

The Health Reformer.

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

VOL. 9.

BATTLE CREEK, MICH., MAY, 1874.

NO. 5.

The Health Reformer.

JAMES WHITE : : : : EDITOR.

The Pacific Coast.

THESE are fidgety times. People are moving West and East, South and North, and many of them hardly know why they move. These are restless times. Some are feeble, and feel very sure that their health would improve in some other locality. Others, unfortunate souls, are dependent on the excitement of change for a poor kind of happiness. They become lonesome almost anywhere, and restless, and some other place in almost any direction looks better to them than the one they occupy. Hence, there are certain classes that are constantly moving, and continually being disappointed. There are hundreds and even thousands in the Pacific States and Territories, in Nebraska, Kansas, and Missouri, who would be very glad to get back to an eastern home could they sell out without serious losses.

And, while the foregoing is strictly true of certain classes, there are tens of thousands who did well in throwing themselves into the current of emigration that has been setting westward. These, especially in the Pacific States and Territories, are generally more healthy and happy than they could have been in the East. They take life easier. They do not wear themselves with hard labor, as the eastern people do. And if any of them get homesick, and long to mingle with the friends and associations of younger days, a visit during a cold eastern winter cures them, and they return again more than satisfied with their Pacific home.

Those who are restless in a good locality will not be happy in a better one. Such persons may as well remain where they are. Unless they can learn to be happy while enjoying the bounties of God's providential hand in almost any part of our good country, it would be better for them to annoy but one set of neighbors. "Health is happiness" is a truth often repeated. And it is quite as true that happiness is health.

Thousands become confirmed invalids annually from yielding to the spirit of restlessness, murmuring at Providence, complaining of their friends, and fretting at almost everything. One of the most healthful compounds a good man ever enjoyed is a clear conscience, a contented mind, a buoyant spirit, and good will to all his fellows around him. Fretting usually results from narrowness. The West is filled up with expanded Yankees, and good people from other States beyond the Plains, who learn to take broader and more liberal views in this country; hence, less fretting and better health.

Correct habits of life, with special efforts to obtain healthful food and pure water, and, by cleanliness of the premises, and proper ventilation, to secure pure air, will insure health almost anywhere. And there is no portion of the globe, however pure the atmosphere may be, and even the temperature, where persons may expect to improve health to any great extent with the common habits of living. One of the most wicked things practiced by drug physicians is to send their poor, suffering victims, nearly dead with drug diseases, to some distant State or country for the recovery of health. Having fleeced their pockets and poisoned their systems, they seem glad to get them off their hands in this way. Would God the people could be educated how to live so as to keep out of the hands of the doctors and not be exposed to the deceptions of overrated statements of the healthfulness of certain localities.

No one can form a correct idea of the healthfulness of the Pacific coast from a flying tour. Neither can persons form an opinion from their own feelings and general health from a sojourn on the Pacific for a few months. Changes affect persons differently; and it requires six months or a year for most persons to become so acclimated as to realize the benefits of life on the Pacific coast. Not a few come here for the improvement of health, and not feeling any better, but rather worse, mainly from not knowing how properly to take care of themselves, immediately return with unfavorable reports.

The subject of health on the Pacific coast should be viewed on altogether a broader scale than brief, individual experience. The close observer will not fail to see that the masses of the people of the Pacific coast, States, and Territories, show a better condition of health than those east of the Plains. This can be seen in the comparative clearness of the skin and of the eye, the plumpness of the form, the erect figure, and the elastic step, from Denver, at the base of the Rocky Mountains, to the waters of the Pacific. And what is still more noticeable is the remarkably healthy appearance of children and youth that have been born in this country. Our eastern city and village schools present a painful spectacle of feebleness and deformity in many, and a general want of the freshness and vigor of health in the majority, of pupils. We may not be stating the matter in too strong terms when we say that real pictures of health are in the minority, if not the exception, in the schools east of the Plains, while they are in the majority, if not the rule, in schools west of the Plains. These facts constitute evidence in favor of this country, health-wise, superior to almost any amount of personal experience of transient visitors.

The past winter has been the severest known in the State for more than twenty years. It has been very cold and rainy, with but little sunshine. The season is from one to two months behind common seasons. One year ago last winter was as unusually pleasant as the past winter has been unusually severe, directly the reverse of the last two winters in the States east of the Plains. So this good land is subject to extremes, the same as the rest of the world.

Those who come to California should spend at least six months in the State, and learn the great variety of climate in different localities, and the difference in the value of the soil, before locating. In San Francisco and some other points near the coast, it is more pleasant in winter, because of the trade winds of summer. And while at distant points from the coast it is excessively hot in summer, at other points near the coast the fogs and chill breezes are very severe on those disposed to lung and throat difficulties.

Colorado has short and beautiful summers, and long, disagreeable winters. You may expect a snow storm any time, from October to June. There are about four months of delight-

ful weather in Colorado, commencing with the first of June and usually terminating the first of October, during which, the tourist and the invalid can spend the time with pleasure and profit if they have plenty of money.

The sojourner and traveler will frequently meet the most educated and refined. At one time, there called on us at our temporary residence, a professor and his entire class, from the East. A sharper set of fellows we hardly ever met. They wished to know all about us and why we were there, during the first five minutes, but their principal burden, after the first avalanche of interrogations was over, was bread. When asked if they could eat graham bread, their reply was, "Anything." At another time, we met a small company of literary persons, who camped near us. The leading spirit was a Friend, and his square "thee" and "thy" were truly refreshing. On another occasion a train of baggage wagons and carriages passed our cottage, with twenty-nine New England editors, besides teamsters, artists, train master, and other attendants.

J. W.

Erroneous Appetites.—No. 2.

THEIR INFLUENCE ON MORAL CHARACTER.

GREAT sympathy exists between the physical and the moral nature. Physical habits have greatly to do with the general standard of virtue. Habits which create a morbid action of the bodily functions, have a tendency to produce a morbid state of moral feeling. Any habit which lowers the standard of healthy action in the human system tends to degrade the powers of the higher nature. Habitual stimulants and narcotics applied to the nervous system, not only drive the body into an early grave, but insidiously produce a torpid state of moral sense. The creation and indulgence of unnatural appetites disturb the balance which the Creator originally gave the organs of the brain. By their action on those portions of brain which relate to the animal propensities, they produce unwonted activity in them, by which their influences become disproportioned to those that relate to our moral nature.

Recklessness in bodily habits tends to recklessness in moral character. Those things which fret and derange the stomach tend to corrode the finer feelings of the heart. The stomach is an organ of vast controlling power. If this organ is right in its functions, generally all is

right that pertains to the health of the body. If it is wrong, then all is wrong. So, too, it has vastly to do with the right formation of moral character. Such is its strong sympathy with the brain and nerves, which form the bond of union between mind and body, that it bears a powerful sway over moral sentiment. Hence, erroneous eating and drinking inevitably conduce to erroneous thinking and acting. Licentiousness in food and drinks leads to licentiousness in matters of moral feeling. A licentious body begets a licentious mind.

Pampering false animal appetites, or pushing natural ones beyond their proper boundary, gives a balance of power to the animal propensities over the moral sentiments; and this process continued, tends to animalize the mind and degrade all the higher powers of the man. It is now he ceases to govern himself, and becomes a servile captive to the sway of his own groveling, sensual passions. Then all the attributes of the mind, like the Hungarian exiles under Austrian barbarity, become slaves to the despotism of animal lust.

Depraved physical appetites greatly obstruct moral culture in the rising generation. Unnatural luxuries and irregular eating and drinking, by depraving the mind and corrupting the heart, greatly retard moral and religious instruction bestowed on the young. The mother who would instill virtuous principles into the mind of her child must begin by establishing in that child right physical habits—right habits of eating and drinking. She must insist on a proper use of natural luxuries, and the utter refusal of unnatural ones. Every mother, therefore, who would secure the physical welfare, and through it the moral and eternal well-being of her children, should be herself a practical physiologist, that she may know what are, and what are not, correct physical habits. She should acquaint herself with the laws that govern physical life, and the nature of the popular sensual indulgences of the day, which war against physical and moral health.

It is a most lamentable fact, that scarcely one to a hundred of the mothers, having such tremendous responsibilities on them, has ever read the first word on practical physiology. The great mass of them are as ignorant of the proper physical training to be bestowed on children for their physical and moral soundness as are the herds and flocks on the hills. A vast amount of the crime of the age is chargeable to the ignorance and indifference on this

subject of the mothers of this generation. Even some of those who have read, do not appreciate its importance to themselves and others, and are not prepared to enforce its teachings on those under their charge, because their example is wanting. Oh! when will they wake up to this matter, and cease exposing themselves to a most fearful accountability?

If the mothers would have their sons become men with healthful bodies and hearts, they must guard them with special care against the gross and engrossing sensualities of the men of this age. They must guard them against the indulgence of every appetite that can injure the stomach and nervous system, especially against the use of stimulants and narcotics. Not only alcohol, but other stimulants, should be avoided. The coffees and the teas, especially the green teas, as well as that most deadly of all poisons in popular use, tobacco, should be rejected. These sensualities, and especially the tobacco lust, all have their bearings on moral character; and the earlier in life these habits begin, the more powerfully will they lower the standard of moral feeling.

Sabbath-school superintendents and teachers have a responsibility in this matter. Pupils with bad eating and drinking habits are less susceptible to Bible instruction. No one at the present day would think of receiving a boy into Sabbath-school who was a habitual user of strong drink. Every one feels that alcohol so encases the soul that it cannot comparatively be reached with religious instruction, nor even by the Spirit of God. There are other wrong habits which oppose themselves to divine instruction. If a pupil should offer himself for membership of a Sabbath-school class, whose breath and lips, though free from the debasing influences of strong drink, were, nevertheless, corrupted with the taint and defiled with the stain of tobacco, he should be received only on the condition that he will abandon the vile habit. The truths of God cannot be so readily instilled into his mind till his mouth is washed from the defilement of this great agent of Satan.

Meat-eating, especially in the excessive proportion of its present use, has also its moral bearings. By its stimulating properties, it acts on the animal organs of the brain, increasing the activity of the animal propensities. While it gives no additional strength and durability to the muscular system, but renders it more clumsy and torpid, it does give an undue degree of

ferocity to our animal propensities. It makes us more animal, and less intellectual and moral. This is a matter, not of opinion, but of well attested and generally acknowledged fact. This brings us up squarely to the question whether the indulgence of this less natural and not essential form of nutrition shall be considered worth more than all the moral considerations connected with it. It is a habit not to be put upon the same list with the poisonous drugs, opium, alcohol, and tobacco; but it is one that is doing its own work of injury to the tone of human sympathy and of moral feeling, especially in the excess to which it is pushed in the United States, and more particularly at the South.

