The Health Reformer.

NATURE'S LAWS, GOD'S LAWS; OBEY AND LIVE.

VOL. 10. BATTLE CREEK, MICH., AUGUST, 1875. NO. 8.

THE HEALTH REFORMER,
PUBLISHED MONTHLY AT
Battle Creek, . . Michigan.

Terms: ☞ One Dollar per Year, invariably in Advance.
Address, HEALTH REFORMER, *Battle Creek, Mich.*

Infirmities of Speech.

WHAT is necessary in order to our communicating ideas by speech? It is necessary, first of all, that ideas call up their appropriate symbols; secondly, that we remember how to say words; and, thirdly, that our organ of speech be entire—by which is meant, the whole of the muscular apparatus which is brought into action when one articulates.

Now, each of these three capabilities is liable to injury from disease. When the first is affected, the patient forgets words, or uses wrong words, in which a connection with the right ones may be more or less traceable. In the second case, an individual may have lost speech entirely, or he may retain a few words. It is no use helping him out; having forgotten how to use words, he cannot repeat them when they are used in his hearing. In the third case, there is paralysis, it may be, of muscles of the mouth, of the tongue, the larynx, etc. This last form we will exclude from consideration here. The two former constitute the disease called *aphasia* (as at least understood by some writers), and the study of it makes us acquainted with some curious facts connected with the working of that wonderful organism with which we have been endowed.

There are well-authenticated instances of persons who suddenly found that they could not remember their own names. An embassador at St. Petersburg was once in this case when calling at a house where he was not known by the servants, and he had to apply to his companion for the necessary information. The names of common things are sometimes strangely forgotten. The wife of an eminent jurist who consulted Dr. Trousseau, of Paris, told him that her husband would say to her, "Give me my—my—dear me! my—you know," and he would point to his head. "Your hat?" "Yes, my hat." Sometimes, again, he would ring the bell before going out, and say to the servant, "Give me my um—umbrel—umbrel, oh, dear!" "Your umbrella?" "Oh, yes! my umbrella." And yet at that very time his conversation was as sensible as ever. He wrote or read of, or discussed, most difficult points of law. A patient will often use a form of circumlocution to express his meaning; thus, one man who could not remember *scissors*, would say, "It is what we cut with."

It may be, however, that not only are the right words forgotten, but wrong ones are substituted. The mother-in-law of a medical man (we are told by Dr. Trousseau) labored under a very singular intellectual disorder. Whenever a visitor entered her apartment, she rose with an amiable look, and, pointing to a chair, exclaimed, "Pig, brute, stupid fool!" "Mrs. B—— asks you to take a chair," her son-in-law would then put in, giving this interpretation to her strange expressions. In other respects, Mrs. B——'s acts were rational, and her case differed from ordinary aphasia in that she did not seem to grow impatient at what she said, or to understand the meaning of the insulting expressions of which she made use. Crichton mentions the case of an attorney who, when he asked for anything, constantly used some inappropriate term; instead of asking for a piece of bread, he asked for his boots, and, if these were brought, he knew they did not correspond to the idea of the thing he wanted; therefore he became angry, yet he would still demand some of his boots or shoes, meaning bread. One gentleman (a patient of Sir Thomas Watson) would say "pamphlet" for "camphor." Another would say "poker" when he meant the "fire." Dr. Moore, of Dublin, has recorded the case of a gentleman who completely lost the connection between ideas and words. On one occasion the doctor was much puzzled by his patient saying to him, "Clean my boots!" Finding he was not understood, he became much excited, and cried out vehemently, "Clean my boots by walking on them." At length it was ascertained that the cause of disquietude was the shining of the candle in his face; and that the object of his unintelligible sentences was to have the curtain drawn. When this was done, he appeared gratified. In this

case, it will be noticed, the patient formed complete sentences, the power of co-ordination and articulation was perfect, and the intelligence was apparently unimpared. But sometimes where articulation may be retained, what is uttered is perfect jargon.

A gentleman in Dublin, after an attack of apoplexy, was thus affected, and in the hotel where he staid he was mistaken for a foreigner. Dr. Osborn, with a view to ascertain the nature of his imperfection of language, asked him to read aloud the following sentence from the by-laws of the College of Physicians: "It shall be in the power of the college to examine or not to examine any licentiate previous to his admission to a fellowship, as they shall think fit." He read as follows: "An the be what in the temother of the trothotodoo to majorum or that emidrate ein einkrastroi mestraits to ketra totombreida to ra from treido as that kekritest." Several of these syllables are difficult and unusual.

As indicated above, it is necessary to distinguish between the memory of *words* and the memory of *how to say* words. Where the latter memory is lost, the disorder is sometimes called *atactic aphasia*. The patient may retain a few words, and use only these. There was at the Bicêtre Asylum for many years a man who invariably used the monosyllable "tan" when any question was put to him. (He went by the name of "Tan.") This, with the exception of an oath (S—N—d—D—!), composed his whole vocabulary. His history, long under observation, furnished some useful data with regard to the physiological relations of aphasia; but we cannot here dwell on this.

Another instance mentioned by M. Broca was that of a man who had only four words besides his name (which he pronounced "Lelo" for "Lelong"); they were, *yes*, *no*, *three*, and *always*. He used *yes* and *no* at proper times, but he made use of the word *three* in order to express any number, although he knew well that the word did not always convey his meaning, and corrected the mistake which he made in speaking by holding up the proper number of fingers. Whenever *yes*, *no*, or *three*, are not applicable, he uses the word always (*toujours*). M. Broca infers from this man's case—1. That he understood all that was said to him; 2. That he used with judgment the four words of his vocabulary; 3. That he was of sane mind; 4. That he understood written numeration, and at least the values of the first two orders of units; 5. That he had lost the faculty of articulate language alone. It is to this atactic aphasia alone that M. Broca limits the term *aphasia*.

Another example of it may here be given from Dr. Trousseau. A lady came to consult him with her son, aged twenty-five. This young man could articulate two words only, *no* and *mamma*. "What is your name?" "Mamma." "What is your age?" "Mamma, no." He yet knew that he did not answer as he ought. He had taught himself to write with his left hand, the right being paralyzed, but had not got beyond signing his own name, "Henri Guénier." "Since you write your name," Dr. Trousseau told him, "say Guénier." He made an effort, and said, "Mamma." "Say *Henri*." He replied, "No mamma." "Well, write *mamma*." He wrote *Guénier*. "Write *no*." He wrote *Guéneir*. However much he was pressed, nothing more could be got from him.

There are various remarkable phases of this inability to articulate. One man in the Paris asylum would say "*Consisi*;" and it might be expected that he could easily say "*con-con*" or "*sisi*," but it was only after several days' trying that Dr. Trousseau got him to say the former, and he never could say "*sisi*" alone. Another aphasic patient, a woman, could say very well, "*Bonjour, monsieur*;" but could never be got to say "*bonbon*."

Aphasic patients are, as a rule, beneath the average of other men as regards intelligence, and considerably beneath their former selves, when the comparison can be instituted. There is, however, a very rare form of aphasia in which the intellect is unaltered, memory is good, the patient writes easily, and expresses his thoughts correctly in writing as educated deaf-mutes do. The recovery of the art of writing (where it is recovered) is gradual.

In a case recorded by Dr. Winslow, the man had retained the faculty of language; he could write the words and phrases which he thought of; but, when he tried to speak, he only utterly confused sounds. In this instance, the olivary bodies were alone affected. The faculty of language remained intact; the vocal apparatus was not injured; but the apparatus of transmission was profoundly altered.

In other cases, again, it is the organ of thought itself that is diseased. There is an affection well known to physicians who study the insane, and which is call general paralysis. This disease begins in the periphery of the convolutions, which are devoured (so to speak) by a slow inflammation characterized by intermittent extensions. One may take account of the disorders it causes by the state of intelligence of the patients. At first, the inflammation produces an intellectual excita-

tion, which expresses itself in mad acts. Each time a fresh access of madness is observed one may pretty surely infer a new extension of the disease. But at length, when the whole outer surface of the hemispheres is destroyed, there is no longer either thought, or will, or instinct; the unhappy subjects are plunged in a state of somnolence and stupor, from which nothing can rouse them. They do not speak, because the organ of thought no longer exists.

It is probable, then, that between the organ of thought and the vocal organ is a third organ—the organ of words, and it is a lesion of this which properly constitutes aphasia.—*English Mechanic.*

Swedish Movements.—No. 1.

BY W. J. FAIRFIELD.

THINKING that it would be of interest to the many readers of the REFORMER to know something in regard to the origin and history of *movements*, and also something of their application and beneficial results, we give this slight sketch of their origin and history, together with a few remarks in regard to the nature of *passive movements* and their physiological effects. We shall also give a few hints in regard to the manner in which they should be given.

It is but in the present century that movements have been thoroughly understood and scientifically applied, although we find them of very ancient origin. It is an undisputed fact that medical gymnastics, or movements, have been in use from very ancient times for the cure and prevention of diseases. Its history teaches us that at various times this science has been esteemed more or less as a means of cure for certain diseases, and especially valuable as a preventive, by the most celebrated of the ancient physicians. The great Sydenham, who is known as an advocate of gymnastics, recommended riding on horseback as a cure for incipient consumption. It was he who said, when dying, to those around him who were mourning the loss of the great physician, "I leave behind me three great and most important means; viz., air, water, and exercise, which will compensate for the loss of my person."

It may be said, with a considerable show of truth, that movements have been employed in every age by the uncivilized as well as the civilized. Among Indian and African tribes, a variety of movements, though very crude, have been practiced, intermingled with superstitious rites, incantations, prayers, etc., by which the sick were treated. We could not expect the sick to be helped by such treatment, unless through its influence upon the mind, as faith has not a little to do, many times, in effecting a cure.

From Chinese history, it appears that certain movements have been a long time in vogue among the Chinese, and implicitly believed in by them, even to superstition, as possessing wonderful curative virtues. Their system of movements is called, in Chinese, "*Cong Fou.*" The sense of the term is, the art of exercising the body, and its application to the treatment of disease. Chinese history mentions it as far back as Houng-Fi, 2698 years B. C.

P. Amiot, a learned missionary, says, "Volumes might be written of the traditions, stories, and extravagant virtues of the *Cong Fou*, which are implicitly believed; even the majesty of the throne not exempting many emperors from a stupid credulity. Notwithstanding the priestly superstitions connected with it, for the priests persuade the people that it is a true exercise of religion, it is really a very ancient practice of medicine, founded on principles, and potent in many diseases."

P. Amiot farther says that the Chinese "regarded the *Cong Fou* as a true exercise of religion, which, by curing the body of its infirmities, liberates the soul from the servitude of the senses, and gives it power of accomplishing its wishes on earth, and of freely elevating itself to the perfection and perpetuity of its nature in the *Tao.*, the realm of the great creative Power."

Movements, somewhat resembling those employed in China, have also been in use for a long time in India. A Greek historian who took a trip to India sometime during the third century B. C., found there an order of physicians among the Brahmins. Their manner of treatment discarded the use of drugs. It consisted mainly of diet and regimen, together with movements. These physicians were said to be quite successful in performing cures; but superstition being so prevalent among the mass of people, it was fully believed that the physicians employed charms to aid the simple means they used.

A medical order of Brahmins exists at the present day; and in all probability it is descended from the same order, as the treatment has a marked resemblance. English residents of India, speaking of the method of treatment of this last-named order, say the movements given are a source of benefit as well as delight to the patient. The physician, or operator, having the patient extended on a couch, or similar arrangement, manipulates various parts of the body as one would knead

dough for bread. This being continued for a short time, it is followed by lightly percussing the different parts with the side of the hand. Perfume is then applied with friction, and the operation is completed by cracking the joints of the fingers, toes, and neck.

Of all the ancient nations of which history is given, none excelled the ancient Greeks in physical strength and beauty. The mere mention of a Greek at the present time is sufficient to call up in imagery a beautiful and robust human form nearly to the perfection, as one would imagine, of the Adamic state. Why should they, of all nations, be thus distinguished? It is only the result of "movements" which they applied as a physical culture. It is asserted of them that there was as much time employed in the culture of the body as in that of the mind. Their gymnasiums which were probably found in all cities in Greece of any size, gave the youth the means of improving their bodies. The education was commenced as early as the seventh year. It included music and grammar, with physical training.

The Romans had gymnasiums also for physical training, but war being the controlling influence with that people, they were less refined in their movements, and in time the gymnasiums were wholly perverted to exhibitions of a cruel and most debasing nature. But no soldiers were more famous for feats of arms and strength of endurance than were the Romans.

The present state of the science of remedial treatment by movements has been mostly brought about by Peter Henry Ling, a native of Sweden, who was born in the year 1766. He died in the spring of 1839. In his youth, while at school, Ling was distinguished for his great talents, and his energy and devotion to study; and in after life, we find the same energy and devotion displayed. His attention was first called to movements in consequence of his having been considerably relieved from an attack of rheumatic paralysis in his arm while fencing. He had previously received a classical education, and he now set about studying anatomy and physiology. Thus originated his rational system, quite different from the gymnastics both of ancient and modern times.

The development and preservation of the harmony between the mind and body, as well as among the various organs of the body, is the object of Ling's system with regard to healthy persons, while the restoration of the disturbed harmony of the different organs produced by disease form the medical part. Anatomy and physiology were regarded very highly by Ling. He made them the basis of his system of movements. The importance he attached to the study of these, and the enthusiasm he felt, are not better expressed than in his own words, "Anatomy, that sacred genesis, which shows us the masterpiece of the Creator, and which teaches us how little and how great man is, ought to form the constant study of the gymnast."

Ling's system of movements was first practiced at Stockholm. In the year 1813, the Central Institution being founded at his suggestion, he was put in charge of it. This institution is at the present day in successful operation, applying the system of movement treatment, as taught by Ling, in restoring suffering ones to health. There are several institutes for the treatment of the sick, scattered throughout northern Europe, which adopt Ling's system of movements. They number in all about thirty.

One at St. Petersburg is conducted upon a grand scale. It is considerably larger than any of the others, and is patronized by the royal family.

Tea, Coffee, and Tobacco.

THE ONLY NATURAL DRINK.

IF it is a mooted point what a man should drink, the question is usually determined by pleasure, custom, or fashion. The desire for drinks—not from nature's need, but for pleasure—is of two kinds: that for what is simply pleasant to the palate, and that for excitement or stimulation. One or both commonly determine what drink, how much, and how frequently it is to be taken.

Water is the natural drink of man, as it is of all organized beings. It enters more largely into his composition than any other substance, giving liquidity to the blood, moisture to all the tissues, and serving as the only solvent to all soluble matters in the body. Thirst is the indication when drink is needed for one or all of these purposes, and any other besides water fills this want of the body in precise proportion to the quantity of water which it contains. The simplicity of the means and the end, however, does not suit man's intense craving for pleasure and excitement. The artifices to augment these may be numbered by the score. Thousands seldom take a drink without some substance in it to excite pleasure, and even take drink after drink when there is no thirst, or simply on account of the pleasure afforded. It is owing to the fact that such foreign substances in drink as tea, coffee, and spirits, act in an agreeable manner upon the sensibilities of the body, that they are so generally used, and, I

may add, so ably defended. After the habit of drinking them is contracted, and the will a slave to their use, it is rare candor not to ransack the records of knowledge for some apology, excuse, or reason, why their use should not be discontinued.

