wicked; so there is no rest to the transgressors of natural law. Obedience is the first condition of cure; and health must come only by living healthfully, and waiting patiently until the vital forces are sufficiently accumulated to allow vigorous functions in all the departments of life. With abun-

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dance of power we need no stimulant; while if the power be deficient, the stimulant only adds to the difficulty, and leads along the downward road to destruction.

But we must close a discourse which has grown already beyond our intention, and our only excuse for detaining you so long is the importance of the subject, which is second to none relating to physical life.

WE insert the following, never before published, as certifying to the truth of the GREAT DELUSION. The gentleman, though a supposed incurable consumptive, is still in quite comfortable health:

MOUNTAIN HOME, Nov. 26th, 1878.

DR. WALTER:

My Dear Sir:—Before I leave your institution, I want to state briefly the great benefit that I have received from your treatment. You will remember that when I came to you I was suffering from the most profuse night sweats imaginable—my pulse was never less than 125 per minute, and I was living chiefly upon quinine and alcohol, which had been prescribed for me as a last resort by several of the most noted allopathic physicians in the country. My weight at that time was 112½ pounds.

I have been with you about three months. I weigh to-day 132½ pounds. I have not the least semblance of night sweats. My pulse is about 90 per minute, and since I have been under your treatment, I have not taken one drop of stimulus of any kind.

My strength has increased even more than my weight, and to you I give the credit of it all.

Very truly, yours,

JAS. ROBT. OSBORN.

A Remarkable Case.

The patient, a medical officer of the United States Navy, on the retired list, so considered it himself, and wrote a complete history of it, of over 200 pages manuscript, for the purpose of bringing it in detail before the medical profession of the United States. The following letters, written by him, which we are permitted to use, will explain sufficiently for all practical purposes. An important point to be noted is the fact that the patient was

CURED BEFORE HE KNEW IT.

That in accordance with the principles laid down in our lecture herein published, the process of recuperation employed, was more real than he imagined; in a word, that the real and apparent were opposed to each other; and while he was reduced, depleted, exhausted, and life rendered a burden, by means which had seemed to be good, he was cured of his particular ailment by means which might have appeared totally inadequate.

THE PERMANENCY OF RESULTS

is to be noted. We regret that the doctor did not remain with us longer and be relieved not only of his nervous irritation and sleeplessness, but of all possible ailments, as he could have been by a little longer patience.

UNSOLICITED TESTIMONY ON LEAVING US.

MOUNTAIN HOME, WERNERSVILLE, PA.,
September 1st, 1877.

DR. WALTER:

Dear Sir:—On the eve of my departure from this delightful retreat, it affords me great pleasure to give expression to the feelings which are now uppermost in my breast. Two years ago I was attacked with insomnia, pure and simple, without any organic complications whatever. After having taken Bromide Potassium and Chloral, and done such other things as were deemed advisable, for six months without benefit, in fact, with positive injury, I consulted a distinguished allopathic physician, who prescribed, among other things, Bromide of Lithium. At the end of two months I found myself in a state of nervous horror from which I could see no outlet but the grave, for which I unceasingly prayed. It did not please God to grant my prayer, and in quiet submission to his will, I struggled and suffered on, resolved, however, to take no more nervous stimulants, which could only serve to reduce me to a more deplorable state of nervous wretchedness. Being directed by a merciful Providence to this Mountain Home, which has been to me truly a place of sweet repose, I reached it on the 14th of July last, sleepless, irritable, excitable and sensitive to the last degree. In the short space of seven weeks a wonderful change has taken place. I can now sleep some five, six or seven hours a night, the irritation and morbid sensibility have disappeared and my old time energy and cheerfulness are beginning to return. Naturally one will be disposed to inquire what has been the cause of this wonderful change in so short a time. In answer I reply that this *Home*, situated in the midst of charming mountain scenery, overlooking a beautiful valley, in a salubrious climate, far removed from the noisy, dusty, heated thoroughfares of man, presided over by kind and sympathizing physicians, ever ready to respond to the cry of distress, and skillful to administer relief, and offering a treatment based upon the soundest physiological principles, it cannot but fail to afford to the careworn, pain-racked, drug-poisoned invalid, every possible advantage his case can require, and such it has done to me. I firmly believe if I could remain here a few months longer I should be entirely restored to health. I bespeak for my accommodation the room I now occupy, during my next visit to the Home.