The slaughtering of animals has a tendency, on those engaged in the business, to lower their estimate of life in general, and blunt the terror of shedding blood. If my life were to be put into the hands of jurors, where the decision of the case depended in any considerable degree upon their due apprehension of human sympathy and their right appreciation of human life, let me have any class of enlightened citizens to sit on that jury-bench rather than men from the slaughter-house.

The surgeon is not subject to influences of this sort. He takes his knife in hand, not with any feeling of wantonness toward his fellow-being; but, with a heart deeply stirred with human sympathy, he severs the morbid portion of the sufferer's flesh that he may save him from ultimate suffering and premature death. He deadens not the flame of fellow-feeling burning in his breast, but keeps it the more alive by its fresh and oft-repeated kindlings, as case after case comes to his hands for counsel and relief. Not so with the slaughter-man. With wanton hands and indifferent heart, he strikes the fatal blow upon the head of the helpless, unoffending fellow-being, fells him at his feet, and spills his blood upon the ground; and this, simply because he hankers for his flesh!

My heart was agonized, a few months since, at witnessing a scene of slaughter. The poor brute was pursued by men and dogs; the latter seizing him by the ears, and the former, without compunction, applying the head of the ax to his brain. The poor creature ran for life, and bellowed for help. His cries for aid and his struggles for escape seemed enough to wake up Heaven and earth to his sympathy; but men and dogs, with like carnivorous zeal, pursued

till blow after blow brought him to the ground, and the deadly stab was given to the current of life. My heart silently exclaimed, If ever the disposal of my life shall be thrown into the hands of men, let it not fall into the hands of those who butcher life! If ever that statute, requiring blood for blood, and life for life, shall cease to disgrace our civil institutions, we must not put butcher men in our legislative halls.

Furthermore, one bad physical habit prepares the way for another of a similar kind. Alcoholic drinks, by the morbid influences they produce on the mucous membranes and nerves of the mouth and stomach, create a demand for some other unnatural thing. Thus, alcohol prepares the way for tobacco, and tobacco for alcohol. Hence, as a general rule, these two articles have been found associated in the same mouth. They are twin sons of that demon who goeth about seeking whom he may devour. They are two great agents of him who is seeking to destroy both soul and body.

Bad physical habits lead also to bad moral habits. Bad physical and bad moral practices move in clusters, and abide together in families. Hence, it is found that the veriest vagabonds on the earth are literally saturated with the combined essences of alcohol and tobacco. The red nose, the filthy lips, and the Stygian breath, are the standing ensigns of their calling, and the undisguised badges of the association to which they belong. Nature has fixed her mark of condemnation upon them. She has branded them as culprits awaiting the final issues of their varied and associated crimes.

Liquor-drinking, tobacco-using, gambling, and profane swearing, form a common brotherhood of vices. Let this entire land be surveyed, and very rarely will there be found a profane oath proceeding from any other than an impure breath and from defiled lips. Rarely will a man be found insulting Jehovah to his face by profaning his name among those of uncontaminated lungs and unstained mouth. These and kindred habits may at any time be found in tippling and gambling recesses, mutually congratulating each other, "Hail fellows, well met!" They are unwilling to be apart; and will, probably, when once their acquaintance is established, continue their associated revelings till they shall be arrested and held to bail for the day of judgment. And such is the similarity of their tastes, and their tenacity for their social gratifications, that, if it were practicable,

they would wish to indulge their lusts together, even for a dark eternity. There can scarcely be a doubt, if it be possible, but that among those who will have lost their souls through the benumbing influences of strong drinks and narcotics, there will be wailings in hell after rum and tobacco.

Considering the inevitable brotherhood of different morbid appetites, if we would promote temperance in respect to alcoholic drinks, we must put away its twin—tobacco. Those who plead the cause of temperance with tobacco in their mouths, make themselves contemptible in the eyes of all who have any general light on the nature of kindred and associated appetites. While they profess to deny themselves of hurtful lusts, and are putting them away in one form, they are holding fast to them in another. They quit alcohol, and make up its loss by putting into the mouth a larger plug of tobacco. They deny themselves of the lesser and continue the stronger poison. They put away the less filthy sin, and supply its lustings with a more enslaving and brutish indulgence,—one whose power to create morbid results is greater than that of the worst kind of liquor, when taken with equal excess.

In this matter, temperance men manifest a degrading cowardice. Professing open warfare with a great physical and moral evil, they are still ardently embracing another evil that is doing a worse and more secret work of ruin to the physical, and also an extensive injury to the moral, welfare of the men of this generation. While they are turning the devil out at one door, they are inviting him in at another. They are wanting in the moral courage necessary to meet the foe in general combat at every avenue, determined to conquer or die. While the man signs the pledge and keeps tobacco in his mouth, he is scarcely half converted to the temperance principle. While he holds on to this accompaniment and substitute for alcohol, he is more liable than though he would abolish both, to return again to his cups.

If we would elevate the moral standard in any country or community, we must begin by correcting their physical habits. The people must put away from themselves and the rising generation the practice of unnatural eating and drinking, and other physical vices. Is there not a serious declension in the standard of virtue in our own favored America? And is not that declension still moving in its onward and down-

ward course? Look at the character of the young men of the day. Are they as uniformly attentive to their obligations to parental government, and to moral and religious principle in general, as were the young men through whose fidelity and moral courage our country was released from the British yoke, and made to shine forth in the glorious light of religious freedom? Can we look for such men as George Washington, Benjamin Franklin, and John Quincy Adams, to come forth from the ranks of the young men of our own day? If we would see such patriots ripening into public life, we must look for them among men whose early habits are like those of Washington, Franklin, and Adams.—*Philosophy of Health.*

Proper Diet for Man.—No. 4.

MENTAL AND MORAL EFFECTS.

THAT the use of animal food may affect the mental and moral faculties deleteriously is a fact which a thoughtful man will not deny, at least after a moment's reflection. There are at least three distinct reasons which render it thus injurious:—

1. As already shown, flesh food is stimulating, and, like every other stimulant, it impairs the nervous powers, and so injures the moral and mental faculties.

2. Numerous instances are recorded illustrative of the wonderful and mysterious effect which the mental faculties exert over the functions and tissues of the body. A fit of anger has been known to so change the lacteal secretions of a mother as to cause convulsions in an unweaned child. Great fear, the sudden reception of sad news, a protracted mental excitement, has been known to change a person's hair from raven black to snowy white in a single night. These illustrations show, 1. That mental emotions may induce sudden and characteristic changes in animal tissues; 2. That tissues thus affected may produce most injurious results when used as food by other animals. How these changes are brought about, we will not attempt to explain; nor is it necessary that we should do so, since we know the fact exists. Who can doubt, then, that the flesh of an animal which is killed when infuriated with rage may not transmit a certain degree of the same element to those who dine upon it? With this view, we can see much significance in the remark which Byron once made to a

friend whom he saw eating a piece of rarely-cooked meat. Said the great poet, "Are you not afraid you will commit a murder?" He himself declared that he "felt himself grow savage" whenever he partook largely of animal food.

3. Flesh-eating implies, necessarily, the slaying of animals, which bloody act ought to be sufficient argument against the practice. Look at the noble oxen as they daily perform their accustomed labor in implicit obedience to the will of their master. See them kindly bending their broad necks beneath the massive yoke as they willingly do for man what he is unable to do for himself, day after day, with unwearied patience, contributing to his comfort and convenience. Look into the great honest eyes of these noble animals. Can you not see benevolence and kindness beaming forth? and do not their expressive features, taken together with their every-day actions, betoken a degree, at least, of *intelligence*? Education and prejudice may lead you to recoil at the word, but is it not impossible to account for the many every-day manifestations of reason and education on the grounds of mere instinct? Can we refuse to admit the truth?

In claiming for the animal a certain amount of intelligence or reason, we do not in any way detract from man's glory or supremacy, but we merely elevate the beast to its proper sphere. But we will not discuss this question here; in fact, there is little necessity for it, for the ground taken is now quite generally admitted, and the time will probably soon come when it will be universally recognized as fact.

Again, notice the little lamb as it gambols on the lawn, joining the children in their sportive games, and manifesting every token of affectionate regard and interest for its youthful playmates. It can see, hear, feel, taste, and smell just as well as they. It is a living, sentient creature, possessed of the same means of enjoyment with which we are blessed. Now, is not the thought of staining our hands with the blood of such creatures a repulsive one? Does it not seem beastly to roughly seize them and deprive them of their happiness, their life, and then to devour them just as would a rapacious beast of prey, and all for the gratification of a perverted appetite? There can be no justification for such a course on the grounds of necessity, for the vegetable kingdom affords an almost endless variety of substances not only

more palatable, but more nutritious, besides being free from impurities. Inability to procure other nourishment is the only circumstance which can justify the use of flesh food.

Viewed in this light, the practice of flesh-eating cannot do otherwise than to harden the heart, destroy the finer sensibilities, excite the lower passions, and create a thirst for blood and a disregard for life, and all as the incidental effect of the necessity for the slaying of animals to supply the unnatural demand for animal food.

Pythagoras, the famous Grecian philosopher, and his followers, religiously abstained from the use of animal food, and considered it sacrilege to take the life of a single living creature.

The Essenes, a Jewish sect, who flourished about two thousand years ago, were equally scrupulous with reference to the slaying of animals and the eating of flesh. They were noted for their sobriety and exemplary piety.

The Brahmins of India have long held the same views, and adopted the same practice with reference to the use of animal food. And a new sect has recently sprung up among the natives of India who are strict vegetarians, and adopt the Christian religion, aiming to re-establish the apostolic faith.

But in addition to its indirect moral influence, it has a very important physiological effect in exciting the lower passions, and so leading men to the commission of crimes. In this respect it effects the system just as does alcohol or any other stimulant.

Basing their arguments upon the increased vital activity often found in flesh-eaters, many have claimed that animal food is necessary to produce intensity of mental action. Now, while it may be in a degree true that those who make free use of animal food sometimes exhibit greater violence of action than is usually seen among vegetarians, the quality of the results accomplished by such efforts must be considered; for this question is greatly modified by the fact that while animal food may produce intensity of action, it also deadens and renders obtuse the sensibilities.

Another fact must also be borne in mind, viz., that the greatest triumphs of genius, the most brilliant achievements of the human intellect, have not been the result of violent, spasmodic effort, but of continued, persevering, patient labor, slowly, but surely mastering one difficulty after another until the final glorious

results were reached. Thus it is seen that true mental power is not properly measured by the amount of force which can be exhibited under the excitement of a sudden impulse, but by the ability to endure severe and protracted mental labor.