THE USE OF STIMULANTS LIKE TEA, COFFEE, AND WINE.

Tea, coffee, and spirituous drinks, have been classed as tonics, stimulants, and accessory foods, or foods which aid others in nurturing the body. For the healthy, or those who wish to preserve such a state, no stimulants or tonics are needed; it is only after sickness invades the body that a medicine like a stimulant is of any service. But why should they be called accessory foods? Do they fill a vacuum in the great abundance of aliments? or do they render the strengthening qualities of those aliments more perfect? Is the growth, the development, or the health of the mind and body more perfect among those who use them than among those who do not? Dr. Chambers, evidently impressed with an affirmative view upon these points, says that "the opportunity for temperately enjoying them has always coincided with the advancement of a nation in the scale of humanity:"* thereby intimating that what he calls accessory foods have been contributors to such a result. Are all the practices and habits which usually coincide with advancing civilization to be put in this category? May not the vices of civilization, of which the temperate or intemperate use of liquors is an acknowledged one, be communicated to savages without raising them in the scale of humanity? On this continent, the introduction of spirituous drinks among the Indians has done more to *lower* them in the scale than any other single cause. No; the use of intoxicating drinks, temperately or otherwise, is in no sense a cause of the advancement of a people in the scale of humanity, but a retarder—one of civilization's evil accompaniments—just as insanity is. The use of refined and concentrated foods is as much a concomitant of advancement in the scale of humanity as that of stimulating drinks; and every candid, closely observing physician will admit that the former have more to do with producing the manifold disorders of the stomach than all other causes combined. Are we to speak gently and defensively of such foods because they give pleasure, because we are addicted to them, or because they are among the accompaniments of the advancement of a nation in the scale of humanity? Such a plea is well enough fitted for moral and political optimists—for those who are satisfied with things as they are, or who have no faith in the ability of human nature to attain a higher and purer moral, physical, and intellectual development.

*Digestion and its Derangements, p. 188.

MILD STIMULATION.

The part of the body most strongly affected by stimulants is the nervous system. The functions of this part, such as the thoughts, feelings, and will, are always more or less changed by their use. The demeanor displays an unnatural, though agreeable, liveliness, which is afterward succeeded by an unnatural and disagreeable gloominess. As it is upon the nervous structure that stimulants mainly act, so it is upon this part that the diseases which they produce are mainly seen. The life-long play of even gentle exhilaration upon the nerves first weakens, and then prevents their action. Such an effect may not be witnessed in those of strong constitution in the first or second generation, but come it certainly will, and usually in a very sad and distressing way. To no other cause can the great prevalence of nervous derangements in our day be fairly ascribed.

The connection between this nervous impairment and its cause is very commonly overlooked, from the fact that its manifestations do not usually follow immediately after the application of the cause. Yet, as before remarked, this is the usual way in which hurtful habits or agents act in destroying health. A year or two's continuance, for example, of costiveness is commonly required to produce piles; but if a caution be given only a month or two before the disease is manifest, the reply is, "Costiveness does not hurt me in that way." Warn a person of the probability of corns forming on the toes by the wearing of tight shoes, and, if these excrescences have not yet shown themselves, the answer is, "Tight shoes do not hurt me in that way." Before the disease occurs, men and women seem to be willingly blind to the fact that it is not a few, but many, days of pressure which develop corns; that it is not one excess in drinking, but many, which develop tremens; that it is not one day's abuse of the stomach, but many, which develops dyspepsia. Words of caution to young men concerning the injurious effects of tobacco, elicit, in ninety-nine out of a hundred cases, the reply, "It does not hurt me." Does not hurt you! Wait and see. In years to come, when you ought to be in your prime, you will be a poor, nervous, irritable, nerve-dried creature. Your hands will tremble, your head will ache, your sleep be fitful and dis-

turbed, your digestion impaired; in short, the unnatural and transient pleasure at one end of your life will be more than counterbalanced by the discomfort and misery at the other. It is a truth of the greatest moment, which ought to be so impressed upon the mind as to be always rising up within it, *that transgressions of the laws of health if not punished at one end of life, are sure to be at the other.*

A TEST OF DRINKS THAT ARE NATURAL AND WHOLESOME, AND OF THOSE THAT ARE NOT.

The provisions of nature for satisfying thirst are ample, and exactly suited to the necessities of the system. Pure water never causes disease, the craving for it never becomes unnatural, it does not benumb the nerves, destroy the appetite, burn up the moral perceptions, and cause reason to reel and sprawl in idiotic semblance. All the stronger stimulants, when used for some time, make men slaves to their use. Their influence, and the craving for them, *grow* day by day, leading unto greater and greater excesses, until disease and untimely death—the lash and the guillotine of natural law—thrust their strings into the vitals. All are aware that such are the common results from the use of strong stimulants. The nervous wrecks of humanity to be seen upon every heart, upon whom natural law is being vindicated, and the graves of thousands upon whom it *has* been vindicated, bear sad and emphatic testimony upon this point.

That the use of water never leads to an increasing and unnatural craving for it, and that it does not tend to the production of disease, while stimulating drinks invariably do both, is conclusive evidence that the use of the latter is wrong and unwholesome in effect. The evidence showing that stimulants pervert the moral character, derange the intellect, and bring on long trains of misery and disease, is overwhelming. If it be asked how the epileptic condition, the raving maniacal mind, the idiotic child, the paralytic brain, the infant writhing in convulsions, the head almost crazed with pain, the nerves racked with misery, the young, wasted, paralytic arms, the crooked eyes, the clubbed feet, the terribly depraved nature, arose, the answer must be that, immediately or remotely, they came from some unnatural or artificial play upon the excitability of the nervous system.

THE ULTIMATE DESIGN OF A GROWING APPETITE FOR STRONG DRINK.

It is a familiar fact that, by the constitution of man's nature, the inclination to do evil grows with its practice. By yielding to the inclination, temptation acquires more and more force, until finally it becomes the master of our will. It is in this way that evil-inclined persons are drawn on to their own destruction. If temptation did not increase with evil practices, and these bring disease and death in their train, there would neither be the evidence of wrong-doing, nor of the weeding out of the most ignorant and depraved of our race. Although, from a partial standpoint, this process of weeding out the worst and preserving the best may often seem slow, yet viewed by an eye which covers several generations, the tardiness disappears, and nature's retributions and rewards are seen to be sufficiently certain, speedy, and just. The tendency everywhere, and at all times, in a family notoriously wicked and dissolute, is to its ultimate extinction. Though this is not instant or speedy, it is none the less sure. An intemperate father dies with delirium tremens, a son follows in his footsteps, another leads a somewhat more reputable life, but his children's children, if not improved in some way, die in infancy, either suddenly, or from wasting disease, or they commit suicide, or die in a mad-house. The meaning, therefore, of the well-known inclination of the drunkard or the opium-eater to go on to greater and greater excesses, is to lead him to his own destruction.

Professor Laycock, of Edinburgh, evidently had no great confidence in this extirpating process of nature, or in the survival of the fittest when he penned the following: "Of the three hundred thousand educated in the work-house, eighty per cent are failures when sent into the world. A large proportion pursue evil courses, join the predatory classes, or fall stupidly into crime, or else they either return to the work-house or become inmates of the county asylum. I might, if time allowed, point out how drunken, vicious imbeciles, tainting their offspring to the third and fourth generation, serve to fill our asylums to overflowing; and that, unless means be taken to restrict their personal liberty during the fertile period of life, there must of necessity be a continual increase in the insane, imbecile, vicious, and degraded part of our population."*

Greater care in tracing the history of any family of *persistently degraded* conduct throughout several generations will show that the tendency is always to extinction; or that the laws of nature operate in wiping their blood from off the earth. It is as true as it is just, that this process of extinction is

* *London Lancet*, 1868, p. 712.

often delayed, or it may be altogether stayed, by the crossing of a bad with a better blood. But when neither this nor reformation occurs, the above-mentioned result sooner or later ensues.

EFFECTS OF TEA, COFFEE, AND TOBACCO.

Tea, coffee, and tobacco, do not stimulate with sufficient power to produce the sad effects of opium and fermented liquors. The greatest objection to their use is contained in the fact that they prepare the way by developing the desire for the strongest kind of stimulation. In more exact terms, their habitual use begets that state of the nervous organization which causes the desire for excitement or nervous stimulation to become a controlling impulse. One who is a slave to the use of tobacco, coffee, and tea, has, therefore, the precise state of the nervous system which tends to lead him to the lowest depths of inebriation. And this state of the nerves, like any other, is a transmissible quality. The inclinations, appetites, and mental grasp, which a child displays are never accidental, never spontaneous—they are all strictly and wholly derived. The state of the nervous system in parents, as well as of their lungs, liver and stomach, differ at one time from another; and it is to this difference that the differing qualities arise in offspring of the same parentage. The more closely a father and mother reflect upon all the circumstances, states, and conditions of body and of mind which immediately precede the procreation of this son, or that daughter, the more clearly do they perceive the relation and dependence of the peculiarities of the child to those which existed in themselves. Suppose, then, that a child is born to parents in *both* of whom the desire for tobacco, tea, and coffee, is very strong, and at a time when their nerves were more affected by stimulation and depression than usual; that child will inherit that desire for stimulation and that state of the nerves. As soon as it knows, and is able to gratify this craving for excitement or stimulation, it will indulge even more largely than the parent—unless good training and influences prevent. Even should these influences hinder for a time any display of the unnatural appetite, it will very likely be seen whenever they are removed. Many such are so unfortunately constituted that they would rather have artificial excitement and die than only natural and live.

With these trainers or educators constantly and almost universally at work, is it any wonder that the temperament in which the desire for strong drink is an irresistible longing should be upon the increase; and that though the old drunkards and their dissolute progeny are cut off, there is always an abundance of fresh recruits for a like destiny? The advocates of temperance too often seem to think that by putting out of the way the thing craved, and leaving the craving to take care of itself, nearly all is done that can be to suppress the evils they are contending against. It is a fundamental mistake. So long as an unnatural craving for powerful stimulants is nurtured in so many by the use of the weaker kind of stimulants, so long will thousands every year miserably succumb to their intense desire for, and use of, the stronger.

That the milder stimulants, if habitually used, act in this way upon the nerves, or as agents in exciting a taste for the stronger, may be shown by their effects upon the body. Tea, coffee, and tobacco, it has been experimentally determined, act upon the body in precisely the same manner as alcoholic drinks—the sole difference being one of degree, not of kind. They are all retarders of the waste of the body, or, in other words, of the changes in the atoms of which the body is composed. These changes or wastes are necessary, too, for the well-being of the body. Indeed, without them life would immediately cease. This is not the only similarity in their action to alcohol. The desire for the milder stimulants, such as tea, coffee, and tobacco, *grows* with their use, precisely as does that for alcoholic drinks, opium, absinthe, and hasheesh. This is a peculiarity *never seen* in the use of any natural food or drink, such as water, apples, or oranges. The tendency is rather the other way, a more or less constant use not unfrequently decreasing the relish.

The excessive and habitual use of tea, coffee, and tobacco, works other evils besides the more remote ones just pointed out. They often cause, though in a minor degree, trembling hands; they disturb the sleep, impair digestion, create nervous blindness and headache, and excite distressing sensations in the heart. The point of the tongue on which the end of the tobacco-pipe rests sometimes becomes cancerous; and the fumes of this powerful narcotic waste, wither, and weaken the delicate texture of the nervous organization. No healthy person can claim any good from the use of tobacco; while an exposition of the harm it has wrought would fill many pages.—*Dr. B'ack.*

WHEN will intelligent men learn to think for themselves, and cease to place their own lives and health, and those of their families and friends, in the hands of the specious, reckless, and unprincipled charlatan?

Power of Appetite.

BY MRS. E. G. WHITE.

ONE of the strongest temptations to man is upon the point of appetite. Between the mind and the body there is a mysterious and wonderful relation. They react upon each other. To keep the body in a healthy condition, to develop its strength, that every part of the living machinery may act harmoniously, should be the first study of our life. To neglect the body is to neglect the mind. God cannot be glorified by his children's having sickly bodies or dwarfed minds. To indulge the taste at the expense of health is a wicked abuse of the senses. Those who engage in any species of intemperance in eating or drinking, waste the physical energies and weaken moral power. They will feel the retribution which follows the trangression of physical law.

The Redeemer of the world knew that the indulgence of appetite would bring physical debility and deaden the perceptive organs so that sacred and eternal things would not be discerned. Christ knew that the world was given up to gluttony, and that this indulgence would pervert the moral powers. If the indulgence of appetite was so strong upon the race as to require a fast of nearly six weeks by the divine Son of God, in behalf of man, to break its power, what a work is before the Christian in order that he may overcome, even as Christ overcame. The strength of the temptation to indulge perverted appetite can be measured only by the inexpressible anguish of Christ in that long fast in the wilderness.

Christ knew that in order to successfully carry forward the plan of salvation he must commence the work of redeeming man just where the ruin began. Adam fell on the point of appetite. In order to impress upon man his obligations to obey the law of God, Christ began his work of redemption by reforming the physical habits of man. The declension in virtue and the degeneracy of the race were chiefly attributable to the indulgence of perverted appetite.

There is a solemn responsibility upon all, especially upon ministers who teach the truth, to overcome on the point of appetite. The usefulness of ministers of Christ would be much greater if they had control of their appetites and passions; and their mental and moral powers would be stronger if they should combine physical labor with mental exertion. They could, with strictly temperate habits, with mental and physical labor combined, accomplish a far greater amount of labor and preserve clearness of mind. If they should pursue such a course their thoughts and words would flow more freely, their religious exercises would be more energized, and the impressions made upon their hearers would be more marked.

Intemperance in eating, even of food of the right quality, will have a prostrating influence upon the system, and will blunt the keener and holier emotions. Strict temperance in eating and drinking is highly essential for the healthy preservation and vigorous exercise of all the functions of the body. Strictly temperate habits, combined with the exertion of the muscles as well as the exercise of the mind, will preserve both mental and physical vigor, and give power of endurance to those engaged in the ministry, to editors, and to all others whose habits are sedentary.

As a people, with all our profession of health reform, we eat too much. Indulgence of appetite is the greatest cause of physical and mental debility, and lies at the foundation of feebleness which is apparent everywhere.

Intemperance commences at our tables in the use of unhealthful food. After a time, through continual indulgence, the digestive organs become weakened, and the food taken does not satisfy the appetite. Unhealthy conditions are established, and there is a craving for more stimulating food. Tea, coffee, and flesh-meats, produce an immediate effect. Under the influence of these poisons the nervous system is excited. In some cases, for the time being, the intellect seems to be invigorated and the imagination more vivid. Because this is the result of these stimulants, many conclude that they really need them, and continue the use of those things which produce for the time being such agreeable results. But there is always an after result. There is reaction. The nervous system has been unduly excited to borrow power from the future resources of strength for present use.