With a greatful acknowledgment of the kindness and attention I have received from both you and Mrs. Walter, and with my best wishes for your happiness and success, I beg leave to subscribe myself yours, most truly,

JOHN THORNLEY,
Med. Dr., Retired List, U. S. N.

ENTHUSIASTIC REVIEW OF THE FIRST SUCCEEDING MONTH.

CHARLOTTSVILLE, VA., Sept. 24, 1877.

DR. WALTER:

Dear Sir:—I am vain enough to believe that some of the members of your interesting household will feel something like a visitation of a phantom when they are informed of the contents of this letter. Indeed, one of my kind friends, Miss Freeman, expressed a desire to hear from me after my return home, and I venture to say that even you, before whom a crowded throng of invalids is constantly passing, and in whose future history you cannot be expected to feel a peculiar interest, will not be altogether indifferent when you ascertain what I have to say. I will not be so unreasonable as to inflict upon you a detailed account of my movements, sensations and experiences after we parted. It will be enough to say that I passed through some exciting scenes in New York which cost me one sleepless night; that I took a severe cold by exposure during a sudden change in the weather, from which I have just recovered; that after three days of the most unpleasant weather I ever experienced in Philadelphia, during the last of which my feet were soaking wet all day, I traveled all night, sleeping but little, and finally reached home on Saturday, the 1st inst., my family being on the tiptoe of expectation of my return. I have now been home sixteen days, during which I have not lost a single night, my sleep being calm, refreshing and abundant, and my health has been steadily improving. As for the Bromide of Lithium, which I took eighteen months ago, after a tremendous but unavailing struggle with the vis vitæ, vis medicatrix naturæ, or vitality, whatever it may be called, it seems to have given up the contest, thrown up the sponge, and incontinently left the field. The old-time elasticity of step and cheerfulness of temper have taken the place of apathy and gloom, and the sunbeam of happiness again irradiates my hearthstone, where so lately all was darkness and despondency. My friends and acquaintances, astonished at the surprising change effected in so short a time, eagerly inquire where I had been and what I had done to produce such an effect. What else can I say than that I had been at Drs. Walter's Mountain Park, where diseases are treated and drug poisoning eradicated. My family are all agog about your home, and begin to say what they are going to do next summer when there, and some of the poor invalids I meet are so much excited by the accounts I give that I would not be surprised if you were soon to encounter a raid from our little town. I am more dissatisfied with my memory than anything else. I have forgotten the name of your little daughter. Should you ever write, please give it to me. With kindest regards to Mrs. Walter and all friends,

Believe me yours, &c.,

JOHN THORNLEY.

CHARLOTTSVILLE, VA., May 27, 1878.

DR. WALTER:

Dear Sir:— * * * * I write now to say that you are at liberty to make any use of my testimonial of last summer you may please. Most sincerely do I hope you may find it of use to you. I am happy to say my health continues to improve. I was able to sleep naturally while in Washington, through the greatest excitement and anxiety, and now that my mind is at ease, and I am again enjoying the quietude of my own home, I sleep better than ever. My pecuniary circumstances will render it impossible for my family to leave home this summer, and even I must try to weather the heat myself. With kindest regards to your family and my best wishes for your success.

I remain yours truly,

JOHN THORNLEY.

A FEW SELECTIONS FROM HUNDREDS OF RECOMMENDATIONS.