The further evidences against the dietetic use of flesh which might be drawn from physiology are both numerous and conclusive, but we forbear to dwell longer upon this part of the subject. Sufficient testimony has been adduced, however, to show in the most conclusive manner that physiology is decidedly in favor of a purely vegetable diet for man. To be sure, there are the modifying effects of long-continued habit which in a measure affect the question, but these will be considered in their proper place.

EVIDENCES FROM EXPERIENCE.

Having seen that the unequivocal testimony of both anatomy and physiology is decidedly in favor of a vegetable diet, and as strongly opposed to the use of animal food, let us now notice if actual experience corroborates their testimony, and inculcates the same great truth; if we find this to be the case, we must consider it well established upon a firm, substantial basis of fact.

Without number have been the elaborately wrought and very plausible theories which have vanished into thin air, when subjected to this trying ordeal. Many times has the attempt been made to compel facts to conform to an arbitrary and unsound theory; but such an effort is preposterous, and never has resulted otherwise than disastrously. Facts are stubborn things; and must be squarely met. This is the manner in which we expect to deal with them, and here we find our great strength, for we require that our opponents shall do the same. We shall not attempt to give anything like an exhaustive treatise on this subject, but merely call attention to a few of the many facts which have a bearing upon it. But now for the facts.

THE ANTEDILUVIANS.

History, both profane and sacred, favors the idea that for many years after the creation man subsisted exclusively upon vegetable food, and by so doing attained to a remarkable age and wonderful physical development. This was in exact accordance with the divine command, "And thou shalt eat the herb of the field." And as we see with what facility the

South Sea Islanders, with the inhabitants of other tropical countries, supply all their alimentary wants from such sources as the plantain, bread tree, cocoa, date, yam, etc., all of which are found wild, growing without tillage, we can readily conceive that, in the early days of man's history, when the earth was sparsely populated and the soil yet in its virgin richness and fertility, an abundance of nutritious vegetable food could be obtained with scarcely any effort. After the flood, when the first permission to eat meat was granted, the race rapidly deteriorated both in physical development and in longevity. And if we admit the position held by some that meat was eaten *before* the flood, we have sufficient evidence of its evil effects in the state of the world immediately preceding that event. Never, before or since, has the world witnessed a period when anarchy, violence, iniquity, and crime, were so universally prevalent as then. So many times is this fact referred to in the Bible that no further evidence is necessary.

NATIONS OF ANTIQUITY.

Among the nations of antiquity, the records of whose brave and noble deeds adorn the pages of history, we find many evidences of the superior character of vegetable food as a diet for man. All are familiar with the heroic exploits of the noble Spartans, who seldom tasted meat, their food not only consisting of the simplest kind of vegetables, but also being very moderate in quantity. And while all will readily admit their superiority in a physical point of view, their mental superiority is no less apparent. How often do we hear reference made to the famous Spartan king, Lycurgus, as being a model legislator; and when was any nation ever more happy and prosperous than were the Spartans under his wise and auspicious reign?

Then there was the renowned philosopher and teacher, Pythagoras, who from religious scruples refrained from the use, as food, of anything which had ever possessed animal life. Although he held many erroneous views, in common with the rest of mankind at that time, the depth and force of his reasoning, and the accuracy of his conclusions, together with the astonishing sharpness of his perception, which enabled him to conceive and describe the scheme of the planetary system, which only modern science has been able to satisfactorily and clearly demonstrate, have seldom been equaled by

man. All of his followers, many of whom were illustrious characters, adhered strictly to the same regimen with himself.

Again, there were the Egyptians, at whose great metropolis gathered great men and master minds from all quarters of the then known world, to avail themselves of the special advantages there afforded them of acquiring a knowledge of the arts and sciences which at that time flourished there as nowhere else. Upon examination, we find that at this period of their history the Egyptians abstained almost entirely from the use of animals as food on account of their religion, being firm believers in the doctrine of metempsychosis or transmigration.

We may also mention the first Arcadians, whose subsistence was acorns, or as some allege, chestnuts. Likewise, the early Argives are represented as searching the woods in quest of their food, the wild pea. Hesiod, in lauding the golden age of the poets, which was that of acorn-eating, sang,

“The field, as yet untilled, the fruits afford,
And fill a sumptuous and unenvied board.”

Ovid thus describes the people of those remote ages :—

“Content with food which nature freely bred,
On wildings and on strawberries they fed ;
Cornels and bramble-berries gave the rest,
And falling acorns furnished out a feast.”

MODERN NATIONS.

But although ancient history abounds with this class of testimony, we will not dwell longer upon this branch of the subject, but will now come to consider the testimony of the world at the present time. As already observed, a large majority of the human race are obliged to subsist almost exclusively upon vegetable food ; yet when we compare the condition of such nations with those who make large use of flesh food, both mentally and physically, we can come to none but a favorable conclusion in regard to a vegetable diet, at least when we take into consideration the effects of climatic and social influences.

Prof. Lawrence, although himself a meat-eater, makes the frank admission that the Lappers, Esquimaux, Tartars, Kamtschatdales, and several other nations of similar dietetic habits, although living almost entirely upon flesh, are the smallest, weakest, and most cowardly people upon the globe. On the other hand, we find that, as a general rule quite free from exceptions, the most hardy, long-lived, robust, well-developed nations, both physically

and mentally, are those whose diet is almost entirely, if not exclusively, vegetable. We have abundant evidence of this, even in our own country. The men who construct our extensive railways, who dig our immense canals, who bridge our rivers and tunnel our mountains, are almost entirely of foreign birth. The hardy Irish peasant, who comes to this country after having been reared upon a diet almost wholly made up of oat-meal and potatoes, far out-rivals the flesh-eating American in physical endurance and muscular power. And in point of mental activity, the Irish are proverbial for their ready and characteristic wit. The same is true of the Irish girls who come to this country and engage in domestic service. Their readiness and activity are really surprising. But it is a very significant as well as patent fact that after having spent a few years in this country and becoming accustomed to the diet in common use, this difference rapidly disappears, so that in the second or third generations little vestige of former superiority remains. The same might be said of other nations as well, as the Germans, Danes, etc., and would be true of them, as also of the Irish in a much more marked degree, were it not for the baneful influence of their great addiction to the use of alcoholic beverages.

But as it may be claimed that in the instances cited the manifest difference may be due to natural disadvantages of climate or some similar causes, we will compare nations to which this objection cannot be raised. Take, for instance, the natives of New Zealand and those of Australia. Neither of these people, when discovered, possessed any domestic animals. The New Zealanders derived a considerable portion of their aliment from various vegetable productions, while the Australians subsisted almost entirely upon animal food, a large portion being procured from the sea. According to the accounts of reliable travelers, the difference between these two races is very great. The former are well-developed, and seem calculated to endure fatigue and hardship. Many of them are really handsome, and excellent models of symmetry. The Australians present quite a different aspect. They are ill-proportioned, with small, thin, dwarfish limbs. One eminent writer says of them that they are “the most miserable of men,” while another in speaking of them remarks, “They are undoubtedly the lowest created beings that wear the form of humanity and claim the name of man.”

A similar comparison might be drawn between the Calmucks and the Circassians. Dr. Clarke says, in describing the first-mentioned, "Nothing is more hideous than a Calmuck." Their form and features are exceedingly uncouth, and, in the words of the same writer, "so horrible and coarse is the appearance of the women that it is difficult to distinguish sex." The Circassians, on the other hand, have long been celebrated for their great superiority in point of beauty and symmetry. Their women are said to be the most handsome of any nation, and are remarkable for the delicacy and fineness of their features. Says Dr. Lamb, a noted English physician and writer, "Few will hesitate to pronounce that the ugliness of the Calmucks is the natural consequence of their diet." It consists almost wholly of flesh, horses being to them what the reindeer is to the Laplander—his slave during life and food after death. With the Circassians, however, the opposite is the case. They engage largely in agriculture, cultivating barley, millet, and various vegetables. The national dish is millet porridge.

Here we have given two fair illustrations which ought to settle the question if no further evidence could be advanced; but this is hardly a beginning of the testimony. A large volume would be required to do the matter anything like justice. In addition to these evidences of a national character, we have the testimony of thousands of individuals in this country and England who have, during the last twenty-five or thirty years, adopted the vegetarian system. When the change has been properly conducted, it has invariably resulted in salutary effects.

In justice, the writer should here state that, although every direct quotation has received proper credit, he is in a measure indebted for several of the above illustrations to the excellent writings of Dr. Graham, Dr. John Bell, and Dr. Lamb.

J. H. KELLOGG, M. D.

The Temperance Movement.

THE "Women's Crusade" is still in active progress, and has now extended to almost all of the Eastern, as well as the Western, States, and is even beginning to manifest itself in the distant Territories. It doubtless far surpasses anything of the kind the world has ever before witnessed. New York is all astir with temperance conventions and prayer-meetings. The

spirit of the movement seems to be contagious. In fact, in more than one respect it bears unmistakable resemblance to an epidemic; and, although we give the present effort our best wishes, we are compelled to believe that its duration will be quite brief. In truth, its enthusiasm already begins to wane. We no longer hear so much about the prayers of ladies in the streets and filthy bar-rooms. The policy adopted at present seems to be to institute legal proceedings against all liquor dealers who do not willingly and promptly yield to persuasion.

Great good is seldom accomplished by impulsive, spasmodic action. Fanatical, violent religious excitements are almost invariably followed by a "fall from grace" on the part of many of the participants on account of the reaction which naturally follows an unnatural excitement of any kind. We fear that a similar reaction will follow in the wake of the present excited attack upon intemperance. The stronghold of drunkenness, surrounded by its massive walls of wealth, and defended by determined hordes of distillers, liquor dealers, drunkards, gamblers, and, worst of all, moderate drinkers, is not to be demolished by impetuous sallies. Its foundations must be undermined; its supplies must be cut off. And how shall this be done? by enacting laws prohibiting the sale of liquor? by closing the saloons, bar-rooms, restaurants, and other places where whisky is publicly vended? by persuading men to sign the pledge? We dare not answer, Yes; for, if these means had been effectual, we must have seen more tangible results from their employment during the last sixty years since the temperance reform was first inaugurated. We have laws against theft and murder; but are not our prisons filled with thieves and murderers? and does not every person know that only a small proportion of the violators of the laws are ever punished?

The only remedy for drunkenness, with all its attendant vices and misfortunes, is, *Cure of the appetite for artificial stimulus*. The simple drinking of alcohol does not constitute the great crime of the inebriate; it is the gratification of his desire for unnatural stimulation. The agent employed may be alcohol, opium, hasheesh, tobacco, tea, coffee, or chocolate; the principle is the same. There are tobacco, tea, and coffee drunkards, as well as whisky-topers and opium eaters. The reason why so few reformed drunkards adhere to sobriety for

any great length of time, even when they sign the pledge, is that they constantly fan the flame of appetite for stimulation by the use of tobacco, strong tea or coffee, highly seasoned viands, and pungent condiments.