All this temporary excitement of the system is followed by depression. In proportion as these stimulants temporarily excite the system, will there be a letting down of the power of the organs that have been thus excited, after the stimulus has lost its force. The appetite is educated to crave something stronger, which will have a tendency to keep up and increase the agreeable excitement, until indulgence becomes habit, and there is a continual craving for stronger stimulus, as tobacco, wines, and liquors. As the appetite is indulged, the demand will be more frequent, and the power of control more difficult. The more the appetite is indulged, the more the system becomes debilitated and unable to do without this unnatural stimulus, and the passion for these things increases until the will is overborne, and there seems to be no power to deny the unnatural craving for these indulgences.

The only safe course is to touch not, taste

not, and handle not, tea, coffee, wines, tobacco, opium, and alcoholic drinks. There is double necessity for the men of this generation to call to their aid the power of the will, strengthened by the grace of God, in order to withstand the temptations of Satan, and resist the least indulgence of perverted appetite. The present generation have less power of self-control than those who have lived several generations back. Those who have indulged the appetite for these stimulants have transmitted their depraved appetites and passions to their children, and greater moral power is required to resist the indulgence of intemperance in all its forms. The only perfectly safe course to pursue is to stand firmly on the side of temperance and not venture in the path of danger.

The great end for which Christ endured that long fast in the wilderness was to teach us the necessity of self-denial and temperance. This work should commence at our tables, and should be strictly carried out in all the concerns of life. The Redeemer of the world came from Heaven to help man in his weakness, that he might become strong in the power which he came to bring him, to overcome appetite and passion, and might be victor on every point.

Many parents educate the tastes of their children, and form their appetites. They indulge them in eating flesh-meats, and in drinking tea and coffee. The highly seasoned flesh-meats and tea and coffee which some mothers encourage their children to use are preparing the way for them to crave stronger stimulants, as tobacco; and the use of tobacco encourages the appetite for liquor. The use of tobacco and liquor invariably lessens nerve power.

If Christians would have their moral sensibilities aroused upon the subject of temperance in *all things*, they could, by their example, commencing at their tables, help those who are weak in self-control, and almost powerless to resist the cravings of appetite. If we could realize that our eternal destiny depends upon strictly temperate habits, and that the habits we form in this life will affect our eternal interests, we should work to the point of strict temperance in eating and in drinking. By our example and personal effort we may be the means of saving many souls from the degradation of intemperance, crime, and death. Our sisters can do much in the great work of the salvation of others by spreading their tables with only healthful, nourishing food. They may employ their precious time in educating the tastes and appetites of their children, and in forming habits of temperance in all things, and encouraging self-denial and benevolence for the good of others.

Notwithstanding the example Christ has given us in the wilderness of temptation by denial of appetite and overcoming its power, there are many Christian mothers who are, by their example, and in the education of their children, preparing them to become gluttons and wine-bibbers. Children are frequently indulged in eating what they choose, and when they please, without reference to health. There are many children who are educated gormands from their babyhood. Through indulgence of appetite they are made dyspeptics at an early age. Intemperance in eating and self-indulgence grow with their growth and strengthen with their strength. Mental and physical vigor are sacrificed through the indulgence of parents. A habit becomes established for certain articles of food from which they can receive no benefit, but only injury; and as the system is taxed, the constitution becomes debilitated.

Ministers, teachers, and students should become intelligent in regard to the necessity of physical exercise in the open air. They neglect this most essential duty for the preservation of health. They closely apply their minds to books, and eat the allowance of a laboring man. Under such habits, some grow corpulent because the system is clogged, while others become lean, feeble, and weak, because their vital powers are exhausted in throwing off excess of food; the liver becomes burdened and unable to throw off the impurities in the blood, and sickness is the result. If physical exercise were combined with mental exertion, the blood would be quickened in its circulation, the action of the heart would be more perfect, impure matter would be thrown off, and new life and vigor would be experienced in every part of the body.

When the minds of ministers, school teachers, and students, are continually excited by study, and the body is allowed to be inactive, the nerves of emotion are taxed, while the nerves of motion are inactive. The wear is all upon the mental organs, and they become overworked and enfeebled, the muscles lose their vigor for want of being employed, and there is not an inclination to exercise the muscles by engaging in physical labor because exertion seems to be irksome.

As our first parents lost Eden through the indulgence of appetite, our only hope of regaining Eden is through the firm denial of appetite and passion. Abstemiousness in diet, and control of all the passions, will preserve the intellect so that men may have mental and moral vigor to bring all their propensities under the control of the higher power, and to retain clearness of intellect to discern between right and wrong, between sacred and common things.

The controlling power of appetite will prove the ruin of thousands, when, if they had conquered on this point, they would have moral power to gain victory over every other tempta-

tion of Satan. But slaves to appetite will fail in perfecting Christian character. The continual transgression of man for six thousand years has brought sickness, pain, and death, as its fruits.

Cleanliness, and Care of the Skin.

BOTH these I consider as important means for the prolongation of life. Cleanliness removes everything that nature has secreted from us as useless or corrupted, as well as everything prejudical that might be conveyed to us from without through the superficies of our bodies.

Care of the skin is an essential part of cleanliness, and consists in paying such attention to it from infancy, that it may be kept in a lively, active, and useful condition.

The skin, indeed, must not be considered merely as a common covering to defend us from the sun and the rain, but as one of the most important organs of our body, without the incessant activity and agency of which there can be neither health nor long life; and in the neglect of which in modern times, lies the secret source of numberless diseases and evils that tend to shorten our existence. May the following observations, therefore, make more impression on my readers, and excite more attention to this organ and the management of it.

The skin is the greatest medium for purifying our bodies; and every moment a multitude of useless, corrupted, and worn-out particles evaporate through its numberless small vessels, in an insensible manner. This secretion is inseparably connected with life and the circulation of our blood; and by it the greater part of all the impurity of our bodies is removed. If the skin therefore be flabby or inactive, and if its pores be stopped up, an acridity and corruption of our juices will be the unavoidable consequence, and the most dangerous diseases may ensue.

Besides, the skin is the seat of *feeling*, the most general of all our senses, or that which in an essential manner connects us with surrounding nature, and in particular with the atmosphere; and by the state of which, in a great measure, the sensation of our own existence, and the relation which we bear to everything around us, is determined. Hence a greater or less sensibility, in regard to disease, depends very much on the skin; and those whose skin is weak or relaxed have generally a sensation too delicate and unnatural, by which means it happens that they are internally affected in a manner highly disagreeable, by every small variation in the weather, every change of the atmosphere, and at length become real barometers. Such a constitution is called the rheumatic, and arises chiefly from a want of strength in the skin. It occasions a tendency to perspiration, which is also an unnatural state, and which exposes us continually to colds and other disorders.

It is, likewise, a grand means for preserving an equilibrium in the powers and motion of our bodies. The more active and open the skin is, the more secure will people be against obstructions, and diseases of the lungs, intestines, and lower stomach; and the less tendency will they have to *gastric* (bilious) *fevers, hypochondriasis, gout, asthma, catarrh,* and *varicose veins.* One great cause of these disorders being at present so common amongst us is, that we no longer endeavor to cleanse and strengthen the skin by bathing and other means.

The skin, moreover, is one of the most important means of restoration of our bodies, by which a multitude of fine spiritual component parts are conveyed to us from the atmosphere. Without a sound skin there can be no complete restoration, which is one of the chief principles of long life.

It ought also not to be forgotten, that the skin is the grand organ of crises, that is to say, the assistant of nature in disease; that a man with open pores, and a skin sufficiently vigorous, may depend on being cured much more easily and with more certainty, and often even without the use of medicine.

That such an organ must be a great support of health and life, no one will deny; and it is therefore incomprehensible how people in modern times, since mankind have become more enlightened, should neglect it so much. Nay, we in general find, that, instead of paying the least attention to it, they from their infancy do everything in their power, as it were, to relax and weaken it, and to stop up its pores. The most of mankind, except at baptism, never experience the benefit of bathing during their whole lives; the skin by dirt and daily perspiration is more and more stopped up; weakened and relaxed by warm clothing, furs, feather beds, &c.; rendered inactive by confined air, and a sedentary life, and I think I may, without exaggeration, assert, that, among the greater part of men, the pores of the skin are half-closed and unfit for use.

Let me here be permitted to call the attention of my readers to an incongruity, which is not the only one of the kind in human life. The most ignorant person is convinced that proper care of the skin is indispensably necessary for the existence and well-being of horses and various animals. The groom often

denies himself sleep and other gratifications, that he may curry and dress his horses sufficiently. If they become meager and weak, the first reflection is, whether there may not have been some neglect or want of care in regard to combing them. Such a simple idea, however, never occurs to him in respect to his child. If it grow feeble and sickly; if it pine away and is afflicted with disease, the consequence of dirt, he thinks rather of witchcraft and other absurdities than of the real cause, neglecting to keep the skin pure and clean. Since we show so much prudence and intelligence in regard to animals, why not in regard to men?

The rules which I have to propose for preserving cleanliness and a sound state of the skin, are remarkably easy and simple; and, if observed from youth, may be considered as very powerful means for the prolongation of life.

1. Remove carefully everything that the body has secreted as corrupted or prejudicial. This may be done by changing the linen often, daily if it be possible, and also the bedclothes, or at least the sheets; by using, instead of a feather bed, a mattress, which attracts less dirt; and by continually renewing the air in apartments, and particularly in one's bedchamber.

2. Let the whole body be washed daily with cold water, and rub the skin strongly at the same time, by which means it will acquire a great deal of life and vigor.

3. One ought to bathe once a week, the whole year through, in tepid water; and it will be of considerable service to add to it three or four ounces of soap. It is much to be wished that public baths were again erected, that poor people might enjoy this benefit, and thereby be rendered strong and sound, as was the case some centuries ago.

Traces of this laudable practice may still everywhere be seen in the remains of baths and bathing-houses; but the use of it has been abandoned through the inconceivable indolence of mankind. Every Sunday evening, people formerly went in procession through the streets, beating on basins, to remind the lower classes of bathing; and the tradesman, who labored at dirty work, washed off, in the bath, that dirt which now adheres to him perhaps during his whole life. In every place of any consequence there should be a bathing-house, or a floating bath on some river for the summer, and another for the winter. In bathing it ought to be a rule never to enter the water with a full stomach, but either fasting or four hours after eating; never to bathe when the body is hot; to remain in cold water not more than a quarter of an hour, and in warm water never more than three quarters; to be cautious of catching cold when one comes out, which may be best done by putting on a flannel gown; and during dry, warm weather, to take moderate exercise afterward; but in cold, moist weather, to remain for an hour in a warm apartment.

4. People should wear warm clothing that does not tend to weaken the skin, and which may readily suffer the perspiring matter to pass through it. In this respect, I know nothing more prejudicial than to wear fur, which by its great warmth, weakens the skin very much; does not promote evaporation, but sweat; and on account of the thickness of the leather, does not suffer the perspiring particles to fly off. The consequence is, that a continual vapor-bath is formed betwen the fur and the skin, and that a great part of the impure matter is again thrown back on the body, and imbibed by it. Far better is flannel, which has the advantage of fur without the disadvantage of attracting dirt and occasioning too much heat. But all these warm coverings on the bare skin are to be recommended only during intense cold, or for weakly people subject to rheumatism. In infancy and youth, and for those whose bodies are sound, it is far preferable to wear next the skin either linen or cotten, with a vest of the same in summer, and in winter one of woolen.

5. One should use much bodily exercise; for this is a great promoter of insensible perspiration.

6. Avoid all food unfavorable to perspiration. Of this nature is fat of every kind, pork, goose, cheese, &c.—*Hufeland.*

Hygienic Education.

BY W. T. CURRIE, A. M., M. D.

WHAT is hygienic education? Hygienic education bears the same relation to the education given in our American schools as the hygienic treatment of disease does to the drug treatment of disease. The drug treatment consists in stuffing the patient with the contents of phials, bottles, and pill boxes. The hygienic treatment of disease consists in surrounding the patient with such circumstances as will bring him under the direct influence of the great life-giving forces of nature, and thus enable the system to throw off disease. The common method of education consists in stuffing the pupils with the contents of books and lecture-room talks. Hygienic education consists in placing pupils under the best possible circumstances for the growth and development of those powers of body, mind, and heart, which are to be called

into use in the active life which comes after school days are ended.

Very well; now look through the whole country and tell me where you can find a school conducted on the principle I have named. Such a school would be a curiosity—as rare a thing as the egg in the body of a skate, over which the great naturalist made so much fuss.

Let us look at this a moment. In the first place, where is the school in which any attention is paid to the development of the bodily powers. "Look at the splendid gymnasiums," says one. Yes; I understand all that, and I know how much attention is given to exercise in those wonderful places.

After a few weeks of drill in those rooms they are universally voted a nuisance; for exercise, like study, is managed on the stuffing plan, without any regard to the requirements of the pupil. Where can we find a school or college where students are fed upon such a diet as will promote physical health and sound vigor of the body? "Do they not teach physiology in our schools?" No, sir! They stuff students with the contents of books on physiology. That is not teaching physiology. They give a lesson on diet, and then send them to the dining room to feed on "swines flesh and broth of abominable things." Those wise instructors also break down the physical powers of their pupils and unfit them for every duty of life by the unnatural strain given to the body in confinement and tasks of the school-room. That one is universally called the best scholar who can endure the greatest amount of intellectual stuffing. Hence, the examinations in our schools and colleges are an exhibition of the relative amount of stuffing the several scholars can hold without bursting. You need not laugh, my friend. I have endured ten years of this process myself, and I understand its merits. Besides, having been well stuffed myself, I have helped to stuff others.

Again, where is there a school in which a young boy or girl of a delicate constitution and liable to sickness can be sent for physical and mental discipline? Echo answers, Where? They will not bear stuffing.

Where, once more, is the school in which studies are given to the various scholars according to their several needs and necessities? Where?

In our schools all scholars are crowded through the same routine of mental discipline, without any regard to age, strength, or capacity.

Then, lastly, turn to the moral training of our popular school system. Our schools are the very hot-beds of the worst vices which ever disgraced humanity, and the teachers dare not say a word to their pupils against it. If any one doubt it, let him question any scholar whom he can get to tell the truth. And yet the scholars are crammed with moral precepts and Scripture maxims. This is not moral training.

But more hereafter. I have said enough to show that schools of a different kind have become a necessity. Reform in those existing is, at present, impossible.

Cleanliness and Godliness.