THE LAWS OF HEALTH is the best of the kind I ever read. * * * * Every family ought to have a copy. HENRY N. MOYER, Ohio.

I regard it the best publication of its size in America. THOS. POWELL, Indiana.

To review THE LAWS is to read it again in toto. I think it will have a healthy old age, and will not wrinkle or curl up when its years are many. ROBERT FRASER, Ontario.

A noted physician, whose name we are not at liberty to use for obvious reasons, declares THE LAWS OF HEALTH "the only journal of health in America that can truly be called an original and really valuable work. It must succeed."

"WE found your prescribed treatment for sprains in the last supplement very efficacious in the case of a neighbor whose leg had been lame for six weeks so that he could not walk on it. In spite of medicine and liniment he grew worse until he seemed almost paralyzed, but your treatment has made him walk with the slightest perceptible limp." C. C.

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A little knowledge is often worth as much as life; and

"Truth is perilous never to the true,
Nor knowledge to the wise, but to the fool,
And to th false, error and truth alike."

With this journal and supplement, making in all 16 pages, agents should have no difficulty in securing hundreds of subscribers. Terms and sample copies sent to all applicants.

Address,

ROBERT WALTER, M. D.
Wernersville, near Reading, Pa.

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ARE THESE THINGS TRUE.

Who are better qualified to speak of the value of our work than the first medical men of the country?

Read the following

OFFICIAL CORRESPONDENCE.

WAR DEPARTMENT—SURGEON-GENERAL'S OFFICE,
Washington, D. C., March 24, 1880.

DR. ROBT. WALTER, Wernersville, Pa.:

DEAR SIR. Will you please send me one copy of all the numbers of THE LAWS OF HEALTH that have been published. Send bill, and I will remit by first mail. Very respectfully,

EDWARD SHAW.

REPLY BY DR. WALTER.

DRS. WALTER'S MOUNTAIN PARK,
WERNERSVILLE, NEAR READING, PA., MARCH 26, 1880.

EDWARD SHAW, ESQ.,
Surgeon General's Office, Washington, D. C.,

DEAR SIR: As per your request, I mail you such numbers of THE LAWS OF HEALTH as I am able to. I regret to say that the first volume has been exhausted, and we cannot supply any further numbers. I have a few copies that will be bound, but even these have been mostly ordered, so that I am unable to do better than send you volume 2 from the beginning. The price is 50 cents, which I shall be pleased to have you remit. I am Yours very truly, ROBERT WALTER.
Per M.

[SECOND LETTER.]

WAR DEPARTMENT—SURGEON-GENERAL'S OFFICE.
Washington, D. C., March 29th, 1880.

ROBT. WALTER, M. D., Wernersville, Pa.:

DEAR SIR: Your favor 26th, also Nos. 1—11, Vol. II, of "LAWS" are received. I enclose 50 cents in payment. Will you please mail receipt in this envelope. Very respectfully yours,

EDWARD SHAW.

P. S.—I should be very glad to obtain a complete file of the LAWS for the NATIONAL MEDICAL LIBRARY. Would pay an extra price for a copy of Vol. I. *Please try to oblige the Surgeon-General by supplying a copy. Some one might be willing to part with the volume* FOR DOUBLE PRICE. Yours, E. S.

We claim nothing for this correspondence except that it is evidence that the "LAWS" has excited interest in men in high positions. What this interest is we are not prepared to say; certainly do not feel at liberty to go behind the record; and we publish it only because it does credit to the head and heart of the Surgeon-General.

Is the Surgeon-General prepared to endorse the statement of an eminent physician made elsewhere, that

"THE LAWS OF HEALTH is the only journal of health in America that can truly be called an original and really valuable work."

The fact that there has been such an enthusiastic demand for the back numbers that they are exhausted seems to argue that our work is not unappreciated. Learned men in all the professions are earnest readers, and we are preparing for a greatly increased subscription list for Vol. III, which will, we believe, be the best of all.