“Health reform is the basis of all reform;” and this is particularly true with reference to the temperance reform. Those of our friends who feel an interest in the present wonderful movement, as all true reformers must feel, can do the cause and their fellow-men good service by calling the attention of the world to these simple and self-evident facts. The present is a good time to let our light shine. Being the most radical of temperance reformers, we can scarcely do otherwise than sympathize with our enthusiastic friends who are so earnestly engaged in endeavoring to eradicate the upas tree of drunkenness from our noble country. Although we cannot hope for any permanent success, the prompting motive of the movement is to oppose crime and encourage sobriety and virtue, and it consequently deserves our moral support.

J. H. K.

Hygiene of the Hair.

PROBABLY no one portion of the person receives so much attention as the hair. If not generally true of gentlemen, this statement will scarcely be questioned with regard to the ladies. And yet, in spite of this partiality, how often are we, through the medium of our olfactories, made unpleasantly conscious of the fact that curls, and braids, and ribbons, and combs, and pomades, and perfumed oils, cannot conceal the pungent, fetid, nauseating odor which always emanates from the decaying, decomposing, souring accumulations of an unwashed head of hair. Who has not been frequently forced to the unwelcome but unavoidable conclusion that beneath the most fair and beautiful tresses was hidden a dirty scalp?

It is not a rare occurrence for a person to wonder why he is so studiously avoided by those to whom he is unconscious of having given any cause of offense, or why his companion so frequently turns aside his head, when the only reason in the world why he is thus curiously shunned is the same instinct which leads people to shun the company of a certain small quadruped with which the king of beasts is said to have carefully avoided a personal combat, though boldly challenged to fight.

We are sorry to say that this misfortune (if we may be so charitable as to call it such) is not confined to people of generally untidy habits, but is frequently the one blemish which in spite of our utmost attempts at apology and extenuation sometimes overshadows a multitude of graces. In truth, it sometimes happens that a person who is possessed of many rare personal attractions becomes—we almost said, and, in fact will say—an unmitigated nuisance simply by neglecting the fact that organic matter is very prone to decomposition, and that when putrefaction has once fairly begun, it becomes the embodiment of every foul and noxious smell imaginable.

But why is it that the head is liable to become such an offensive organ? Everybody knows that a process of depuration known as insensible perspiration is being constantly carried on by the skin. The watery portion of the perspiration is carried off by evaporation, and there is left upon the surface the effete organic matters previously held in solution in the excretion. Unless this is frequently removed, we know how quickly the skin will become very foul and offensive. Now, this same process is carried on with great activity by the scalp, beneath the hair; and unless the same frequent purification is resorted to, the same disagreeable result will be produced. It is even more liable to be produced upon the head than elsewhere on account of being so closely confined by the hair. Especially is this true in the summer when perspiration is usually much more profuse than in the winter.

We have already spoken of the importance of attending to cleanliness of the hair when considered from what we may term the social standpoint, or as required by the rules of common politeness and decency. But there is a more imperative reason even than this which demands that no offensive excreta shall be allowed to accumulate in contact with, or even proximity to, the body; it is the fact that the health is liable to become seriously affected. The scalp will become diseased in various ways. Baldness is a very common result of inattention to proper cleansing of the hair and scalp. The premature appearance of gray hair is another common result of the same cause. Multitudes of headaches require no other explanation, and are promptly relieved by the application of the proper remedy.

Now for the remedy. No expensive toilet preparation is necessary; all that is required is simply soap and water. Select very fine, soft, toilet soap, and pure soft water, and give the hair a good shampooing—how often? twice a year? once a month? How slovenly! What would you think of yourself if you bathed as infrequently as that? and does not your head need bathing as frequently as any other portion of your body? Certainly. Once a week, at least, the hair should be thoroughly cleansed; and in the summer time, cleanliness may require a daily head-washing just as much as face-washing.

Do not flatter yourself that no one will notice the filthy condition of your head even though you may yourself be able to detect a slight odor. Will not others be as likely to detect it as yourself when the acuteness of your smell has been destroyed by becoming gradually accustomed to the fetid odor? Neither will you be entirely safe in trusting wholly to your own nasal organ; for it may be impaired by disease, or may not be as acute as your neighbor's. Have a stated time for taking a thorough head-bath, and be sure to obtain it at the appointed time. J. H. K.

Revival of Insect Medication.

A VERY good evidence of the inefficiency of the remedies usually employed by the medical profession is found in the fact that the doctors are continually on the alert for the discovery of some new weed or poison with which to reinforce their *materia medica*, thus evidently acknowledging their dissatisfaction with their present list of medicines. Occasionally we find them recurring back to old and absurd practices long since discarded. Just at the present time, according to a writer in a recent medical journal, the tendency is toward the revival of insect medication, which was quite in vogue many years ago, and has long been practiced by Chinese physicians. Possibly a market may soon be found for that intolerable pest, the potato bug, so that the farmer will find them a more profitable crop even than the succulent tuber itself. In describing the use of these insectile remedies the writer says:—

“They were generally given in the form of pills. Five gnats were equal to three grains of

calomel; a lady-bug was a sovereign remedy for colic and plague; ants were considered to be invaluable against measles, and a cockchafer for hydrophobia and for the leprosy; and other bugs were used, with similar assurance, for various disorders.” K.

CAUGHT A TARTAR.—A curious incident occurred in Toledo a few days ago which, although of somewhat questionable morality, reveals, in a striking manner, certain of the inconsistencies of fashionable dress. We have the incident direct from one of the parties engaged in the affair, and put it in print for the first time.

A gentleman of considerable ability, affable manners, and in affluent circumstances, but, unfortunately, an agent for the sale of wines and liquors, was stopping at a hotel in Toledo, when he was called upon at his room by a deputation of ladies who had by some means learned his business. He received them courteously, and after listening attentively to their appeals in behalf of temperance, he cautiously and craftily broached the subject of female extravagance in dress. He had before him the most perfect illustrations of his subject, and gradually waxed eloquent upon his theme, much to the annoyance and chagrin of the ladies, who had no thought of being thus pointedly reminded of their own short-comings. But as a climax to the discomfiture of his fair persecutors, the rumseller at last declared himself so overwhelmed with the importance of the subject upon which he had been dilating, that he must pray; whereupon he dropped upon his knees and in the most vigorous manner set forth the sins and follies of modern fashionable dress, which are undoubtedly doing as much as any one cause to destroy the health of American women, and to cripple and devitalize the coming generation. Of course the ladies were much exasperated, and they would have caused the incorrigible man's arrest had bystanders not testified that his conduct had been free from anything like vulgarity or abuse. K.

INNOCENCE is not virtue, and those who fancy that it is, make a fatal mistake. Innocence is simply ignorance of evil; virtue knows it, appreciates it, rejects it. Infancy is lovely in its innocence; but life, with its stern realities, demands the strong, ripened vigor of manly virtue to resist its evils, to protect its good, to build up character, and to bless the world.—*Sel.*

GENERAL ARTICLES.

WHAT IS THE USE OF FRETTING?

WHAT is the use of fretting,
 And wearing our life away
 With the little trials and crosses
 That meet us every day?
 They will only make us stronger
 If we use them to our good;
 They are surely blessings to us,
 But how little understood!

What is the use of fretting
 When, through this bustling world,
 In a sort of wild confusion,
 We seem ever to be hurled,
 While others are gently carried,
 And feel not the grief and pain;
 And their white hands have no labor,
 And are free from the slightest stain!

What is the use, I wonder?
 Will it bring our lost time back,
 And set our feet so erring
 In a purer, better track?
 And will it cause the sinning
 Of this bustling world to cease,
 And carry us still more gently
 In the way of perfect peace?

Will it make us happier, better,
 And nearer our loving God,
 To fret and repine and murmur
 At the hand who holds the rod?
 Will it bring to us more of sunshine
 If we weep when the clouds are low?
 If we raise our hands when wailing,
 Will it ward from our hearts the blow?
 —Sel.

I'm not going to Make a Martyr
of Myself.

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

I WAS sitting in the parlor of a hygienic Institution, after dinner, when a young Frenchman came and took a seat beside me. He had listened, the day before, to an address which I delivered to the patients. He seemed anxious to learn something more about what appeared to him a very new and strange manner of living—the hygienic system. Being always glad to help those who are seeking information, I freely answered his questions in regard to my views. In the course of our conversation, he said: "Do you think these doctors here can do what they claim can be done by their method of treatment?" I answered, "I do not doubt it *in the least*." "Do you believe," he continued, "in this system of diet?" I said, "Certainly I do." Then he inquired, "Do you think that it will ever become common among the upper classes of society?" This last question was the climax of his interrogations. I now saw through the whole drift of his questions, comprehended the whole

bent of his mind, understood precisely his relation to all the moral questions which are discussed among mankind. In my heart, I pitied him. All his thoughts, hopes, aspirations, were "of the earth, earthy." His whole philosophy of life was built upon the old heathen maxim, "Let us eat and drink, for to-morrow we die." The whole value of the hygienic system of cure, in his eyes, consisted in its power of restoring to a man the pleasures of the palate which he may happen to have lost through his intemperate excesses.

I thought for a moment of the question he had asked, and then, turning to him, said, "During *my* lifetime, I do not expect that *very many* of the fashionable people of the world will adopt this plan of living. *Some* will; but the greater part will, probably, continue on in their own way. The cause in which we are engaged very much resembles that of the first teachers of the Christian religion, one of whom was constrained to write to his followers, "For ye see your calling, brethren, how that not many wise men, after the flesh, not many mighty, not many noble are called."

My remarks did not seem to make the slightest impression on this man, unless, perhaps, they helped him to come to a conclusion toward which he had before been laboring in his mind. He turned to me, and said, "The doctors say that if I remain here about six months, I can recover my health. You think that they can do what they claim. I shall stay here and see. When I get well, I will go home again, but I cannot live just as people do here. I will have my dinner at six o'clock. I do not like this way of living. I want to have things nice. When my friends come to see me, I must have such things as they have. I don't like to be odd. I have but *one* life to live, and I want to enjoy that. I do not want to make a martyr of *myself*." I said nothing, but thought of something I had learned many years before; "Cast not your pearls before swine, lest they trample them under their feet, and turn again and rend you."

Again and again, since the time of that conversation, have I thought of that man's maxim of life—"I do not want to make a martyr of myself." This short sentence tells the whole story in regard to the slow progress of the hygienic reform. It demands self-sacrifice. It calls upon people to renounce "the pomps and vanities of the world," to give up the dearest idols of their hearts. It calls for the subduing of passions which have been long indulged, the regulation of appetites which, through years of gratification, have become thoroughly diseased, and the crucifixion of all the abnormal propensities of the physical man. These right hands must be cut off, and these right eyes plucked out.