PROF. LYON PLAYFAIR recently delivered a long address on sanitary reform before the Social Science Congress at Glasgow. In the course of his remarks, he said: "It is not a pleasing task to dwell on the habits of the population even in our country, in past times. Go back only to the time previous to the Reformation, and you can have no difficulty in understanding why luxury and squalor produced the plagues of the times of the Tudors and the Stuarts. High above all other dwellings were the castles and the monasteries, but the cabin of the peasant was worse than any now found in the furtherest isles of Scotland. It was made of reeds and sticks plastered over with mud. In these wigwams, lived an ague-stricken population. In the towns, the mechanics lived in rooms without glass windows, slept on straw beds, and worked in workshops unheated by coal fires. Even in well-to-do houses, rushes covered the earthen floors, and got saturated with scraps of food, which remained to putrefy under a new layer of rushes scattered over it, so that the 'petremen' came to dig saltpeter out of the floors. Filth, instead of being abhorred, was almost sanctified. The monks imitated the filthy habits of the hermits and saints of early Christian times; for the early fathers commended them. Even St. Jerome used to praise the filthy habits of hermits. He especially commends an Egyptian hermit who only combed his hair on Easter Sunday, and never washed his clothes at all, but let them fall to pieces by rottenness. St. Anthony never washed his feet. St. Thomas à Becket, when martyred, had under garments in a state which makes one shudder at the remembrance. And so the monks, up to the time of the Reformation, and indeed in part up to the present day, thought or professed to think, that by antithesis, pollution of the body indicated cleanliness of the soul. Practically, indeed, it helped to it; because the odor of sanctity which infested these old monks and hermits helped to keep them apart from the temptations of the world; for the world scarcely cared to come into too close contact with those oderiferous saints. But

this association of filth with religion was unhappy in its consequences; for men ceased to connect disease with uncleanliness, and resorted to shrines and winking virgins for cure of maladies which were produced by their own physical and moral impurities. Under all these influences, plagues were very destructive in England."

Hints Toward Reform.

BY RALPH E. HOYT.

A CORRESPONDENT writes to one of the daily papers of this city and inquires "whether physicians cure more than they kill?" Presuming that the inquirer refers to physicians whose practice is based upon the theory of administering poisons, I take the liberty of replying to him. The drug doctors do *not* cure more than they kill, but they kill (unintentionally) vastly more than they "cure." And some of the most eminent practitioners in their ranks have been candid enough to admit this fact. The same writer further inquires:—

"Are doctors and surgeons still a body of experimenters, making use of the bodies of men as the chemist does the ingredients of earth when uncertain of the result?"

Precisely. That is just what most of them are. And so it behooves the people to do a little independent thinking and studying for themselves on these subjects, and not trust blindly in this "body of experimenters." In this connection, I copy the following editorial paragraph from the Chicago *Times*:—

"A man went into a New York medical dispensary the other day and asked to see the physician in charge. He was confronted with that individual, and asked to name his business. The applicant remained silent for a moment, and then said he wanted to sell himself to be experimented upon. He was tired of life, and wanted the doctors to kill him easily and then cut him up in the interest of science. . . The man did not go about the affair in the right way. He should have feigned sickness and gone to the dispensary to be cured. The doctors could then have killed him with neatness and dispatch, and he would have gained his point and died without suicide."

The season for rushing off to some fashionable resort where "mineral springs" flow freely, and drinking a few barrels of medicated slush, is upon us; and thousands of independent citizens are availing themselves of the glorious privilege. It is comforting to know that people in Chicago who cannot go abroad after filthy water may find it at home, as will appear from the following item, clipped from the local columns of the *Journal*:—

"So confident are the owners of the springs here of their medicinal virtues that arrangements have been made for a free supply of their waters to the people of Chicago. To that end, a barrel has been placed at the southeast corner of Clark and Washington streets, which will be kept filled for the benefit of the afflicted."

I am truly thankful that I am not obliged to be "afflicted" with such a beverage.

A prominent city official in this community is at present afflicted with an enlargement of the pupil of his left eye, and is receiving treatment at the hands of the most distinguished oculist in the city. I inquired of the official what kind of treatment he was taking, and he replied that the doctor was giving him *strychnine* three times a day. If the patient loses the sight of his eye, I suppose it will be "a providential affliction." If he recovers, the doctor and his strychnine pills will receive any amount of praise.

764 West Lake Street, Chicago.

Sleep and Beds.

SLEEP OF CHILDREN AND AGED PEOPLE.

YOUNG children require more sleep than adults or youth; but all artificial means of protracting their sleep are decidedly objectionable, and many of them exceedingly injurious. If the quality and quantity of their food and their times of receiving nourishment are properly regulated, and if they are correctly managed in other respects, they will require no cradle to secure their sleep, and still less will they require opiates of any kind, either through the mother or administered directly to themselves. As a general fact, rocking children in a cradle has a bad effect upon their health, and none but the most gentle motion of this kind should ever be allowed; and the habits of mothers and nurses, of drinking gin or brandy toddy or porter or ale or any other alcoholic or narcotic liquor, or of giving any of these, or any paregorics or carminatives, to children, to make them quiet and to cause them to sleep, is exceedingly bad, not to say very wicked and cruel. Well-managed children will sleep full as much as the good of their little bodies requires without the use of any such means, and it is infinitely better that they should occasionally cry and exercise their lungs, than that they should be kept continually in a state of sluggish quietness by stupefying and deleterious substances. Even the herb teas of domestic preparation should be used with great caution and very sparingly. If nursing children are restive and fretful, examine their dietetic habits, and the dietetic habits of the mothers or nurses,

and the cause may generally be very readily found. It is more cruel than the grave for the mother or the nurse to be constantly indulging in those kinds of food and drink which inevitably produce irritation in the delicate little bodies of children, and then to endeavor to allay that irritation by anodynes. It will be almost a miracle if such children do not either die before they get through teething, or become afflicted with chronic disease before they are twenty years old. I repeat, then, that no artificial means should be used to cause children to sleep; and the utmost care should be taken to avoid everything relating to their diet, clothing, cleanliness, etc., which may serve to impair or abridge the natural soundness and duration of their sleep. A great want of cleanliness of their bodies is exceedingly unfavorable to the sound and healthful sleep of children.

Old people require less sleep than the young and growing, and less than the middle aged. But it is of great importance that the sleep of the aged should be as sound and as long as it can possibly be rendered by *natural and proper means;* and it is perfectly certain that where such means are strictly observed their sleep will be much more sound, refreshing, and protracted, than is ordinarily enjoyed by those who are advanced in years.

THE PROPER TIME AND DURATION OF SLEEP.

Some have contended that it is of little importance whether we sleep in the night or in the day-time, so that we sleep a proper length of time. But every indication of nature and all experience are opposed to such a notion, and to a properly enlightened mind there cannot be the least ground of doubt that the night is the natural time to sleep; that is, in all parts of the globe where the twenty-four hours are regularly divided into day and night. And all experience in civilized life has proved also that, other things being equal, those who get a considerable portion of their sleep before midnight, are, as a general fact, the most healthy and long-lived. In that state which in all respects is most perfectly adapted to the constitutional nature of man, therefore, there is every reason to believe that he would retire to rest soon after daylight disappears in the evening, and rise with the first gleam of light in the morning. But in the present artificial state of civic life, there are so many things to disturb and break up the natural physiological habitudes of the human system, that even the sleep of man is exceedingly affected by circumstances; so that it is impossible to lay down a general rule which will be equally suited to every individual. The best *general rule*, therefore, which I can lay down for all people in our climate, and indeed in all climates where the day and night are nearly of the same length as ours, is, that they should retire to rest as soon as they can after daylight disappears, and rise as soon as their sound and refreshing sleep is at an end, and certainly as soon as the earliest dawn of the morning appears. But if mankind will not listen to this general rule, which is undoubtedly the best that can be given to them, then I will give them another which is an extreme concession to human perverseness of habit; and say that, as a general rule, the *very latest hour* at which any human being should be kept from sleep is ten o'clock at night, and none should be in bed after the sun is risen. We have been told of individuals who habitually took but four hours' sleep; and undoubtedly some, by virtue of good habits in other respects, or a powerful constitution, may hold out many years in this way; but it always and inevitably shortens life, by an undue expenditure of the vital energies of the constitution in maintaining the animal and sensorial powers and functions. Six hours are probably the shortest time that man can habitually devote to sleep, consistently with the permanent welfare of his system; and perhaps eight hours of sound sleep are as many as any one can secure or enjoy to advantage in the present state of things. An average of seven hours, therefore, is probably the nearest we can come to exactness in a general rule for man in civic life.

BEDS, BED-CLOTHES, BED-ROOMS, ETC.

Concerning beds, I cannot speak the whole truth without greatly reprobating a strongly cherished custom of society; for I am compelled to declare that *feather-beds* are in every way objectionable, and that they possess not one redeeming quality, not a solitary virtue to save them from the general bonfire to which they ought immediately to be consigned.

Is it claimed that they are "soft and warm," and therefore conducive to human comfort? It is true that feather-beds are absolutely softer than straw, hay, moss, or hair mattresses; and it is true that they do not so rapidly conduct the heat from our bodies, and therefore are considered warmer; but it is also true that they so relax and debilitate our bodies, and so affect our nervous systems and our caloric function, that we *feel* our feather-beds to be harder, and to be less conducive to the healthy and comfortable regulation of our bodily temperature, than our beds of straw or moss. And hence, when we become fully accustomed to hard beds, if our habits are in other respects correct, we do not require so

much clothing by night nor by day, in cold weather, as when we are accustomed to sleep on feathers.

We have seen that there are the most intimate and important anatomical connections and functional and sympathetic relations between the external skin of the body and the mucous membrane which lines the alimentary and respiratory cavities, etc., and that through these and other media the external skin holds very direct and powerful relations with all the internal organs and functions of the system. In consequence of these relations, feather-beds not only relax and debilitate the external skin and impair all its functional powers, and make it more susceptible to cold and to all the changes of weather, and to the action of all insalubrious causes and influences, but they also relax and debilitate the whole system, and serve to impair every one of its physiological powers and interests. The lungs and digestive organs are powerfully affected by everything which is detrimental to the general condition of the external skin. So that, by habitually sleeping on feather-beds, we are more predisposed to dyspepsy, with all its train of evils, and to pulmonary diseases of every description. Indeed, there is probably not a single disease with which the human system has ever been afflicted, that we are not more strongly predisposed to, and which, when actually existing, is not in some measure aggravated by the use of feather-beds. I repeat, therefore, that they have not one redeeming quality, and ought, with as little delay as possible, to be utterly and forever discarded by every human being. They cause many more evils than it is convenient or even proper for me to enumerate on this occasion; while, on the other hand, they do not in reality minister to the comfort of mankind in any manner.

We have seen that the whole external skin of the human body is in some measure a breathing organ, and that it is continually exhaling a vapor loaded with various excrementitious matters, and held in an aeriform state by the heat which passes with it from the body. Feathers being non-conductors, not only contain much of this heat about the surface of the body, but also retain so much of the gaseous and other perspired substances as to keep the body surrounded by a very impure atmosphere while in bed. This impure atmosphere penetrates into every part of the bed; and besides this, there is always more or less of dead animal matter belonging to the feathers, which is continually undergoing decomposition, and forming unwholesome gases and offensive odors. So that a feather-bed, if the utmost pains are not taken to prevent it, soon becomes so completely saturated with its own impurities and those received from the human body, that it will give to the whole room, and even to the whole house, a very disagreeable and unhealthy odor; and when the bedroom is small and not well ventilated, nor properly cleansed, the very walls become in a few months so deeply tainted with the impurities that it is almost impossible by repeated cleansing and whitewashing to destroy the offensive smell, even in years. And where every measure is taken to keep a bedroom clean and sweet, if it contains a feather-bed, it will always have a disagreeable smell to those who have a pure olfactory sense. In every respect, therefore, feather-beds are unworthy of a place in the habitations of civilized beings.

Mattresses made of hair, if the hair has been thoroughly cleansed, are incomparably more favorable to health and purity and comfort than feather-beds. Mattresses made of moss, manilla grass, husks, straw, hay, palm leaf, etc., are still more conducive to the highest and most permanent well-being of the human body. For it should ever be remembered that, always and of necessity, in proportion as we, by the artificial means and circumstances of civic life, bring our bodies into that condition which renders soft beds indispensable to our immediate comfort, we diminish our physiological powers, increase the uncertainty of health, and abbreviate the duration of life; and the evil is always increased by an indulgence in the thing for which we thus create a demand. Bodily development, symmetry, vivacity, agility, and vigor, and mental cheerfulness, activity, clearness, and power, and moral purity, and elevation, and happiness, are all best promoted by a hard bed.

It is of much importance that the clothes of the bed should be properly regulated as to quantity and quality. Too many bed clothes render sleep less sound and refreshing, and serve to relax and debilitate the body, and in every respect to impair the physiological powers of the system; while, on the other hand, the want of sufficient clothing in cold nights, by suffering too great an abstraction of animal heat from the surface of the body, impairs the soundness of sleep, and renders it much less refreshing and invigorating; and where the want is great and continued, the evil consequences are often very serious. Be it remembered, however, that all my remarks concerning beds, bed-clothes, etc., are made with reference to man as a member of civic life, and as an inhabitant of a climate which renders the use of artificial means necessary

for the proper regulation of the temperature of his body. For, undoubtedly, if clothing were not necessary for the regulation of the temperature of his body, sleep would be more perfect, and refreshing, and invigorating without any, than with it.

There is a kind of bed-clothing becoming very common in our country which ought never to be used except from necessity, where other kinds cannot be had; I mean those articles made principally of cotton-batting or wadding, and called *comfortables*—a very great misnomer; for they are in reality very *uncomfortable* things. They have much the same effect on the body that feather-beds do, relaxing and debilitating the whole system. Indeed, people in delicate health can generally soon tell by their *feelings* when they are lying under one of these articles; for they render respiration less free, and cause a general sense of oppression and weariness, which often amounts to a painful sense of lassitude; and hence, as a general fact, sleep is less sound and refreshing, and more disturbed by unpleasant dreams, when this kind of clothing is used. Woolen blankets are incomparably better articles of clothing for beds than such *uncomfortable comfortables;* for while blankets are sufficiently non-conductors to retain the heat, they are not so utterly impervious to the air and to the exhalations of the body, yet, for reasons which I shall give when I come to speak of bodily garments, it is better as a general rule that the woolen bed-clothing should not come in immediate contact with the skin. In cold weather, cotton sheets are probably the best that can be used, and in hot weather linen sheets are preferable.

From what I have said concerning the functions of the external skin, it must be evident that an impure atmosphere is continually formed around the surface of the body while we are in bed and enveloped in clothes, which completely prevent anything like a current of air, or the atmospheric motion which during the day is consequently produced by our voluntary action and other causes. This impure atmosphere, as I have stated, penetrates into the bed and into all the bed-clothes, and, as it were, completely saturates them. If we go from the fresh morning air into a sleeping-room at the moment when an individual is rising, we shall have a very strong olfactory perception of the impurities which issue from the bed; and if that bed be soon made without airing, and the room be not freely ventilated, the very walls of the room, as we have seen, will in a short time become strongly and deeply tainted with the offensive and unwholsome odor.

When we rise in the morning, therefore, the bed should be thrown open, and, as soon as may be, the bed-clothes should all be taken off and thrown over clothes-horses or chairs, and the bed shaken up, and the windows opened, so that the whole may be thoroughly aired before the bed is made; and they who persist in using feather-beds, should very frequently lay them out in the open air and hot sun, that the impurities which are constantly accumulating in them may be fully driven off; and it will be still better if, as often as once in four or five years, the feathers be subjected to the cleansing process of baking.