WHO WILL GO WITH US FOR ANOTHER YEAR?

Knowledge is power; and self knowledge the most important of knowledge. And THE LAWS OF HEALTH is an exponent worthy of its name. It teaches not so much the old, well-known truth, dressed up in new forms, as

NEW TRUTH, NEW IDEAS, NEW THOUGHTS.

You cannot afford to be without them; no thoughtful man can, whether he be physician or layman, in vigorous health or an invalid.

IF EVERY INVALID IN THE LAND

would subscribe for the journal and study it, death would be robbed of thousands of victims; and health and happiness be immeasurably increased. Will our friends call the attention of their neighbors to it. We will send specimen copies to any persons who desire to aid in extending our subscription list, if they will inquire therefor. Address,

ROBERT WALTER, M. D.,
Wernersville, near Reading, Pa.

THE REVOLUTION BEGUN.

"It moves nevertheless."—*Gallileo.*

It began, as far as the writer is concerned, over twenty years ago, when the following truth flashed like light out of darkness across his mind, viz: *There must be a way in which, if a man live exactly right, he will grow into health.* Few men, professional or otherwise, in that day would have admitted the correctness of the idea; and yet it seemed to us so self-evident that we resolved to devote all our energies to the discovery of the way. And after 20 years of hard and anxious labor, we are able to discover no sounder basis for what we conceive to be a mighty and advancing revolution in the medical practice of the day, as described by the term NUTRITIVE-CURE.

A most complete and violent revolution in the medical thought and practice took place over twenty years ago, and though the practice was not much improved thereby, the light was nevertheless beginning to dawn, and the truth, which seemed a wild dream, has grown mightily in these years. A quarter of a century since *depletion* of the vital energies by purging, bleeding, blistering, &c., was conceived to be the scientific way to health, until larger experience seemed to prove that the plan was utterly destructive, and that the very opposite practice, stimulation—or what is called *sustaining methods*—is the only proper way. Then came alcohol, quinine, arsenic, strychnine, Prussic, muriatic, nitric acids, &c., which, though not less depleting than bleeding or purging, are used on the very opposite theory, and hence, though the results of the practice are the same, the light has partially dawned, and now intelligent practitioners are in an excellent frame of mind to accept the true practice.

THE REVOLUTION IS ADVANCING,

and our lecture herein published will give it a new impulse. It will appeal most forcibly to intelligent medical men, and bring new light to thousands. It is believed that it will be ordered largely by the friends of Health Reform, and hence 15,000 copies will be ready for use. Every reader of this journal should call the attention of the neighboring physician to it and supply him with a copy.

None are more interested in these things than experienced and candid medical men. This may not be true of simple graduates, who are practitioners to make a living, but we refer to the more intelligent and studious class, whose opinions are worth having. Evidence is continually recurring that such persons have become interested in our work and are seeking fuller information. The correspondence with the Surgeon General's office, cited on this page, proves this, as well as letters which we frequently receive from medical men throughout the United States asking advice. Two old-school physicians have, during the winter, placed their wives under our care, and one, a practitioner of forty years' experience, has sought our advice and prescription for his personal use. Others advise their patients to us. All of which betoken

THE ONWARD MARCH OF EVENTS,

that must lead to the noon-day sun of truth. These testimonials by physicians are evidently not the result of any sympathy for us or our methods, but a recognition of the probable truth of our positions. For while we are always respectful to the members of a learned profession, we have been unsparing in our criticism of their system. Our object is the truth and only the truth, and to this end we seek no favors, ask no indulgences and court no official recognition. Who are with us? Shall we march in the van and reap the first and greatest rewards of victory, or be laggards, camp-followers and cowards in this great battle for the right? Shall we accept cheerfully the inevitable destiny of this truth, or opposing its march be borne down in the tide of progress and crushed to oblivion? The destinies of men are in the hands of the Eternal, but each man is nevertheless the architect of his own fortune.

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