Thousands of sick people run to the water-cures for treatment. They go *there* as their

last hope. They go there after every other method of treatment has failed. A large proportion of them are cured. With health renewed, they enter again upon their usual employments and avocations. What becomes of them afterward? Are they found, throughout the country, living by these new principles, advocating them, defending them, waging an uncompromising war against those passions, appetites, and habits, which bind men in an iron bondage and transform them into slaves?

Alas! some embrace these principles heartily, and become true missionaries of right living; but we fear that this much cannot be said of the largest number of those who return from these hygienic institutions rejoicing in their restoration to health. The superintendent of one of these acknowledged to me that, in his opinion, nine out of ten of those who were under his care, from time to time, abandoned the whole system after a few years. This forcibly reminded me of those words about the ten lepers: "Were there not *ten* cleansed, but where are the nine?"

It seems to me that this view of the case must give small hope to those who expect to reform the world by scientific teaching. We do not undervalue this. Man's intellect needs to be enlightened, but something more is necessary before we can induce people to renounce tastes and habits of life which seem ingrained into the very texture of their being. Man's moral nature needs to be moved, and his religious faculties called in to the support of his intellectual convictions, before we can expect a permanent change in his manner of living; and, much more, before we can expect him to sacrifice his own interests in helping to carry forward this great cause. This explains the reason why we have so few helpers among those who have once recognized the value of this method of living. They became sick. Life was stripped of all its enjoyments. They went to the Cure to get well. They went away rejoicing that they could once more enjoy the pleasures of the world.

We have hopes that these principles will be advocated as long as the world stands, and that multitudes, embracing them, will rise into a higher and nobler life. But this cause, as I said before, calls for self-sacrifice. We must be willing to deny ourselves, to take up our cross and recognize Him who was crucified as our Master. Then we shall triumph. We must be willing to suffer, if need be, in doing these simple duties which devolve upon us. The hygienic system of living is simply a life in conformity with God's physical laws. Sickness comes through disobedience to these laws. The sick man, then, ought to become penitent for his transgression, and when he learns what these laws are which he has broken, he should resolve that, by God's help, he will break them

no more. Then, when he is cured, he will go away rejoicing that he has learned something of God's truth, submitting himself humbly to the chastening hand of God, and determining from henceforth to walk in the light of this truth.

More Comfort for Pork-Eaters.

SEVERAL deaths from trichinæ have lately occurred in Indiana, greatly to the injury of the pork market in that locality, as people who cannot be moved by reason may yet be frightened by the appearance of such a horrible death before their eyes. It is strange that the report of these things does not cause a general cessation of the use of pork; many seemed determined to brave the danger, and risk their lives to gratify perverted appetites. But the trichinæ have, unquestionably, done a good work for the health reform. Many people, even in the pork-raising States, are losing their interest in that business. A few years ago a person could not refuse pork at the table without incurring censure, and subjecting himself to uncourteous remarks. Now there are so many who refuse it, and the reason, and even the necessity, of the refusal are becoming so well known, that it does not appear singular.

In the "Kaskaskia Bottom," in Illinois, it is reported that from 10,000 to 15,000 hogs have died within the last nine months. Examination shows that trichinæ are the cause. The hogs are literally eaten up with them. But the papers kindly assure their readers that there is no danger if the pork is thoroughly cooked, that is, if the trichina are subjected to a high temperature! It must be pleasing to know that the flesh of a diseased hog may be so cooked that it may be eaten without producing immediate death! If such are the habits of civilized and refined people, what must savages be? Thousands of hogs are dying of a terrible and loathsome disease; and thousands are killed and put into the market without examination. Surely, it is no wonder that deaths from unknown causes are constantly occurring. No wonder that diseases so often baffle the skill of physicians. There is no known remedy for a person affected with trichinæ.

A new source of consolation has been found for trichinæ-eaters. The papers assure us that no person is affected with them a second time! This must be hopeful. It reminds me of the assurance given to a correspondent by the *N. Y. Tribune* some years ago, that he would not be struck by lightning a second time on the same day. Equally consoling it would be to a person who had taken a fatal dose of strychnine, to be informed that a second dose would not injure him!

The world is supposed to have made great advancements in "medical science" for years

past, but diseases are increasing, and "remedies" are multiplying. As long as people will be deluded with quack nostrums advertised with the assurance that "no change of diet is required," so long must they suffer with violent diseases. The money spent for patent medicines and poisonous drugs would soon pay our national debt.

Both the word and the providence of God have always been against the use of swine's flesh as food. Scrofula, now almost all-prevailing, originates in its use, and is perpetuated by it. God made a wise provision for man's wants whereby he might build up a sound and healthy frame; but he has turned away from the simplicity of God's arrangement and has cultivated an appetite for the most gross and even filthy food, until the human frame has become a body of corruption. Instead of counting it a hardship to return to God's own order and arrangement, we should be thankful for the light which is given to guide us to better ways of living, and to higher enjoyment in body and mind.

J. H. W.

Adulterated Sirups.

SEVERAL months since, we published an article upon this subject, in which was the following paragraph:—

"It has long been known to chemists that a variety of sugar could be manufactured from common starch, sawdust, cotton, or woody fiber of any kind, by treating it with sulphuric acid. The sugar thus produced is called grape sugar, and two and a half pounds are required to equal one of the cane sugar in sweetness. For some years, this kind of sugar has been used in the manufacture of candy and of alcoholic liquors. It is also manufactured in Germany for commercial purposes, and more recently a number of manufactories have been established in this country for the purpose of imitating and adulterating the various forms of cane sugar. Several such establishments are located in New York and New Orleans, and one in Madison, Indiana. The greatest fraud seems to be in the article known as Golden Drip Sirup. This sirup is very superior in appearance, but often contains not the slightest trace of cane sugar, being made entirely from sawdust, paper rags, starch, and other similar trash, treated with sulphuric acid. This sirup can always be distinguished from the genuine by its reaction with an infusion of tannin. As tea leaves contain a large amount of tannin, a very convenient test is to put a small quantity of it into strong tea. If this sirup is of the kind described, the liquid will become black upon being stirred."

After going the rounds of the papers, the foregoing has come back to us in the "*Sugar-*

Bowl," one of our exchanges published in Louisiana, which copied the paragraph from the *American Grocer*. The editor of the latter journal, in commenting upon the paragraph, expressed some doubts in reference to the reliability of the test recommended. As one or two patrons of the REFORMER have asked for information on the same point, we will give a little fuller explanation of it.

Nearly all are familiar with the fact that very good ink can be made by dissolving iron nails in sulphuric acid, or oil of vitriol, and mixing the solution with a decoction of oak bark. The oak bark is used only on account of the tannin, or tannic acid which it contains, and hence better ink can be made from nutgalls, logwood, or any other form of more nearly pure tannin. The ink is not formed by the union of the tannin with the sulphuric acid, but by the union of the tannic acid with the iron dissolved in the sulphuric acid. Almost all inks are formed in this way.

But how does this enlighten us in regard to the tea test for spurious "Golden Drip"? In this way: When sirup is made from cotton rags, sawdust, refuse starch, etc., sulphuric acid is always necessarily employed in considerable quantities. During the process, the whole mass of rags, starch, sulphuric acid, and water, is boiled for hours in an iron vessel. As an unavoidable result, the ever-active sulphuric acid attacks the iron vessel and dissolves a considerable portion of iron. This remains in the sirup in the form of copperas or sulphate of iron, in solution. An infusion of tea contains a considerable quantity of tannin. Consequently, when we place a little of this adulterated sirup into a cup of tea, ink is produced, just as it would be by the union of tannic acid and iron under any other circumstances. This accounts for the black color which a cup of tea assumes so quickly when spurious sirup or sugar is mingled with it. But, says one, is it not possible that the iron may be present without the sulphuric acid, in the form of rust from the evaporating pans? There is a bare possibility that such might be the case; but the probability is very small. At least, it is scarcely supposable that there could be enough metallic iron in solution to produce with tannic acid a fluid so nearly like black ink in its color as to answer very well for writing fluid. Iron is insoluble in water, and metallic particles would settle to the bottom of the containing vessel if by chance any should be introduced into the sirup.

Sugar manufacturers, and those interested in the sale of sugar in its various forms, are peculiarly interested in this question, and they would gladly make the people believe that any test to which they can themselves subject this bogus sirup is wholly unreliable; and also that if adulterations do exist, they are of such rare occurrence that little attention need be paid to

the subject. The truth in the matter is that there is hardly a possibility of there being present in sirup a large quantity of iron without there is also present either sulphuric or some other equally injurious acid.

We have claimed, and still hold to the statement, that when a cup of tea is found to assume a decidedly black appearance upon the addition of a teaspoonful of sirup or sugar, the best of *prima facie* evidence is obtained of the injurious character of the article from the presence of sulphuric acid. There are other tests which, though more scientifically accurate, are of less practical value.

We are glad to see that some of the first journals in the country are waking up to this subject, and hope that popular sentiment will soon be elevated to a condition that will require the enactment of laws to prevent the wholesale poisoning of the American people by the terrible adulterations which are now becoming so common as to have assumed the importance of great industries. Such laws are already in force in England, and their rigid enforcement there has doubtless had a decided influence in increasing the quantity of villainous compounds in this country.

Some time since, we heard of a man in Indiana who engaged in the manufacture of this counterfeit sugar with the expectation of being able to dispose of it to distillers for the production of whisky. Failing in this, he branded it "Golden Drip," and temperance people have the pleasure of eating that which was even too bad to make good (!) whisky.

The following extracts are from an editorial article in the *Chicago Tribune*, entitled, "Death in the Pot":—

"A few weeks ago the *American Grocer* called attention to the fact that certain parties are selling what purports to be sugar sirup, but is really an artificial product, obtained by the chemical action of sulphuric acid (oil of vitriol) upon one of several substances which consist principally of the essential material of wood fiber. There are reasons for believing that the manufacture and sale and consumption of this vile substitute for the genuine article is more general than would be believed by any one who had not personally investigated the matter. It is probable that nearly 50 per cent of the material which, under the alluring names of Golden Sirup, Silver Drips, etc., enters largely into consumption at the breakfast table, especially in winter, is an artificial product of the chemist's skill and contains rank poison. The writer has recently tested some samples of "very fine" sirup, served out to families, and found them to contain the oil of vitriol in dangerous quantities."