On retiring to rest at night, everything worn during the day should be taken off, and hung up on pegs, on clothes-horses, or on the backs of chairs or elsewhere, so that they can be well aired during the night, and give off the impurities they have received from our bodies in the day-time. *Not a single article of clothing worn by day* should be kept on during the night; but flannels, and all other under-clothes, should be taken off and hung up; and after the whole surface of the body has been briskly rubbed with the flesh brush, a coarse towel, or the hand, a loose flowing bed-garment should be put on, so that the body and limbs shall be entirely free from all ligatures and compressions, and there shall be nothing to prevent the most perfect freedom of respiration, circulation, and voluntary motion. This bed-garment may be made of cheap cotton, and therefore can be afforded by every one. When this garment is taken off in the morning, it should always be hung up where it can be well aired.

Besides thus freely airing the bed-garment and bed-clothes every morning, they should be frequently changed and washed, that they may by all means be kept as clean and sweet as possible. The bedstead should also be kept perfectly clean in every part, and free from every impure thing, animate and inanimate. The floor of the bedroom should be washed frequently; and as often as twice in a year the walls should be whitewashed or cleansed with hot soap-suds. They who neglect these things cannot reasonably expect to enjoy the best of health, nor need they be surprised if they are occasionally visited with typhus and other fevers and complaints.

It is exceedingly desirable that all bedrooms should be large, and so situated and constructed that they can be well ventilated, and most especially the family room, or that in which the parents and small children sleep. Opposite opinions are entertained by different writers on hygiene, in regard to the propriety of sleeping with the bedroom windows open. Some think it a salutary practice, and others think the contrary. One thing is

certain, however: open chambers, where the house is merely clapboarded on the outside, and not ceiled nor plastered on the inside, are far more healthy bedrooms than those which are closely ceiled or plastered. Indeed, it should always be understood and remembered that, both when we are sleeping and when awake, the pure air cannot have too free an access to our whole bodies, provided we are kept sufficiently warm, and are not exposed to too strong a current. If bedroom windows are open during the night, therefore, a screen should always be placed before them so that the sleeper is never exposed to a current of air. Where the bedrooms of a house open into a common hall, it is perhaps better to open the windows of the hall and the bedroom door, than to open the windows of the sleeping room. It is very desirable that there should be a fire-place in every sleeping-room for the purpose of ventilation, but not for fire, except in sickness; for it is exceedingly unfavorable to health to sleep in a room where a fire is kept during the day, unless it is well ventilated before we retire to rest, and during the night.

BEDS OF CHILDREN AND AGED PEOPLE.

It is of very great importance that all these circumstances should be strictly attended to in relation to the sleep of children and youth. They who desire to have the bodies of their children fully and vigorously developed, without distortion, without disproportion, without feebleness, in any part, must not suffer them to sleep on feather-beds, nor in unclean bedding, nor in confined and ill-ventilated rooms. Let their beds be hard, and every thing about them clean and sweet. Feather pillows should also be avoided. Pillows made of moss or fine hay, or even straw, are incomparably better for children than feathers. Parents need not fear that such beds will feel hard to their children. When they become accustomed to them, they will never desire softer couches, and they will sleep upon them with most refreshing and invigorating soundness. But if their bodies are buried up in feathers every night, they will be enfeebled, their nervous excitability will be increased, they will be far more likely to take cold, they will be more predisposed to disease of the spine, rickets, etc.; their lungs, digestive organs, and in short their whole systems, will be debilitated and rendered more liable to become diseased. Too many children ought not to be put to sleep in the same bed nor in the same room, nor is it well to accustom children to sleep with old people. In strict physiological truth, it is decidedly best not only for children but for adults, for every body in civilized life, or where beds or bed-clothing are used, to sleep alone, or but one in a bed.

Great care should be taken to keep the bedding and bedrooms of aged people as clean and sweet as possible. As the vital powers of their bodies suffer an abatement of energy, it is the more important that every thing unfriendly to life should be avoided, and that every circumstance in which they are placed should be salutary. It is desirable, therefore, that for these, as well as all other classes of people, the bedrooms should be large and airy.—*Graham.*

Remarkable Health of the Jews.

STATISTICS have been collected in France, Algeria and Prussia, by which it is shown that the Jewish race has a mean average duration of life exceeding that of Christians by about five years, and that this people enjoy greater immunity from disease than Christian races. The plagues which have visited various countries have left them unscathed. Croup is said to be extremely rare among their children, and they have very little scrofula.—*San Francisco Chronicle.*

A large number of facts show that these statements are correct. Evidently the cause of superior healthfulness among the Jews, and especially their exemption from plagues and epidemics, is their entire abstinence from swine's flesh and other unwholesome food forbidden by the law of Moses. It furnishes a good testimony to the soundness and importance of hygienic principles upon the swine question. D. M. CANRIGHT.

Tea Drunkards.

DR. ARLIDGE, one of the pottery inspectors in Staffordshire, has put forth a sensible protest against a very pernicious custom, which rarely receives sufficient attention either from the medical profession, or from the public. He says that the women of the working classes make tea a principal article of diet, instead of an occasional beverage. They drink it several times a day, and the result is a lamentable amount of sickness. This is no doubt the case; and as Dr. Arlidge remarks, a portion of the reforming zeal which keeps up such a lively warfare against intoxicating drinks might advantageously be diverted to the repression of this very serious evil of tea-tippling among the poorer classes. Tea, in anything beyond moderate quantities, is as distinctly a narcotic poison as opium or alcohol. It is as capable of ruining the digestion, of enfeebling and disordering the heart's action, and of generally shattering the nerves.—*Scribner's Monthly.*

The Health Reformer.

BATTLE CREEK, MICH., AUGUST, 1875.

J. H. KELLOGG, M. D., : : : EDITOR.

Disinfectants and Disinfection.

SCIENTIFIC investigation has demonstrated again and again that the various impurities which arise from the decomposition of organic matter are the direct cause of at least nine-tenths of all the sickness and mortality which occur during the warmer portion of the year. Numberless instances might be cited in detail in proof of this statement; but the fact is now so generally admitted that it is unnecessary to occupy space in confirming it. The important question is, How may we avoid the evils which unquestionably spring from this source?

It cannot be denied that much, if not all, of the terrible results of air-and-water poisoning may be prevented by the employment of the proper measures. Such diseases as typhoid and typhus fevers, cholera, cholera morbus, cholera infantum, dysentery, diarrhea, and perhaps several others of kindred nature, are included in the category of preventable diseases; and, consequently, some person or persons must be guilty of negligence whenever these diseases become prevalent in any community. The subject which we wish to consider briefly in the present writing is the measures to be adopted to secure the prevention of these grave maladies.

Since decomposing organic matter is confessedly the cause of the evils mentioned, it is evident that the first importance should be attached to such measures as will prevent the accumulation of any kind of filth. Privies, drains, sewers, cesspools, and everything of like nature, should be so constructed that it will be impossible for them to become, as they usually do, nothing more nor less than hot-beds of disease. During the warm season of the year, when putrefaction is facilitated by moisture and heat, organic matter should never be left to accumulate in any quantity, for the natural processes of decay will soon convert it into a most prolific source of disease. All garbage and waste from the kitchen should be carefully removed from the premises each day, or, at least, three times a week. The contents of privies should never be allowed to accumulate for a period longer than this during the months of June, July, August, and September. The most convenient and economical way in which to manage a privy is to provide it with shallow pans, about two feet square and two and one-half inches deep, and furnished with bale and handle. Fill the pans about half full of fine, dry earth to absorb the fluid which they will receive. Several times during the day cover the contents of the pans with dry earth, and remove the whole to some suitable locality at the close of the day, or every other day, as the case may require. This method we introduced at the Battle Creek College as an experiment about three months ago. It worked admirably, and is now in operation at all our institutions here, and in a large number of the private residences in the immediate vicinity. The pans should be made of strong sheet iron, and may be made to last longer by covering them with asphaltum. Their cost is about sixty-five cents apiece. To complete our sanitary arrangements in this respect, we had made to order a convenient dumping cart which is easily drawn by one horse. With this our hired scavenger makes tri-weekly visits to all our out-houses, thus keeping them in a perfectly wholesome condition. A trifling sum, paid by each one who participates in the benefits of the scheme, amply meets all of the expenses. In this way all our sewage is removed beyond the city limits where it is used for fertilizing barren fields.

But it is sometimes next to impossible to effect the complete and immediate removal of all offensive matter, especially in cities, or where co-operation cannot be secured. In such cases, it becomes important that the next best thing should be accomplished, which is the destruction of the offending substances. This can be done in several ways. Many substances possess disinfectant properties. Some are of much greater value than others. The mode of disinfection is quite different with different classes of agents.

Some disinfectants operate by absorbing the foul products of putrefaction, and thus preventing them from working mischief by hindering their dissemination. Dry earth,

ashes, and fine sawdust, are of this class. Charcoal disinfects by causing the oxidation of obnoxious matters. Heat destroys the germs which excite putrefaction, and prevents further organic change in decomposing substances. Certain chemical agents, as chloride of lime, copperas, chloride of zinc, and nearly all caustics, destroy the products of putrefaction by chemical action. Permanganate of potash produces the same result by oxidation.

Of the several disinfectants mentioned, dry earth should be placed in the first rank; (a.) on account of its efficiency in absorbing foul gases and fluid sewage; (b.) because of the ease with which it can be obtained. In order to be effective, it must be very fine and perfectly dry, and must be freely applied. Ashes, especially coal ashes, are equally as good. Ordinary clay, thoroughly dried and pulverized, is one of the best disinfectants known.

Chloride of lime should be freely used in damp cellars, stables, water closets, drains, and every other place where dry earth cannot well be employed. Copperas, in proportion of one lb. to the gallon of water may well be used to cleanse drain pipes, to wash foul walls, casks, or anything of similar nature. Chloride of zinc is too expensive for common use. Carbolic acid is a good antiseptic, but is almost valueless as a deodorizer or disinfectant. Permanganate of potash is of very great value to use in disinfecting alvine discharges in a sick chamber. A small quantity of a saturated solution should always be kept in the vessel. If these valuable agents are properly used, a vast amount of sickness can easily be prevented. It is manifestly the duty of every friend of reform to take an active interest in all matters of this kind.

The Temperance Cause in Switzerland.

We learn that our much-esteemed friend, Eld. Andrews, who is now laboring as a missionary in Switzerland, finds great difficulty in impressing the people with anything like a proper appreciation of the importance of the temperance question. In that land of the vine, where wine is used as freely as water, moderate drinking is a universal custom, if we except those who cannot be placed in this class on account of their excessive potations of alcoholic poison. To introduce the subject of total abstinence among such people, is a task of no small magnitude. It requires indomitable perseverance, and no ordinary amount of moral courage, coupled with ample learning and ability. Since our friend possesses all of these qualifications, we are confident of his success. The following paragraph from a leading temperance journal affords a little encouragement to all who are interested in the temperance reform in Switzerland:—

"A certain class of American tourists, who cannot afford to soil their reputations by wine-drinking at home, but who drink in accordance with tradition and professional recommendation when traveling abroad, because the 'water is so bad,' will learn with somewhat of dismay that the Good Templars have actually carried the total-abstinence movement into Switzerland. A late Geneva newspaper mentions that 'the first teetotal meeting in Switzerland was held on Tuesday last in the village of Souvillier, in the Bernese Jura.' It was held in a school-room, which 'was well filled by a most attentive audience.' The speaker was a Mr. Thomas Richardson, a Good Templar, who advocated total abstinence from all kinds of intoxicating liquors as the only mode of saving drunkards, and 'of preventing the acquisition of intemperate habits by the sober.' The village pastor, M. Arnold Bovet, signed the pledge 'for six months, as a trial—in which he was supported by his wife.' Two others are mentioned as having signed the pledge, and others are expected to follow. May the good work thus inaugurated in Switzerland increase and prosper!"

The Use of Alcohol as Medicine.

In a certain class of diseases, no remedy is so greatly relied upon by the "regular" practitioner as is alcohol. Upon this he depends to support the faltering energies of his patient during the delirium of a continued fever, little realizing that by every dose he is only adding fuel to the flame and lessening the chances for the recovery of his patient. But although thousands are annually killed outright by this shameful dosing, thousands more survive to reinforce the ranks of that vast army of bloated tipplers which fills our poor-houses

with paupers, our hospitals with wretched invalids, our asylums with lunatics and imbeciles, our prisons with malefactors, and our cemeteries with victims of delirium tremens.

The temperance reform has long been most effectually antagonized by this drunkard-making process which has been carried on and stoutly defended by the medical profession in general. The labors of temperance workers have been greatly hampered by the astonishing complacence with which they have bowed to the dictum of a certain class of practitioners who persist in maintaining that alcohol is not only a very excellent remedy, but one altogether indispensable in a large number of cases. We are glad to see that this question is being agitated among the more enlightened temperance organizations, as evinced in the paragraphs which we quote below from the *National Temperance Advocate*. We may now begin to entertain a reasonable hope that the temperance reform will receive a new impetus from the present time, and that it will soon present evident tokens of real advancement, since it is evidently on the right track at last.

At the National Temperance Convention, held at Chicago last June, the following among other most excellent resolutions were adopted :—

"*Whereas*, Alcohol is generally recognized as a narcotic irritant poison, producing, by its general use, crime, poverty, and death ; and

"*Whereas*, The use of it by many of the medical profession so generally in their practice is antagonistic to the cause of total abstinence ; therefore

"*Resolved*, That we hereby express our hearty disapproval of a practice so fraught with evil, and as science has brought to light other remedies which can be substituted, we urge the medical profession to banish this enemy of temperance entirely from their practice.

"*Resolved*, That we call upon all friends of temperance to sustain the endeavors of physicians to bring about this healthful reform.

"*Resolved*, That it is the sense of this Convention that an important part of the work of the Christian men and women of this land is to use the power of their influence, individually and combined, to create a public sentiment that shall make the use of intoxicating liquors in the kitchen, on the family board, in the social circle, in the sick-room, anywhere and everywhere, so odious that none will be willing to be known as favoring its use."

The above resolutions elicited considerable discussion which brought out some very interesting testimonies in favor of the non-use of alcohol in any form or under any circumstances. The following is a summary of some of them :—

"Mrs. Watson, of England, had been sixty-five years in the hospital work in a London hospital and other places, and she found from experience that intoxicating drink to the sick man is the worst we can give. There was at present a hospital in London which was entirely on the temperance princi l e, where neither alcohol nor any such medicines were allowed to be given, and she could tell the audience that nurses from that hospital have been sent out to other cities, and the institution had become famous.

"Chaplain Lozier intended to create a public sentiment which would proscribe intoxicating liquors everywhere. Drunkards were not made by low saloons, but by physicians and in drug-stores. The advocates of temperance need not fear so much the open saloon as the drug-store and the class of physicians who prescribe liquor.

"Mrs. Thickstun, of Iowa, thought if there was any place where alcohol should be abandoned, that was the sick-room. She had known strong temperance men in life die dead drunk by the prescription of a family physician, a member of the church. She wanted her friends to die sober (applause), and if they must lose their friends, do n't let them be drugged with alcohol, but let them go sober, and in their right minds to the God who gave them their life."

Dr. N. S. Davis, of Chicago, a practicing physician of considerable eminence, is reputed as saying at the recent convention, in reference to alcohol, "Its applicability as a remedy in the treatment of disease is extremely limited ; so much so that it might be wholly dispensed with without any injury to the sick."

The London *Temperance Record* gives the following in the report of the London tem-

perance hospital, which is under the charge of Dr. James Edmunds :—

"The special purpose for which this hospital was established—that of ministering to the sick, and seeking, by the divine blessing, to remove disease, without resorting to alcohol as a medicine—has been prosecuted with fidelity and success. Intoxicating liquors of all kinds, often so profusely and expensively supplied in other hospitals, are absolutely excluded ; and the administration of alcohol even as a drug has been entirely dispensed with during the year by the medical officers, without incurring any risk or delay in recovery, and with advantange rather than detriment to the treatment of the patients at large. Even as a pharmaceutical solvent and vehicle, alcohol is now practically ignored by the medical staff. In not a few cases of extreme severity where, in general practice, considerable quantities of alcohol would have been ordered, the results obtained, in the absence of that drug, have tended to invalidate the so-called 'stimulant system.' The death-rate for the whole period of the hospital work has been only six per cent—one far below the average in hospitals, and a notable fact, considering the trial to which a young institution is necessarily exposed."

The last surgical report of this hospital is also of deep interest. Although more than three hundred patients received surgical treatment, quite a large number of severe operations being performed, every case was wholly successful, no patients being lost. And yet, notwithstanding the reputed value and necessity of alcohol in such cases to sustain the strength of the patient, the surgeon, Dr. Moore, is enabled to say, "Amongst the three hundred and six patients who have been under surgical treatment, it has not been deemed necessary in one single instance to administer alcohol in any shape or form."

Here are a few facts well worth the consideration of those who advocate alcoholic medication.

The "Tribune" Groggery.

WHEN the lamented Horace Greeley was alive, the *Tribune* was universally known as the organ of reform. No man was a greater friend to temperance than Mr. Greeley. His clear intellect could see no wisdom in the deceptive schemes of moderate drinking, and increased use of wines and malt liquors. The following paragraph from his pen states his position clearly :—

"They greatly mistake who, in this country, hope to live longer by drinking wines or malt liquors than they would expect to if addicted instead to distilled spirits. True, there is less alcohol in the same quantity of the fermented beverages, but *the same quantity will not content them.* Deceive themselves as they may, it is the alcoholic stimulus that their depraved appetites exact; and, if indulged at all, they will be indulged to the constantly-receding point of satisfaction. The single glass of wine or beer per day which sufficed at the beginning, will soon be enlarged or repeated. It was enough to start the blood into a gallop yesterday, but falls short to-day, and will not begin to do to-morrow. And, even were the fact otherwise, the wines and malt liquors drank in this country are nearly all so adulterated that drinking them would be foolhardy, even if those liquids, when pure, were naturally wholesome, instead of being the poisons they are known to be."

Since the death of Mr. Greeley, the *Tribune* has changed its position on the temperance question, standing now as an advocate of moderate drinking, and thus affording encouragement to those who traffic in poison, and grow rich on human woe. As the result of this perfidious recreancy to the principles so ably advocated by its able founder, we now behold the disgusting spectacle of a magnificent structure ostensibly devoted to the cause of reform and true progress, but founded upon a vile groggery. Hundreds of journals throughout the land are stigmatizing, in unstinted terms, the course of the proprietors of the *Tribune* in allowing the basement of their elegant new building to be devoted to the sale of intoxicating liquors. This course is not so very inconsistent, however, with the present principles of the journal ; for it affords a fair illustration of the intimate relation between moderate drinking and drunkenness. In the top of that great edifice, sits the editorial staff, advocating and practicing moderate tippling, while in its basement, the confirmed inebriate quenches his insatiable thirst with fiery draughts of liquid poison, and reels out of its gilded doors a fit representative of the result of such pernicious teachings.

People's Department.

The Health Reformer.—This journal is all that its name indicates. Over a year ago I ordered it to the address of an old acquaintance and esteemed friend in Wisconsin. To-day I received a letter from the family, in which the wife writes:—

"We wish you to know that the REFORMER has reformed one tobacco lover after forty years slavery. It is almost a year since my husband has tasted the weed in any form, and does not desire it at all. May God bless you and the cause in which you labor."

Such news as this is full of encouragement. The REFORMER is a power in the land for good, and is every way worthy of the support it receives. J. H. WAGGONER.

Gilroy, Cal., June 18.

The writer of the above has been engaged in the work of reform for about a quarter of a century, and is now one of our staunchest friends. The report which he sends us gives us new courage to persevere in this noble work. How rapidly the work of reform would progress, and how many victims of filthy and ruinous vices would be reclaimed who are now in bondage, if every subscriber to the REFORMER would follow the excellent example of Eld. Waggoner. Have we been benefited? then let us take an interest in securing benefit to others.

Scarlet Fever.—I am not a doctor, nor the son of an M. D.; but I will tell you how I treated scarlet fever and cankered throat; and if this is worthy of a place, you can use it. The first patient that was taken was sick two days and a half before we knew what was the matter, and the second, a day and a half, having never seen a case before. Treatment: Pack of twenty minutes, followed by thorough wash and hand rub, after bathing feet in hot water. Throat was kept packed continually with cold wet cloths, and ice taken freely. The other three cases were treated as soon as they showed symptoms with vapor baths to commence with, followed with other treatment as above. Two of them were confined to the house only one day. The first was confined from eight to ten days. Our neighbors had one boy with the fever, and the doctor with his advice and dose. The father and mother did not go to bed for a week; we did not lose an hour's sleep with our five. We opened the doors and windows, and let the January air into every corner of the house, irrespective of the caution of friends who took me to be a monster in human form. JAS. LIDSTONE.

One of the most engaging features of the hygienic system of medication is its eminent adaptability to general use. It does not require an intimate knowledge of all the mysteries of chemistry that one may be able to apply both safely and efficiently the potent agents recognized by hygienic therapeutics. Most cases of simple acute disease can be well treated by any one who is able to recognize the character of the malady, and is accustomed to administering hygienic treatment. There is no danger of giving a man so large a dose of warm water that he will die in consequence, as is often done with drugs. Proper remedies are safe as well as potent; and we wonder that the suffering thousands who are daily dosed with vile drugs and poisonous compounds do not more quickly see the folly of their course and "throw physics to the dogs."

Every father and every mother in the land ought to be thoroughly competent to treat all the cases of ordinary disease which may occur in the family. To assist in thus educating the common people is the especial mission of the HEALTH REFORMER. Let all who are interested in the welfare of humanity assist us in this work, and we shall be able to accomplish much.

Hair Dye.—Reading a piece entitled "Hair Dyes" brings to mind a case which has come under my observation, and which I have often felt should be published world-wide, that this fatal evil may be avoided by those who have not yet become its victims.

The case is one of a cousin of mine, with whom I have been intimately acquainted—a next door neighbor—by whose side I have lived for the last eighteen or twenty years. Formerly, she has been a woman of good capabilities, naturally of a business turn, who had an eye to every department of business, and a care that everything was managed prudently. Now she is a mere wreck, not capable of taking care of herself or anything else. For some weeks she has been an inmate of the insane asylum. For a number of years she has made a common use of hair dye, and for the last three years she has realized that it was injuring her. She left its use some months ago, but not till its evil effects had

become manifest. Not only has she suffered from dizziness, but a fearful pressure upon the brain, gradual loss of sight, memory, and the faculties generally. With loss of faculties, she has suffered great depression of spirits; says she shall never be any better, and that she has brought it all upon herself. Not unfrequently does she raise her voice in warning others not to use "hair dye." To her own mind, and that of some of her friends, her present condition is clearly the result of its use. It is also the testimony of her family physician, who pronounces her case incurable. Terrible result! Methinks it is sufficient to convince any one familiar with the case that in letting these preparations alone is the only safety.

The blessed Bible says, "The hoary head is a crown of glory, if it be found in the way of righteousness."

Let none, though proud, hazard their health and lives to hide the silvery locks which time brings to all as they advance in years; but rather let us walk in ways of right doing, and seek the hidden adorning of the meek and quiet spirit, that we may live to bless our fellow-men, and honor God with our faculties, though our whitening heads may give evidence to all that time is making its impress upon us. To all who read this let me say, Beware of hair dyes.

M. E. U.

The popular use of hair dye is very reprehensible. Not only is great violence often done to all rules of propriety and fitness, but incalculable mischief is wrought in the system of the user by the poisonous ingredients of which the dyes are made. The cases in which the use of a hair dye is admissible are very rare indeed. If such cases do occasionally occur, the only harmless dye with which we are familiar is a saturated solution of permanganate of potash.

Salt.—Some years since, an enterprising farmer living in this vicinity was severely injured in the stomach by an unruly bull. His intestines would have fallen out, but with wonderful courage this man gathered up the falling stomach, and held it there until he could reach his bed; and there he lay heroically still until the wound was stitched and healed. It was the wonder of all that he recovered; but a stern will and a determined fortitude, and a will to recover, have much to do with such a recovery from such a terrible wound. But although outwardly healed, this injury is of a permanent character; for the bowels are in a measure displaced, and fall below the usual position, and a strong wide band is necessary to keep the intestinal system in position for labor. There is also a constant tendency to fever, which is often reduced by cold compresses.

This intelligent and practical man avoids the use of salt as much as possible; vegetables he eats wholly free from salt. If by any means he gets his food too salt, he feels it in a few minutes, and the bad effect lasts about twenty-four hours. He feels it important to keep down fever of the injured parts; and as sudden mortification might take place, it behooves him to be careful. Of nothing is he more positive than that salt food induces fever in the intestinal system from his personal experience. It is only by the greatest economy of his strength that he is able to do the work of a new farm in the woods.

I have just conversed personally with Mr. —— of whom I relate this unfortunate event, and he endorses what I have written; but his severe trial is not wholly without its use, if it will conduce to the enlightenment of any upon the subject in hand. Our friend is not committed upon the health reform, but is very careful in his diet, and is systematic in all his business affairs. He is of a nervous temperament, very conscientious in his dealings, yet makes no profession of religion, and is a great hater of hypocrisy.

Very few men, with such a weakness, would farm in summer and lumber in winter; he measures his ability to perform his task, and then comes up to the point in almost all cases.

JOSEPH CLARKE.

The above is one of the numerous testimonies against the use of salt as an article of diet which have been sent to us since the recent discussion of the question through the pages of this journal. We have been rather surprised at the fact that, without exception, the communications which we have received upon this question have been in support of the position which the REFORMER has so long held and advocated. Our space will not allow us to publish at present all that we have received upon this subject though much of it is very interesting.

Circulate the Reformer.—Mr. Editor: Sir, I am well pleased with the effect produced by your sending the REFORMER to a family as I requested last spring with the promise that I would note the result. We have converted one man from the error of his way, and se-

cured a co-worker in the cause of health reform. Graham bread takes a regular stand on his table; flesh and the consequent condiments seldom appear; tea and coffee go a begging. One of his nearest friends is following his example; and, although having only read six numbers of the REFORMER, he has thrown away tobacco and the pipe, substituted brown bread for white, and declares he already sees a decided improvement in his health. Chronic invalids are being improved in feeling and spirits. Mothers and daughters begin to see the follies of fashion, and are growing, at least, less hostile to the dress reform. Thus, by a little effort, and the kindness and liberality of the publishers of the REFORMER, it has become like leaven "hid in meal," the whole neighborhood will become leavened with the principles of progress and reform. We hope to save enough for these individuals to enable them to become constant readers of the REFORMER as well as many of the excellent works published by our reformers, until to be sound in body and mind will be considered a religious duty, and people will be as ashamed of sickness as of moral sin.

F. S.

Here is another testimony to the value of reform and the great benefit which may be done by a very slight effort. The principles of hygienic truth are so simple and harmonious that their simple presentation is all that is necessary to convince the candid and intelligent of their value. Agitate and circulate reformatory ideas, and eternity alone can determine the amount of good that may be wrought. No labor pays so well as that which is put forth for the purpose of benefiting and elevating humanity.

A Salt Item.—I have a neighbor who, when a boy, thought "Salt was good," and so he kept a lump of it in his mouth upon nearly all possible occasions. As a result, at the age of about sixteen, his gums perished to that extent that his teeth all came out, also leaving him without gums, so that he could not wear false teeth. Since that time, he being now about fifty, his nose and chin have been close neighbors.

WM. EVANS.

Hamilton, Caldwell Co., Mo.

Thanks to our friend for this item of "*experience*" on the salt question. We are very glad to receive all items of practical experience which bear upon the great questions which hygienists are agitating and discussing with the rest of the world. It would seem, from the fact stated above, that the action of salt upon the human system was not that of a "preservative," in that case at least. According to a theory recently proposed in favor of the use of salt, the poor man's teeth ought to be now in the finest state of preservation. "Facts test theories." Let us have some more testimony on this point.

Cure for Dyspepsia.—The following advertisement appeared in a late paper: "Sure cure for dyspepsia. Inclose $1.00 and address ——." One sufferer complied and received the following brief but sensible prescription: "*Stop drinking, and hoe in the garden.*" Being of the class who intend to get value received, he tried and found it better than an apothecary's shop of medecine.

Thinking that the REFORMER can afford to furnish the same receipt at reduced rates, I forward this to you. J. L. BOYD.

Questions and Answers.

TORPID LIVER—PARALYSIS.—Mrs. S. H. G.: Your husband is evidently suffering from the effects of a diseased liver. He has also a tendency toward paralysis. If he wishes to regain health, he must adopt a hygienic diet, and take as much out-of-door exercise as he can. Wet-sheet-packs, wet-hand-rubs, fomentations over the liver, and such local applications to the eyes as may be required, are the appropriate methods of treatment to adopt. He must become a thorough hygienist in all his habits if he hopes for any relief, since the causes of his difficulties lie in unhygienic habits.

ABDOMINAL TUMOR.—H. M. V. S. states: Mrs. J. H. G. is troubled with swelling in right side of abdomen with soreness. Swelling increases and extends toward the left side. She is able to work moderately. Would like to know what course to pursue.

Ans. The symptoms described are such as should excite strong suspicion of an abdominal tumor; probably ovarian. She would do well to apply to the best physician within her reach for a local examination to determine positively the real character of the growth.

HEAVY BREAD—FAINTNESS.—Mrs. S. A. Johnson: We answer your inquiries as follows: 1. It is possible that your failure to obtain light, unfermented bread was due to some error in making it. 2. Good yeast bread is better for

health than heavy unfermented bread. 3. Regularity in eating is essential to continued health. The faintness which you feel before meals is not a natural demand for food. It is rather an expression of weariness on the part of the stomach. Instead of taking food, take a few sips of cool water, and lie down and rest.