"The stuff is so perilous to human health that those who manufacture it, and those who knowingly vend it, ought to be sent to the pen-

itentiary for life as conspirators against the bodily welfare of society. And the evil is so great that no one should dare to take the risk of selling this sirup. Fortunately, it is easy to bring it to the test. A small quantity of the muriate or nitrate of baryta mixed with water, makes a clear solution. If to this be added a small quantity of sulphuric acid, a white precipitate is formed, which is insoluble in water. Tannin also gives a black precipitate; unless, perhaps, if the acid have been neutralized by albumen. If the sirup will stand these tests, it may be sold and eaten with safety. If not, it should be thrown away, and its venders prosecuted as modern Borgias."

The *Journal of Commerce* informs us that considerable excitement recently prevailed among the New York grocers on account of the report that certain "sugar refiners were manufacturing a sirup very handsome in appearance, but containing a very large proportion of lead introduced to clarify it." The refiners were visited, but although they all admitted that bi-acetate of lead was an excellent article for the purpose of clarifying sirup, they denied that they employed it.

In reply to this the *American Grocer* remarks, "It is, however, a notorious fact that the sophistication of sirups is carried on *somewhere* very extensively, and that many such sirups find a market in New York. Our refiners, therefore, owe it to their own high character and standing not simply to disavow any connection with such disreputable practices, but to institute inquiries and publish the results in such manner as will effectually disabuse the public mind upon the subject." J. H. K.

True Medication.

BY J. A. TENNEY, M. D.

DISRAELI, the English premier, has said, "We are coming to have less confidence in systems, and more in men." This is beginning to be true, but it is only a beginning. Millions of the American people to-day have more confidence in a system of poisoning than they have in the powers of nature. If they eat impure food, or if they are so irregular in their habits that their digestive powers cannot make good blood, there comes a time when the morbid matter it contains cannot be longer tolerated; and consequently the system makes a violent self-preservative effort to free itself of the impurities. If these are expelled by the kidneys, forming a urinary sediment, or if eliminated by the skin, giving a feverish odor, it is encouraging to the student of nature, for he knows the time is not far distant when the purification will be accomplished, and then he may be said to be born again, physically, with opportunities

similar to those he enjoyed before transgression.

So if the action of the system is not too violent, the true physician leaves nature to her own course; because to him, she is worthy of all confidence.

But the man of science (?) sees it from a far different standpoint. To him nature is guilty of the grossest stupidity, and so needs castigation; so he gives poisons, "to give nature a jog." If the kidneys deposit a urinary sediment, showing that they are doing the duty of the skin as well as their own, this *man of science* prescribes a class of "medicines" called diuretics; which being expelled by the kidneys, principally, of course increase their action. After these are expelled, the kidneys are so far overworked that they must rest for a time. Then the urine becomes light-colored, and so far the patient is cured! But the blood contains the impurities which caused the disturbance, after all this tinkering.

The true way would be to let the patient alone if he is only moderately sick. But if the action of the system is very violent, the temperature of the skin should be brought down to its normal standard by means of cooling baths, thus enabling it to perform its duty, and relieving the kidneys from their extra labor.

Nature should always be placed supreme, and treatment should always be made conformatory, instead of the common practice of placing conjured-up nonsense in the fore-ground, and nature nowhere.

Make the Best of Things.

I THINK a few words under this head may be of great service to a certain class of health reformers. The principles of health reform are sacred, and should be carefully and conscientiously regarded. It is in the power of most persons to do this, at least in many important particulars. No person need be a user of tobacco, or tea, or coffee. No one need be an excessive eater, and none need to eat between meals. Few persons are so situated that they must of necessity eat even a little spice, or use even for once hot raised bread for their food, or that cannot in their own dwellings have suitable ventilation and a plentiful supply of pure air. Certainly I would have all persons walk circumspectly in all their habits of life, and strictly govern themselves by the principles of Christian temperance.

But there is a class of feeble persons who are seeking to regard the principles of health reform in everything, small and great, who really need a few words of good counsel. They are apt to make things of minor importance, which are sometimes beyond their power to control, matters of great consequence; and because some of these things are not to their

minds, they suffer great inconvenience, and sustain real injury. Now this is, at least in part, in the power of their will to help if they but realized it. They cannot always change the things that trouble them, but they can in such cases prevent being troubled to any great extent if they only think so.

When we travel on the cars we cannot always have such ventilation as we wish. If we find this to be out of our power, let us determine not to make the matter worse by fretting. If others can live in bad air all the time, let us with fortitude endure it for a few hours, and learn to prize pure air when we get it again. It is folly for persons to worry themselves sick in such a place. Make the best of what you cannot help, and you will come out far better than will those who set it down in their minds that they have sustained a great injury.

Without doubt, regularity in the hours at which our meals are taken is an excellent thing. But sometimes we cannot be strictly regular as to this. We may not reach our destination so soon as we anticipated by several hours, or when we arrive we may not find our friends prepared to receive us, or from other causes our meals may be delayed beyond our fixed hours. Now what shall we do? Shall we conclude that we are suffering great loss, and so make ourselves and others extremely disquieted, and, from sheer determination that we are injured, really make it so in the end? God forbid that we should act in this foolish manner. It is a sin and a shame. It shows how little we regard the circumstances of those who wait on us.

Sometimes feeble persons cannot take their accustomed rest hour. Sometimes they cannot get good graham bread, though they may get other bread, and may get plenty of vegetables. Sometimes they may not find the food cooked in just the best way. Sometimes one petty annoyance may exist, and sometimes another. These things are unavoidable. Now what shall we do? Make the best of the case. Put the whole matter out of your mind. Do not trace the next poor feeling you have to these petty things. In all probability they have no connection. You will sustain no serious injury if you will keep calm and hopeful, and will refrain from worrying. Do not, like some persons, set yourself that you will have it that you have been greatly injured. The will power will turn the scale on the wrong side when there is no need to have it turn thus. Let us make the best of things. It is folly to fret ourselves sick over things that cannot seriously injure us if we will meet them with cheerful serenity.

J. N. A.

THERE is nothing that so refines the face and mind as the presence of great thoughts.

Scarlet Fever.

THIS is not usually an intractable disease, as many suppose, but may be easily controlled, when there are no serious complications. The disease is generally ushered in by chills, backache, red and glassy appearance of the eyes, with diffusive redness, accompanied by more or less fever, with bright red points, or crimson appearance of the skin. There is more or less headache, with soreness of throat, the latter symptom being the more dangerous.

The disease is of an eruptive character, generally showing itself first upon the external surface, the efflorescence gradually extending over the whole body. During the stage of incubation there is shivering, lassitude, with increasing debility, and sometimes with nausea, vomiting, delirium, stiffness of the neck, and soreness of the throat. The tongue is covered with a cream-colored coat at first, but varies as the disease progresses, through which fine red points are seen protruding, the edges being of a bright red or scarlet color. These elevations increase as the coat diminishes; the whole tongue becomes clean, red, rough, and raw (strawberry color).

About the second day of the fever, the eruption begins to appear, usually upon the face and neck at first, finally covering the whole surface. This stage is frequently accompanied with convulsions, coma or sleeplessness. The eruptions remain longest and most distinct where the skin is delicate. In children of dark skin the eruption is more tardy and less distinct than in those of light complexion, and in those of scrofulous habits the disease often proves fatal.

The two most essential points which need looking after are, the character of the eruption, and soreness of the throat. When the throat is severely affected, the eruption is sometimes not so distinct as when the disease is diffused over the body. In some mild cases, however, there are little or no throat affections, except a redness over the tonsils and pharynx. There is generally loss of appetite, constipation, or diarrhea.

In malignant cases there may be foul, sloughy ulcers, and acrid discharges from the nasal passages which interfere with swallowing and respiration. The glands of the neck also become swollen, diarrhea sets in, the tongue becomes brown, dry, and tremulous, with feeble pulse, and great debility; nature rapidly tends toward dissolution, and finally death closes the scene.

Nurses should be careful to change their clothes before visiting other families, as infection may be conveyed through the clothing. The liability to the disease diminishes gradually after the fifth year, and there is little or no danger after the fortieth year. It usually ap-

pears from nine to twelve days after exposure. In some instances it appears the second time. Sometimes, after diseases set in, which are even more dangerous than the disease itself; these are earache, dropsies, general or local, especially in those of scrofulous habits, who possess but feeble reactive powers. Such cases will generally prove fatal unless great care is taken.

During the stage of desquamation care should be taken to avoid exposures to cold drafts, but air should be freely admitted into the sick room at all times of day and night. Keep the room quiet and shaded, as there is generally intolerance of light. In mild cases, but little treatment is needed except for cleanliness; but in cases where there is high fever, soreness of throat, tendency to delirium, convulsions, or sleeplessness, then more active measures must be employed to insure complete success.

Its course terminates favorably or fatally in from five to nine days. It is sometimes complicated with diphtheretic exudations in the throat, and in all such cases the treatment must be vigorous and decisive. Indeed, the beginning of all diseases is the time for heroic treatment in order to conserve the vital forces; whereas, at a later period, this must give place to that of a more passive nature.

TREATMENT.

When the premonitory symptoms begin to appear, a general bath may be given for five minutes at 95°, 98°, or 100°, taking care to cool down to 88° or 85° before coming out; if this precaution is not taken, the system, being relaxed, will be in condition to take cold, and thus the bath may prove a failure. The head should always be wet in cold water before going into any bath, to prevent congestion of the brain.

If there is great restlessness or wakefulness, a hot bath 100° to 105° for five to eight minutes will be of great service; or a full pack for twenty to thirty minutes will sometimes do better. But if these conditions continue, give the spine a prolonged rubbing the whole length, first with a hot wet cloth, then with cool or cold. This being prolonged from five to twenty minutes will generally secure the desired results. If the throat is sore, keep on wet cloths, hot or cold, whichever feel best. These must be often removed. But if the danger increases, with diphtheretic tendency, apply ice to the throat, which will generally soon cut it away, as no morbid growth can advance when the heat is below a certain standard.

When the danger from febrile action has passed, nature is exhausted, and then rest and not active treatment is demanded. Be careful to give but little treatment while the eruption is coming out, as too much may enfeeble the vital powers and cause a retrocession of the eruption, and fatal termination of the case.

If there is desire for drinks, cool water may be given, or bits of ice allowed to dissolve in the mouth, being swallowed, if needed, or spit out at pleasure.

Do not allow patients to go out too soon during convalescence, as the peeling off of the skin makes the body more sensitive to atmospheric changes. See that the bowels are regular; still it is not necessary to move them every day, especially in the latter stage of the disease.

Should there be much soreness of the bowels, give now and then a fomentation for five to fifteen minutes, and also knead the whole abdomen after the manner of mixing dough for bread. This may be repeated each day for ten minutes, for a few days, or until the soreness is gone.