CHRONIC RHEUMATISM.—F. S. asks: 1. Can chronic rheumatism be cured by home treatment? 2. Do you think rheumatism of one year's standing curable by home treatment? 3. What would be the probable cost of a course of treatment at your Institute?

Ans. 1. It might, if treatment were skillfully applied. 2. Yes; under favorable circumstances. 3. According to the length of time required. Send for circular for prices.

WEAK VOICE.—What mode would you recommend to strengthen a person's voice, when it has been lost through sickness or other causes?

Ans. Careful attention to the general health; suitable and systematic exercise of the voice; the application of electricity to the throat. Much depends upon the immediate cause of the difficulty.

CONSUMPTION.—I. D., Wis.: It is to be feared from your statement that your lungs are badly affected. We cannot encourage you that home treatment will be of any benefit to you. You had better go at once to a good health institution.

LEMON JUICE FOR CONSUMPTION—SLEEPLESSNESS.—Mrs. T. H. R., Pa., says: 1. Lemon juice thickened with loaf sugar and used plentifully has been recommended for consumption; please answer through the REFORMER your idea of it. 2. Also for liver complaint. 3. What treatment for sleeplessness when one is trying to live hygienically, be quiet, and often in the open air, and yet wakeful?

Ans. 1. Lemon juice either with or without sugar, in either great or small quantities, is of no value whatever as a remedy for consumption. It is less injurious without sugar than with it. 2. It is of no greater value as a "cure" for "liver complaint." 3. Eat no supper, avoid all mental labor at night, retire early. If sleep does not come, have the back and limbs gently rubbed by an assistant. The proper application of electricity is an excellent remedy. The wet-sheet-rub is also valuable.

GRAPE JUICE.—J. R., Ind., asks, Would grape juice, unfermented, used in moderation, be beneficial to health?

Ans. It would not be especially injurious, though it might be of no particular benefit.

VINEGAR WORMS.—M. C., Iowa, asks: Is any part of all vinegar worms visible to the naked eye?

Ans. No; the animalculæ to which you refer require a good microscope to show them well.

SALT-RHEUM.—W. M. N., O.: Your friend is probably suffering from salt-rheum. The remedy is to live strictly in accordance with the rules of hygiene, and improve the general health. It is very essential that the diet should be right.

SORE EYES.—P. A. W., O.: We can tell little about your child's eye without an examination; but we suspect that it is suffering from granular conjuntivitis. It should be treated at once by a competent surgeon or the child may lose its sight.

SALT.—A. C., Ill., wishes to know if salt is poisonous why it is that it does not affect injuriously those who live by the sea-side.

Ans. Salt is not a volatile substance any more than sand or glass; hence, the amount of it that can be present in the air must be infinitessimal. Less than a homeopathic dose of the thousandth attenuation would be the quantity taken in at a single inspiration. Tobacco is a much more powerful poison than salt; and yet we survive its deadly effects notwithstanding the fact that we inhale its fumes with every breath we draw whenever we walk along the streets of the city.

MAMMARY TUMOR.—A correspondent writes that her daughter, aged eighteen years, is troubled with a lump in her right breast about the size of an old-fashioned cent. It causes her considerable pain at times, and seems to be growing worse. Wishes to know how to remove the difficulty.

Ans. There are many kinds of tumors of the breast. Some of them are malignant, while others are not of a dangerous character When the symptoms are such as you describe, there is reason for suspicion that the disease may be of a cancerous nature. We should not be able to decide without a careful examination. If it is cancerous, it should be removed as soon as possible, as that is the most promising means of cure in such cases. Consult no one but competent surgeons on the subject. Constitutional treatment is important to maintain the general health. Perhaps a short stay at some health institution would benefit her.

A PHYSICIAN writes, asking the renewal of a note, and says: "We are in a horrible crisis; there is not a sick man in the district."

DIETETICS.

Preserving Fruits and Vegetables.

CANNING and drying are the only methods of preserving fruits and vegetables which are at all hygienic. Pickling in salt or vinegar, and saturating with sugar, are eminently unhygienic methods, as they render the article preserved wholly unfit for food.

CANNING FRUIT.

Canning fruit is a very efficient means of preserving it in a wholesome condition, but it is a process which demands careful management to make it a success. Tin cans are sometimes used, but glass cans are now so cheap and are so much better that they should always be preferred. In the end they are cheaper, as they last much longer than tin cans. Tin cans are liable to injure the flavor also. There are several excellent kinds of fruit cans in the market.

In canning fruit two things must be most carefully attended to or failure is certain:—

1. The fruit must be sufficiently cooked.

2. The air must be excluded and the can hermetically sealed.

The best fruit should be selected, and that which is not overripe. It should be kept as clean as possible, so that little or no washing will be required, as this is injurious to many fruits. Pick over carefully, and wash quickly if washing is necessary. Either steam or stew, adding as little water as possible, and as little sugar as will suffice to make the sauce palatable. Sweet fruits require none at all, and none is necessary to the preservation of the fruit. Steaming is rather preferable to stewing or boiling, as the fruit is less broken and its natural flavors are better preserved. A porcelain-lined kettle should be used, as all kinds of metal kettles are likely to be corroded by the acids of the fruit.

The fruit need not be cooked so much that it will fall to pieces, but it should be so thoroughly scalded that every part of it will be subjected to a high degree of heat, in order that all of the germs from which fermentation originates may be destroyed. Simply heating is not sufficient.

While the fruit is cooking, prepare the cans in which it is to be placed. Thoroughly scald them so that there may be in them nothing which will induce decay. To prevent breaking when the hot fruit is placed in the can, it may be heated by pouring into it hot water and quickly shaking it so that all parts may be heated equally, or the can may be placed in cool water and gradually heated to the requisite degree. Dry heat is equally efficient, and may be applied by keeping the cans in a moderately hot oven while the fruit is cooking. Some place the cold can upon a folded towel wet in cold water which cools the bottom and so prevents cracking. This method is very convenient.

When the fruit is properly cooked and the cans are in readiness, first place in the can a quantity of juice, so that as the fruit is put in, no vacant places will be left for air, which is sometimes quite troublesome when this precaution is not taken. Then add the fruit itself. If any bubbles of air chance to be left still, work them out with a fork, spoon handle, or straw. Fill the can full, and immediately put on the cover and screw tightly on. If the can is unpleasantly hot, it may be securely held by passing a towel around it and twisting the ends together. As the fruit cools, the cover can be tightened, and this should be promptly done, so that no air may be allowed to enter. Sometimes the fruit will settle so that a little space will appear at the top. If you are sure the can is tight, do not open to refill, as you will be unable to make the can quite as tight again unless you reheat the fruit, in which case you would be liable to have the same thing occur again.

After filling and tightly sealing, place the cans in a cool place and watch them closely for two or three weeks, when they may be set away if there are no signs of fermentation. Should any such signs appear, open the can immediately, scald the fruit thoroughly, and seal as before, being very careful to examine the cover and see if there is not some imperfection which prevents the perfect exclusion of air.

Small fruits and tomatoes may be preserved in bottles or jugs by sealing with wax. Thoroughly heat the bottle or jug, and put in the fruit, first putting in juice as when using cans. Shake down well, and refill. Then place two thicknesses of cloth over the mouth, insert a tightly-fitting cork, and thoroughly cover the whole with melted wax made according to the following or some equally good recipe: One pound resin, two ounces beeswax, and one and one-half ounces of tallow. Melt and mix.

When canning in glass vessels, care must be used to protect the vessel from draughts of cold air, or they will be liable to break.

Apples, pears, quinces, and peaches, should be pared and cut into pieces small enough to can conveniently. In canning, they may be arranged in the can with a fork, if desired, the juice being afterward added, but care must be exercised to get out all air bubbles which are very liable to occur when this method is adopted. The skins may be very

expeditiously removed from peaches by immersing them in boiling water for a minute or two, and then rubbing with a coarse towel. This is best done when they have just reached maturity, but have not become very mellow.

CANNING VEGETABLES.

In canning pumpkin or squash, the same general rules should be followed as in canning fruits. They may often be placed in the same cans in which fruit has been kept after the canned fruit has been used, as they will keep without canning until January, or even later, with care.

Many people fail in their attempts to can green corn. The principal cause of failure is too slight cooking. Merely scalding is not sufficient for green corn. It must be thoroughly cooked, and then there is no greater difficulty in keeping it than in keeping any kind of fruit. With thorough cooking, glass cans are just as good as tin. Drying is usually considered a better method of preserving green corn, peas, and similar articles, than canning.

DRYING FRUITS AND VEGETABLES.

The great secret in drying fruits and vegetables is to dry as quickly as possible without subjecting them to so violent a heat as to burn them or injure their flavor. A little ingenuity will enable a person to devise many convenient and inexpensive methods by which artificial heat can be applied at once to a large quantity of fruit or prepared vegetables, such as peas, beans, or sweet corn. Drying under glass in the sun is a very good method. Juicy fruit, like cherries and small fruit, can be more quickly dried after being scalded. Green corn should be scalded so as to "set the milk," after which it should be cut from the cob. A very excellent way of removing it from the cob is to shave off the tops of the kernels with a sharp knife, and then scrape the ear with the back of the knife; the kernels will thus be pressed out, leaving the hull behind, adhering to the cob.

"The most expeditious mode of drying is by means of the oven; but the drawbacks are interference with cooking operations and danger of scorching; a little forgetfulness, or lack of close attention, and the whole is spoiled. Perhaps the best arrangement for drying on a small scale, is by means of a rack, made for the purpose, and placed by or over the kitchen stove. Any one of a little ingenuity can make it, and the shape and size will be governed by the place where it is to be used. A light frame constructed so as to hold a series of trays, from six to twenty in number, is a very convenient arrangement. The trays may be made of strips of wood, a sufficient distance apart to allow the circulation of air between them.

"For the quick drying of small fruits, green corn, etc., a frame may be made to stand directly over the stove, and constructed in the following manner: Nail together a square or oblong frame, and attach to it four legs or supports, long enough when standing on the floor to raise it about a foot from the top of the stove. Across this, stretch musquito netting, supporting it in the center by cross-bars, running each way. If the frame is large, several supports will be required, or the netting will 'bag,' and the drying will be uneven.

"Fruit dries very quickly upon this, and will need watching to prevent scorching. It may be partially dried upon this, and finished in the sun if desired, to make room for more.

"Another method of drying, and one which is often practicable among fruit growers and gardeners, is by the employment of the hot-bed, which is generally unused for other purposes in the season of fruit drying. All the change necessary in its structure, is the laying of a floor on which to spread the fruit. The sash should be raised two or three inches to prevent the fruit from becoming scorched under the rays of the sun."

To preserve dried fruits and vegetables, heat them thoroughly just before putting away, and then hang up in paper bags in a dry place.—*Cook Book.*

Physical Strength of the Irish.

THE English people, with their robust frames and hardy constitutions, are often cited as an argument in favor of meat-eating, their physical condition being attributed to their large use of animal food. This argument is found to have little weight when the exact condition of the masses of the English people is taken into the account. It will be seen by the following paragraphs that the Irish people are much superior in physical condition to their English neighbors, although the average Irishman does not eat so much meat in a week as an Englishman does in a single day, his chief food being potatoes:—

"Considered merely as a source of animal power, it is gratifying to have it proved that, when well fed, there is no race more perfectly developed as to physical conformation than the inhabitants of Ireland. Professor Forbes instituted an extensive series of observations of the size and strength of the students at-

tending the University of Edinburgh, who may be considered as fairly representing the middle classes of their respective countries, and I have subjoined the similar results of Professor Quetelet, regarding the students of the University of Brussels. The strength indicated is that of a blow given to the plate of a spring dynamometer :—

	Av. height in inches.	Av. weight in lbs.	Av. strength in lbs.
English	68¼	151	493
Scotch	69	152½	423
Irish	70	155	532
Belgians	68	150	339

"The Irish are thus the tallest, the strongest, and the heaviest of the four races. Mr. Field, the eminent mechanical engineer of London, had occasion to notice the relative powers of British and Irish laborers to raise weights by a crane. He communicated his results to the Institute of Civil Engineers in London. He found that the utmost effort of a man lifting at the rate of one foot per minute ranged :—

Englishmen .....from 11,505 lbs. to 24,255 lbs.
Irishmen..... " 17,325 lbs to 27,562 lbs.
The utmost effort of a Welshman was 15,115 lbs.

Recipes.

GREEN CORN CUSTARD.

No. 1. Peel and shred sweet, mellow peaches. Add an equal quantity of grated sweet corn, and the same quantity of water. Mix well and bake in an earthen or porcelain baking dish for twenty minutes or half an hour. A little corn starch may be added for thickening, if necessary. Excellent without dressing of any kind.

No 2. Another custard can be made by using one part corn to two parts juicy tomatoes, peeled and sliced.

Grated apples, sliced plums, or almost any kind of fruit may be thus used with green corn.

To Cook Rice.—The following is a method recommended by the French Academy for cooking rice during the siege of Paris. Take one cup of rice and one-fourth of a cup of water in a saucepan, cover, and place over a good fire ; after an hour, the water will be evaporated, and the rice cooked tender, but dry, and with the grains distinct—not in a paste. Care should be taken not to disturb it while cooking. The *Boston Medical and Surgical Journal* says that rice cooked in this manner, which is the same as that employed in the East Indies, bears the same relation to the indigestible paste of the New England kitchen as does bread to boiled flour.

Action of Salt on Trees.—Dr. Kedzie, of the Michigan Agricultural College, gives the following account of the injurious action of salt on trees : " On the college grounds there formerly grew a fine, vigorous specimen of common sassafras, apparently in perfect health. A quantity of strong brine was inadvertently thrown beneath this tree, forming a stagnant pool in its immediate vicinity. In a very short time the tree began to manifest signs of decreasing vitality. The salt was absorbed unchanged in such immense quantities that, entering the circulation, it effloresced upon the surface of the leaves as a white crystaline deposit, and the tree soon after died."

The Best Way of Roasting Chestnuts.—In the South of France chestnuts are first put into a pan of cold water, placed on the fire, and boiled until nearly soft. They are then taken out, each chestnut receiving a small slit on the rind with a knife, after which they are put into a large flat pan (an ordinary frying pan would do) and tossed over a glowing fire until they become dry and mealy.

How to Peel Onions without Tears.—Few persons can peel onions without shedding tears over them. This serves to wash the onions preparatory to cooking them. A scientific cook has recently discovered, however, a neater way of washing them, at the same time as they are being peeled, and all without tears. It is simply to nearly fill a deep pan with water, and to peel the onions beneath its surface. It is a small discovery, but it will save oceans of tears.

An Ohio mathematician has discovered that one man dies from the use of alcohol every seven minutes, and that those who have died from its effects during the last fifty years would bridge the American continent from ocean to ocean, allowing three feet to each body.

It is stated that the utmost capacity of a population to consume grain in the form of food is eight to ten bushels per capita per annum. The grain product of the commercial world, however, amounts to eighteen bushels per head, giving an excess of supply which necessarily makes agriculture unprofitable.