Sometimes there arises a disturbance in the bladder; here the kidneys are at fault. Apply a cold wet cloth to the bowels, and a hot one opposite on the small of the back, following down to the bladder. A hot sitz-bath at 100° will also act favorably. Should the brain become involved by metastasis (transfer), lose no time, but apply hot and cold wet cloths alternately for ten to thirty minutes, then rest, keeping cool wet cloths on during the interval. These may be repeated two or three times daily, or as often as the fever and delirium return.

Fomentations to the head may also be used once or twice daily for five to fifteen minutes. This treatment is objected to by some; but when giving medicine, I never saved a case of inflammation of the brain, but since adopting the above, I have lost but one out of many cases. Care must be taken not to use it too freely, nor too long at a time; as hot treatment always tends to debilitate, cool should be applied afterward to prevent taking cold.

A great mistake is made in inflammation of the brain in applying ice or very cold water exclusively. If the design is to keep down morbid growth, as in tumors, cancers, croup, and diphtheretic membranes, then apply cold, ice, etc.

J. H. GINLEY, M. D.

Backsliding.

BY D. M. CANRIGHT.

THERE is always great danger of backsliding in any good cause. The Jews were constantly backsliding from their devotion to God. Hence they had to have line upon line, line upon line, and the same facts repeatedly set before them. So it is with Christians. It is not so hard to convert men as it is to keep them converted. They will neglect their duties, and gradually slide back to the beggarly elements of the world, all the while confessing that they know better. So it is in every cause where right is contend-

ing with wrong. The evil always has an immense advantage over the good in that it lies along the down-hill road. Any one can go down hill; but the road to the right always leads up, and hence it is up-hill business to keep in the right road.

Every true reformation generally has three mighty forces against it; viz., the prejudice of the people, the established habits of society, and the natural inclinations of the evil passions. Then these mighty forces have the advantage of rushing down hill, while the truth, with a few supporters, must make headway against all these, up hill. No wonder then that reformers are constantly in danger of backsliding! To stop and rest a moment is to be borne down hill.

These facts are especially true of the health reform and health reformers. From ignorance concerning the principles of the health reform, the mass of the people are deeply prejudiced against it. They are not slow to show this on every fair occasion by sneers and raillery, and argument if they can find any. It requires no small amount of moral courage to bear all this, especially before company. Then to sit down to the table and begin by refusing this, that, and the other unhealthful dish, as almost invariably you will have to do, is sure to bring to bear upon you the laughter, the argument, and the teasing of the company and host.

Furthermore, a person's own habits, long indulged, are constantly inclining him to yield to what his judgment tells him he ought not to. This is no light thing to be considered. Add to these the cravings of a perverted appetite for unhealthful food, and we can readily see that a reformer is in no small danger of backsliding. We must confess that we too often see examples of this.

We do well to consider beforehand the danger in this matter, and take proper precautions to avoid it. What shall these be? I will name a few which must commend themselves to every one's judgment.

1. We are apt to forget; and though we may know all the facts in the case, we need our "minds stirred up by way of remembrance." I have often realized this in my own experience. Hence we need the HEALTH REFORMER to come to our tables fresh every month with its short, interesting articles to keep these truths fresh in our thoughts, and remind us of their importance. The Christian has the advantage of the weekly sermon, the prayer-meeting, the daily reading of the Bible, and other reminders to keep him from forgetting and backsliding. Let us, as health reformers, learn wisdom from others, and use those means which will keep ourselves and families "in the faith." While each church member will pay his pastor all the way from \$10 to \$100 yearly to be reminded of his duty and danger, can we not afford to pay something to keep these invaluable truths fresh

before ourselves and families? If we do not, the money will go to the doctor in the end, and we probably to a premature grave. Let us not then fail to promptly renew our subscriptions to the REFORMER, obtain interesting health books, &c.

2. Where there are a number of reformers in one locality, it would be an excellent plan to hold monthly, semi-monthly, or even weekly gatherings for the purpose of exchanging thoughts, comparing experience, relating interesting cases, reading essays, short selections, &c., bearing upon the health reform. Such gatherings have been found, not only very profitable, but very entertaining. They will keep up life and create enthusiasm in the subject of hygiene. Look at other movements, religious, political, and social. What would they accomplish without their meetings and conventions? These are the right arm of their strength. Why do we alone sit still and not avail ourselves of this mighty lever to move on the cause?

3. Habit is a mighty power to hold a person in either a wrong or a right course of action. It is like a deep rut to a loaded wagon. It is our privilege and duty to avail ourselves of this and not let it be used wholly in the cause of wrong. How can this be done? In this way:—

Having decided, for example, that any article of common use, as tea, is unhealthful, and that you will not drink it, then do not allow yourself, under any circumstances, to be influenced to use it. By steadily refusing it, you will in time form a habit against using it, and it will be no small sacrifice of your self-respect and conscience to break over it. Thus, habit may become one of your strong supporters. But if you dabble a little now and then, reasoning that just a little for once will not hurt you, you abandon the strong fortress of habit, and expose yourself to the easy attack of the enemy, and finally to sure defeat. This stratagem of "Come now, just a little for once won't hurt you," has slain its heaps upon heaps of health reformers. "Just a little for once" might not hurt much; but it is always the entering wedge for a little more, and still more, till you form a habit of yielding your convictions of right, and then your health reform is at an end. My friends, this is the way persons always backslide—a little at a time. Stand firm, even if you do seem a little stubborn. Having settled what is right, stick to it "for dear life" and health too.

When you go out calling or traveling, that is the very time to let your light shine by giving all unhygienic dishes a wide berth. I have heard the remark made that such a person was too stingy to buy meat, tea, &c., for his family. How did they prove it? By the fact that he used none of these things at home, but with a faint objection would use them when placed before him upon the tables of others! Such a

person does richly deserve these reflections upon him, though they may not be really true.

But this article is long enough, and so I will stop; though many more reasons might be given why and how we should be on our guard against backsliding from the health reform.

Tea Drinking.

TEA drinking is a fine thing, surely. It is attended with some expense; it never benefits people, and, in fact, it is always deleterious. But there is no question that it is decidedly profitable to the men who furnish tea to the public. There is money in the business to them, and why should not all the rest of the world sacrifice both health and money that those men who import the tea may amass princely fortunes? The following from the New York *Tribune* shows the pains they take to serve the public:—

"Tea drinkers, attention! 'Extra fine tea' may be sad stuff, not calculated either to cheer or to inebriate. Some peculiarly fine gunpowder, lately imported from China to London, has been examined by Dr. Letheby. He carefully inspected it, and found it to contain from 40 to 43 per cent of iron filings and 19 per cent of silica in the form of fine sand, which had been cleverly mixed with the leaves before curing to increase their weight and bulk. These leaves had been colored with a green pigment, 'the result of the whole process being to make an ill-smelling and nauseous mess.' Of this frightful stuff, 1000 boxes were sold at once by auction in Mincing-lane. Then 1,150,000 pounds of tea, part of the salvage of the ship *Lalla Rookh*, 'exhausted and putrid leaves, utterly unfit for human consumption,' were offered for sale in the city. So much for economy in buying extra-fine green tea at 1s. 6d. a pound! But in the cases cited, it was not intended to put a low price on the rubbish. It was to be cooked up and disposed of at a high figure, silica, steel-filings, paint, and all!" J. N. A.

Ventilation.—No. 2.

HAVING considered some of the reasons why we should ventilate, the question naturally arises, How shall we ventilate?

To have a room well ventilated it is not necessary to have a strong current or draught of air continually circulating through the apartment, neither does it imply a low temperature. For, in the first place, but few can endure exposure to a direct draught of air; and again, a cold atmosphere may be, and often is, as impure as a warm one.

What we do mean by ventilation is the removal of irrespirable gases from the room, and the introduction in their place of pure air.

Carbonic-acid gas is the one thing to which our attention should be directed, for besides this other impurities which would be apt to affect the atmosphere of a room are extremely insignificant.

The general impression has been that carbonic-acid gas is lighter than the atmosphere of the room and therefore rises to the ceiling. Just the opposite of this is the truth. It is one-half heavier. That is, a cubic foot of carbonic-acid gas weighs one-half more than a cubic foot of atmospheric air. Of course the force of gravitation will carry it to the lower part of the room. This may be proved, if a person is curious enough to try the experiment, by shutting himself into a small bedroom, placing two candles in the room, one on the floor, and one near the ceiling. In the morning, the candle near the floor will be burning very dimly, if not entirely extinguished, as carbonic-acid gas will not support combustion, while the candle near the ceiling will be burning as brightly as ever.

Ceiling ventilation is therefore entirely inadequate to remove this gas from the room. The gas must be taken where it is, from the lower part of the room, and all other modes will not accomplish the desired result.

From the foregoing we can now see that the old-fashioned fire-place was the best ventilator ever invented. But as the cost of fuel renders this impracticable in most localities, we must endeavor to find some other method. A flue with a register opening near the floor is the next best thing. But here we meet with one difficulty. In order to make the impure air ascend through this flue, a draught must be established. To affect this, gravitation must be brought to bear. For instance, if the air in the flue weighs just as heavy as the same volume of air on the outside of the house, there will be an exact balance, and no draught. But if the air in the flue can by some means be made lighter than the air on the outside, it will be pushed out by heavier air crowding up the lighter, on the same principle that a piece of cork will rise to the top of water, or that a balloon will ascend when filled with gas lighter than the surrounding air.

By returning to the fire-place, we can see how admirably this was accomplished. The fire heated the air in the chimney, thereby rendering it lighter than the outside air. The colder and heavier air of the room near the floor, which rushed in to displace the lighter, warm air of the room, was in its turn heated and expelled, thus creating a draught which effectually cleared the room of impurities.

Let us apply the same principle to the flue. By some means raise the temperature of the air in the flue higher than the outside air, and you have employed a force which will make a continual draught. This may be done by ap-

plying heat at the bottom of the flue directly, as in the case of the fire-place, or by bringing it in contact with, or surrounding, the chimney. The heat conveyed from the chimney where there is a fire to the flue, will be sufficient to create a power sufficient to rid the room of irrespirable gases.

But where a constant amount of atmosphere is being removed from the room, a new supply must be introduced to take its place. Otherwise, all our efforts to remove impure air will be futile.

The objections to the introduction of fresh air through windows during the cold season of the year are that an unpleasant draught of cold air will be created, and, as cold air is heavier than warm air, it will necessarily fall to the floor, producing a stratum of cold air around the feet while our heads are bathed in heated air, thus violating the old maxim, "Keep your feet warm and your head cool."

If, by some means, the fresh air, as it is brought into the room, could be warmed to the temperature of the room, this would be avoided. If the fresh air should be carried under the floor, and be first brought in contact with the stove, and warmed, it would then be of the same specific gravity as the air in the room, and will diffuse itself throughout the room, and thus prevent the stratum of cold air near the floor, and so prevent much of the suffering from cold feet and hot heads which is the result of the present plan of introducing cold air.