A western journal, probably wishing to do the handsome thing by the local doctor, recently announced "that Dr. C. was called in, and, under his prompt and skillful treatment, the young man died Wednesday afternoon."

SEASONABLE HINTS!

Sanitarium for August.

CHOLERA infantum continues its ravages among the children, the main causes being bad nursing, diseased milk, improper food, and impure air. Of course the best remedy is the removal of the causes. When the mother cannot furnish healthy food, milk from healthy cows, or oatmeal gruel, must be substituted. Summer complaints of all kinds also continue to prevail without abatement. Thousands die victims to drug medication, while thousands of others survive in spite of both disease and medicines, but with shattered constitutions and ruined health.

Additional care should be exercised to prevent the production of poisonous effluvia by animal or vegetable decay. Compost heaps, hog-pens, and cattle-yards, must be kept at a long distance from human dwellings. The hog-pens would better be dispensed with altogether.

Let the diet be mainly composed of ripe fruits and grains. Little flesh food should be eaten, as it furnishes a poor quality of blood. Cooling drinks, made from the juices of fruits, may be freely used; but large quantities of iced water should be avoided.

Putting Things to Rights.

"THE place of a comet," says a writer on domestic topics, "may be accurately calculated after certain perturbing influences have acted upon it, but the locality of a bootjack, when that humble article is wanted, is seldom exactly computed by the masculine brain." The same remark could too often be applied with equal truth to coats, hats, dressing-gowns, slippers, gloves, and articles innumerable in daily use. It would be quite as difficult for the orderly housewife to compute an eclipse as to reckon up the time she spends from one year's end to another in hunting up articles that are out of place, and in putting in place things "lying round." Now, though time spent in making home neat, orderly, and inviting, cannot be considered as wasted, yet, if the principle of division of labor in putting things to rights were religiously practiced, there is no telling how much valuable time might be saved. It is comparatively an easy thing to have a place for everything, but to keep everything in its place, "ay, there's the rub." Before we know it, hats and caps cover the sewing machine instead of the hat rack, overcoats lie on the backs of chairs, books are laid on the organ, overshoes ornament the hearth rug, and the mantle piece—what small articles may we not hope to find there? pens, inkstand, small change, vials of medicine, collars and cravats, cuff buttons, letters, bills, and what not, rest there in rich profusion and admired disorder. One of the benefits that the mother of sons can confer on her own sex and on all the world beside, is to form in them the habit of putting things in place. This can be done only by following them round and requiring them when they are through with a library book to put it on the shelf where it belongs; when they take off their overcoats, to hang them on the rack; when skates are unstrapped or boots taken off, that they be put somewhere else beside on the hearth rug or under foot; when slippers are removed, that they at once rest in their appropriate case. The law of habit thus imposed will gradually extend its domain till it includes everything the boy handles or calls his own, and exercises an influence on all he is and does. In a house inhabited by such men and boys, putting things to rights will occupy a very brief daily interval.—*N. Y. Tribune.*

Diseases of Artisans.—The diseases incident to the following of various trades are considered in detail by a German physician, Dr. Hirt, in his work, "Diseases of Artisans." The effects produced by the inhalation of certain gases are discussed by the author in the second division of his work. With regard to carbonic acid he confirms previous observations of the acute affections produced by it, but he does not find the slightest evidence in favor of chronic intoxication by the constant inhalation of small quantities of the gas. In the processes of beer-brewing, wine-making, distilling, and yeast-making, considerable quantites of carbonic acid are given off, but, wherever the ventilation is good, no injurious effects are produced. He appears to have no doubt of the occurrence of chronic poisoning by the action of sulphuretted hydrogen. The symptoms are generally weakness, depression, and usually total loss of appetite, combined with a feeling of weight on the stomach; the tongue is furred. Bisulphide of carbon, obtained by passing sulphur-fumes over burning coal, and subsequent distillation, is now much used as a solvent of India-rubber. It produces chronic poisoning. The symptoms are, at first, evening headache and pains in the limbs, sometimes intellectual excitement, often cramps, difficulty of breathing, and increased frequency of the heart's action. After some weeks or months, follows a period of depression, heaviness, insensibility of some

parts of the skin, diminution of sight, and in some cases of hearing. The bad-smelling gases and effluvia given off from putrefying animal substances are said to be innocuous. The trades exposed to such emanations are tanners, soap-boilers, candle-makers, etc. Workmen get accustomed to the fumes of turpentine, and then such fumes appear to have no injurious effects.—*Popular Science Monthly.*

How to Avoid Contagion.—The ordinary kind are such as are communicated by contact, by coming near enough a sick person to breathe into the lungs, and swallow with the saliva into the stomach, certain solid particles which have become detached from the invalid, and which speedily find their way into the blood and poison it. Among these are the following:—

Scarlet Fever,	Diphtheria,
Measles,	Small-Pox.

Persons who breathe through the nose only, and avoid swallowing, in the sick chamber, may come out of it unharmed; for the solid particles are arrested in their long circuitous passage through the dampened channel which leads from the nostrils to the windpipe. An additional safeguard is to sit so that the draught of air may be from you toward the patient; hence, not between him and the fireplace, toward which there is always a current passing, whether there is any fire there or not.

What to Do in Case of Accident.—Professor Wilder, of Cornell University, gives these short rules for action in case of accident. It would not be a bad thing to cut them out and carry them in one's pocketbook, or commit them to memory:—

For dust in the eye, avoid rubbing; dash cold water in them; remove cinders, etc., with the round point of a lead pencil.

Remove insects from the ear by tepid water. Never put a hard instrument into the ear.

If an artery is cut, compress it above the wound; if a vein is cut, compress it below.

If choked, go upon all fours and cough.

For slight burns, dip the parts in cold water; if the skin is destroyed, cover with varnish.

For apoplexy, raise the head and body; for fainting, lay the person flat.

Elastic Varnish for Ladies' Shoes.—Three pounds of rain water are placed in a pot over the fire, and when well boiling there are added four ounces of white pulverized wax, an ounce of clear, transparent glue in small pieces, two ounces of pulverized gum Senegal, two ounces of white soap scraped fine, two ounces of brown pulverized sugar; the ingredients are placed in one by one, and every time stirred up; it is well to take the pot from the fire every time a substance is added, to prevent boiling over; when all is added, the pot is removed from the fire; when sufficiently cooled, three ounces of alcohol are added, and finally three ounces of fine Frankfort black, well incorporated by continued stirring. This varnish is put on the leather with a brush, and is very valuable for boots and shoes, as it can be afterwards polished with a large brush like ordinary shoe-blacking, shows a high polish, and does not soil the clothing.—*Sel.*

Indian Treatment of Quacks.—It is not often that the customs of Lo cause us to regret that they cannot be adopted into what is called civilized society; but when we learn that the Piutes of Surprise Valley recently sent their doctor to the happy hunting grounds for malpractice, we are compelled to stifle a sigh at the thought that there is a prejudice against killing quacks in this sophisticated community.—*Sacramento Record.*

A British scientific publication gives the following: "Many of your readers have doubtless had more or less trouble, at some period of their lives, in repairing water-pipes where the water could not be shut off conveniently at the fountain-head or some intermediate point. In going to my office a few days since, my way led past a place where a man was repairing a lead pipe which had been cut off accidentally in making an excavation. There was a pressure of water more than fifty feet head. His plan seemed to me to be novel and ingenious. The two ends of the pipe were plugged, and then a small pile of broken ice and salt was placed around them; in five minutes the water in the pipe was frozen, the plugs removed, a short piece of pipe inserted and perfectly soldered, and in five minutes the ice in the pipe was thawed and the water flowing freely through."

Several ladies in Nashville have signed an agreement to abstain from all outward adornment on Sundays, wearing only the plainest sort of apparel. Ruin is thus threatened to the millinery establishments, there being no place left in which to display the last sweet thing in bonnets.

SCIENTIFIC.

THE water of a much-esteemed mineral spring in England was, on chemical analysis, found to contain in very large proportion every known form of impurity; viz., oxidizable organic matter, ammonia, chlorides, nitrates, nitrites, living organisms, and decaying vegetable matter.

Two instances are mentioned in the *Lancet* of undoubted transmission of disease from human beings to domestic animals. In one case, whooping-cough was communicated to a cat from children. In the other case, dogs took small-pox from persons suffering from that disease.

A VIRULENT disease of the lungs, bearing some resemblance to the *epizootic* which appeared in the United States about two years ago, broke out among the horses at Hull, England, last March. The malady is described as very infectious, and as having carried off a large number of animals.

SAYS the *Lancet:* "Another case of inflammation of the feet, caused by the wearing of socks with orange-red stripes, has occurred. The victim this time is Mr. Hart Dyke, the Conservative Whip. We presume the offending dye is coralline, which gained such notoriety a year or so ago. It is impossible to avoid asking whether the sale of such dangerous articles cannot be stopped. The color is attractive, and just now is fashionable; any one, however, who has respect for his 'poor feet' would certainly be wise to avoid it."

Toughened Glass.—A process for increasing the cohesive power of glass has been invented by a French engineer, François de la Bastie. This process consists in heating the glass to a certain temperature and plunging it while hot into a heated oleaginous compound. The time occupied in the actual process of tempering is merely nominal; for directly on being heated to the requisite degree, the articles are plunged into the bath and instantly withdrawn. The toughened glass cannot be cut by the diamond, and hence when it is used for windows it must be cut to the proper size before it is tempered. Articles of this toughened glass, such as watch-crystals, plates, dishes, and sheet-glass, were recently exhibited in London, and experiments made to show wherein this material differs from common glass. Water was boiled in a saucer over a fire, and the saucer quickly removed to a comparatively cold place; it was unaffected by the sudden change of temperature. One corner of a piece of glass was held by the hand in a gas flame until the corner became exceedingly hot, but the heat was not communicated to the other portion of the glass, nor was it cracked from unequal expansion.

The following experiment was then made to show how this toughened glass compared with common glass in power of resistance to fracture by the impact of a falling weight: The two pieces of glass to be tested were each about six inches square, and placed in frames, the weight being dropped upon the center. With the ordinary glass, a two-ounce brass weight, falling on it from a hight of twelve and eighteen inches respectively, did no damage, but at twenty-four inches the glass was broken into fragments. With a thinner piece of the toughened glass no impression was made by the same weight falling from hights ranging from two to ten feet, the weight simply rebounding from the glass. An eight-ounce iron weight, tried at two to four feet respectively, gave similar results. The hight being increased to six feet, the glass broke.—*Popular Science Monthly.*

Poison of Tobacco.—Science has sped another dart at the peace of the tobacco-smoker. It has heretofore been made known that nicotine, hydrogen-sulphide, and cyanogen exist in the smoke of tobacco; but now Dr. Krause, of Annaberg, declares that he has found in it carbonic oxide, a principle never before detected in the substance. The quantity of the oxide and of carbonic acid differs according to the kind of cigar used, the way of filling the pipe, etc. The manner in which the smoke is drawn, whether by strong or weak inhalations, also influences the products by affecting the combustion. From twelve experiments made by Dr. Krause, it appears that the quantity of carbonic oxide varied from 5.2 to 13.8 in 100 of smoke, the average being 9.3. As the consumer of the weed never gives out all the smoke, but takes a portion of it into his lungs, a certain amount of carbonic-oxide poisoning is inevitable. "The more awkward the smoker," says Dr. Krause, "the more rapidly will the action of the carbonic oxide make itself felt: hence the evil effects of early studies in smoking, the results of which are commonly ascribed to nicotine alone.

Items for the Month.

☞ Owing to the urgent press of other duties, and an unexpected call to visit New York city just as we were about going to press with this number, we have been under the necessity of delaying it somewhat beyond the usual date of publication.

☞ The Health Institute is flourishing in spite of the hard times. Scores are coming, getting their health and a great amount of valuable instruction, and going away to carry the good news of reform to their friends.

☞ The latest official report of the circulation of the various journals of the country shows that the HEALTH REFORMER has by far the largest circulation of any journal of the kind in the world. We attribute this unrivaled success to the fact that our constant aim is to make this periodical of practical value to every reader. The people are generally impartial judges, and seldom fail to bestow their patronage where it is the best deserved. As heretofore, we look to a generous public for support, and hope for still greater success.

☞ The new Reform Dress Patterns are selling rapidly. Every one who tries them is delighted with them. They are comfortable, elegant, and physiological. Those who have once worn them declare themselves quite unwilling to try to do without them for any consideration. They are evidently *just the thing*, and they supply a long-felt want. Here is a fine opportunity for ladies who profess a philanthropic spirit to do a good work for their sex. We want agents in every part of the United States to introduce these patterns. Who will enter upon the work?

The Health Reform Institute.

THE stockholders of the Health Reform Institute will hold their ninth annual meeting at Battle Creek, Mich., Friday, Aug 13, 1875, at 9 o'clock A. M., for the election of officers, and for the transaction of any other business that may come before the meeting.

Stockholders who cannot attend will please see that their stock is represented if they have not already made provision of this kind.

JAMES WHITE,
U. SMITH,
S. BROWNSBERGER,
HARMON LINDSAY,
BENN AUTEN,
E. B. GASKILL,
J. H. KELLOGG,
} *Directors.*

Hygienic Schools.

THE article in this number on this subject by Dr. Currie is very excellent and opportune. There is no greater want at the present time in the hygienic cause than the crying need of good hygienic schools where pupils may be instructed not only in the various branches of literature and science, but in the important subject of practical hygiene. It is also important that the principles of physiology should be duly observed in the modes of imparting instruction which are adopted. This can only be done in a school where the importance of hygienic truths is recognized and inculcated.

We are very happy to call attention to the fact that Dr. Currie has succeeded in making arrangements for a school where hygiene shall be taught and observed, as noticed in an advertisement on another page. We would also announce that there is already in successful operation a school of the kind described, in this city. It is known as the BATTLE CREEK COLLEGE. It holds a charter from the State, and is empowered to confer diplomas upon its graduates. The College building is an ornament to the city. It is capacious and elegant, and is provided with all modern conveniences. Although so recently organized, the list of students during the last College year numbered several hundreds.

The founders and stock-holders of the College, together with its patrons and its corps of professors are all hygienists; and parents can send their children here to receive instruction with the assurance that they will be placed under suitable influences while pursuing their studies, and that they will be subjected to a course of mental training and discipline in all respects greatly superior to that which is ordinarily afforded even in the better class of schools.

The College building and grounds are the pride of the western portion of the city. The building occupies so elevated a position that it is the most conspicuous object in the whole city. The grounds are being still further beautified, and will doubtless soon be unsurpassed by any in the city.

See advertisement on the third page of cover for further information respecting the school.

THE *Sanitary Journal*, published in Toronto, and edited by Dr. E. Playter, is a very excellent magazine, and deserves to be sustained by liberal patronage. Although it does not agree with us in all our views of the question of diet, it is doing a good work in instructing the people on many important questions pertaining to public health. It was first published as a semi-monthly, but has now become a monthly. We wish it success.