In the use of the furnace this difficulty is overcome. The air from the outside is passed over the heater and warmed before reaching the room. But great care should be taken to have the source of air pure, and to have sufficient quantity passed in to take the place of impure air passed out through the flue.

Much objection has been raised to the use of both furnaces and stoves upon the grounds that they burn out the moisture from the air. This is not the case in reality; but the effect produced is the same as though it were true. It is argued that the moisture being burned out of the atmosphere, it would absorb moisture from the lungs and throat of the person breathing it, leaving the throat and lungs parched and dry, and from the skin, drying up the moisture which always exists to a greater or less amount all over the surface of the body, leaving that also parched, dry, and unnatural, and thus making the whole person susceptible to colds, and throat and lung difficulties.

This is undeniably the result, but we cannot understand how the moisture that exists in the air can be dried out. It cannot be done unless it be decomposed and resolved into oxygen and hydrogen gases which formed the water. This cannot be done by the heat of a furnace or a stove. The result is due to the fact that, as the atmosphere is heated, it is rendered ca-

pable of absorbing more moisture. Thus, if atmosphere be taken at a temperature of 32°, or the freezing point, it will hold but a small amount of moisture. Now, if this be heated to 65° or 70° by passing over the heated surface of a furnace or by a stove, it is rendered capable of absorbing a much larger amount of moisture, and it will take it from wherever it finds it.

Now, this difficulty is easily remedied by permitting the heated air of the furnace to pass over a surface of heated water, and by having some arrangement connected with the stove to contain water which will be warmed by the stove and open to the air of the room.

To have perfect ventilation, we must look to the houses yet to be built, and we urge upon every one intending to build a due consideration of the subject of ventilation before placing his plan in the hands of the builder.

In the houses already built, and where the expense would stand in the way of remodeling, the dependence will still be on window ventilation.

In this case, the best way is to lower the window from the top and raise it from the bottom. We have seen an arrangement to shut into the window which admitted the air through small apertures covered with wire cloth, which prevented a disagreeable draught.

By whatever method a room is ventilated, it should be thrown open every day and thoroughly aired.

J. E. W.

Light Food.

PEOPLE often speak of hygienic diet, of grains, fruits, and vegetables, as light food. Now what does common sense and reason dictate in this matter? The camel, the elephant, the horse, the ox, and the swift-footed deer, are all of them graminivorous, and by habit and nature opposed to the use of meat in any form; and these animals are the strongest of the animal races, or we should not use them as beasts of burden. Who would urge any of these noble animals to stimulate their systems with cups of hot tea or coffee, or quids of tobacco, or slices of pork or beef, or glasses of brandy or rum? Surely this would be absurd. Who, then, will say that the diet which pleases the wolf and the lion is superior to that which nourishes the horse and the elephant? Which of these possesses the noblest powers, the wolf or the horse? the lion or the elephant? the leopard or the camel? Which would be most useful to man? And would any strength be added to the strong animals by giving them what is called strong food, that is, highly seasoned food—meats, grease, spices, etc.? Nay, you will say, such habits would spoil these noble animals, and would de-grade and weaken them.

JOS. CLARKE.

The Effects of the Habitual Use of Tea and Coffee.

ALCOHOL and tobacco have nervine, stimulating, and narcotic properties. A nervine is an agent which occasions a slight disturbance of the circulation throughout the whole body, affecting all parts equally. The same agent, taken in a little larger quantity, slightly unbalances the circulation, and determines the flow of blood to the surface of the body, occasioning its stimulating or tonic effect. Increase the amount, and the circulation becomes more unbalanced, and we have its narcotic effect. As health is maintained by the equal distribution of the blood to all parts of the system, the occasional or daily use of anything that causes its delicate, complicated machinery to play irregularly, must injure it. Such are the consequences resulting from the use of tea and coffee. They possess the properties of the drugs mentioned, but in a less degree of potency. The effect produced by drinking the first cup of tea or coffee by one in perfect health, is an unusual exhilaration of feeling. If it is the first time we are brought under the influence of such an unhealthful stimulant, we enjoy, for a short time, a degree of pleasurable feeling never before experienced. Life is intensified. This is followed by a reaction, and the feelings are proportionately depressed. It is for this exaltation of feeling, rather than the gratification of the taste, that stimulants are resorted to, until their habitual use becomes, seemingly, a necessity.

The use of these things is so enfeebling to will power that many of those addicted to their use find it almost impossible to discard them when they would. The use of one stimulant leads to the use of others; and several of them are frequently used by the same person, undermining the constitution, and ruining health. The following testimonies of eminent men on this important subject, are taken from Dr Alcott's work on Tea and Coffee, published by S. R. Wells:—

“Dyspepsia, nervous or sick headache, heart disease, palsy, and sometimes epilepsy—in truth, every form of nervousness and nervous disease which can be named, may be, at times, the legitimate and certain fruit of tea drinking. Or, when these diseases originate in other sources, they are always greatly aggravated by it.

“In particular does tea drinking tend to paralytic affections and to nervous headache. Let not the slave to tea solace herself with the idea that tea cures her headache. It may, it is true, afford temporary relief; it often has done so; but the complaint is always aggravated by it, and the seeds of other diseases are often sown.

“Decay of teeth and disease of the stomach

moreover, are hastened by other causes. It is a well-known fact that the teeth, like most other parts of the animal machine, last much better for being used, at least moderately. But they who wash down their food with their tea, masticate less in the same proportion; and consequently have their teeth more subject to decay.

“For this very reason, too—that is, from the fact that the food is less perfectly masticated and insalivated—digestion is less perfect. Dr. Arbuthnot says: ‘Mastication is a very necessary preparation of solid aliment, without which there can be no good digestion.’ Solid aliment, well chewed, is moist enough without any addition. When, however, we swallow large quantities of any drink, cold or hot, the absorbents of the stomach are taxed, and its vital energies expended in carrying off the superfluous liquid; so that the process of digestion, being commenced and carried on by a weakened stomach, must necessarily be in the same proportion imperfect. Hence, many unpleasant sensations, such as fullness, wind, distention, heat, acidity, and even pain; and hence, too, as the final result, chronic inflammation, schirrhous, cancer, and many more diseases.

“Some of the evil effects of tea drinking fall with greatest weight upon females. How many women who think they cannot get along a single day without tea, owe to it their cold feet and hands, their liability to frequent cold, their peculiar difficulties, especially their weakening ones, and their loss of appetite. No wonder tea drinkers are so frequently *small eaters*, when their tea has gradually destroyed their appetite!

“One cause of scrofulous constitution—I mean by inheritance—is to be found in the use of tea by ancestors. Whatever weakens the nerves—especially those of the stomach—in a mother, is sure to entail a tendency to disease on her offspring, which will not unfrequently prove to be scrofula or tuberculous consumption.

“The senses, or rather the organs of the senses, are sometimes made to suffer from the slow poison of tea—especially the organs of vision and taste. The hearing is affected, at least indirectly, by colds, which are more frequent for the use of tea. Sometimes the voice is affected by tea drinking; but this is a less frequent result than any of the former.

“It is not, of course, for one moment to be believed that black tea tends to disease as much as green tea, or tea that is weak as much as that which is strong. But it is to be believed and maintained that tea of both kinds, and in every degree of strength, tends to disease in a greater or less degree, because in every form, and at every degree of strength, it is more or less poisonous.”

“‘Not a case of sick headache,’ says Dr.

Burdell, of New York, ‘has ever occurred within my knowledge, except with the drinkers of narcotic drinks [meaning tea and coffee], and not a case has failed of cure, on the entire renunciation of these drinks.’

“Dr. Beaumont, whose experiments have attracted the attention of the whole medical world, says, ‘Even coffee and tea, the common beverage of all classes of people, have a tendency to debilitate the digestive organs.’”

“‘As early as 1767,’ says Mr. Graham, in his ‘Lectures on the Science of Human Life,’ ‘Dr. Smith, of Edinburgh, demonstrated, by a series of careful experiments, that an infusion of green tea has the same effect as henbane, tobacco, cicuta, &c., on the living tissues of the animal body; in all cases, first diminishing and finally destroying their vital properties.’”

“Dr. Beddoes, of England, by a series of experiments several times repeated, completely demonstrated that tea is as powerfully destructive to life as laurel water, opium, or digitalis. Indeed, it is entirely certain that a small quantity of a strong decoction of tea or coffee will destroy human life in one unaccustomed to the use of it as quickly as an equal quantity of laudanum.”

“Dr. Cullen observes that ‘scientific experiments prove that an infusion of green tea has the effect to destroy the sensibility of the nerves and the irritability of the muscles.’”

“Prof. Hitchcock, in his ‘Dyspepsia Forestalled,’ repeatedly speaks of coffee as a narcotic. ‘The bewitching influence,’ he says of both tea and coffee, ‘lies in their narcotic properties—the same principle that gives opium and tobacco their attractions. They exhilarate the system, producing a pleasurable glow, and lessening nervous irritability. They do this in a less degree than ardent spirit and wine; still the exciting principle is essentially the same.’”

“Dr. Trotter, in speaking of the cause of nervous maladies, says that ‘the only means of cure lies in a total abstinence from every species of fermented liquor, and from everything that bears any analogy to them, such as tea, coffee, opium, and all other narcotics.’”

“Londe, a distinguished French writer on health, classes coffee among the drinks which *stimulate*, but do not *nourish*. He says, ‘It accelerates the functions only by shortening their duration. It doubles the energy of the organs only by doubling the debility which follows.’”

HOWEVER strong a man's resolution may be, it costs him something to carry it out, now and then. We may determine not to gather any cherries, and keep our hands sturdily in our pockets, but we can't prevent our mouths from watering.

The Teeth, and How to Cleanse Them.

BY DR. D. C. HAWXHURST.

THE mystery of personal beauty is difficult to solve; but we know that it cannot exist along with blackened and unsightly teeth. The attractiveness of the face vanishes away when the smile discloses teeth that are discolored by neglect and marred by decay.

Of course, you will use a tooth brush as often as you taste food; after this you will thoroughly rinse, and soak your teeth if need be, with pure water. You will do all this as directed in a former number of this journal.

But you must use still other means of preservation if you would maintain that perfect wholesomeness of color and brilliancy of surface which is sometimes so attractive in young persons. You must use a delicate soap.

You have brushed your teeth with great care, using a fine powder to increase the friction; you have dissolved away corroding agents from inaccessible places with pure water. Now you will draw your brush several times across a cake of soap, prepared for the purpose, and again thoroughly brush your teeth. You will thus free them from several species of microscopic organisms.

Do you not believe that the mouth is infested by microscopic parasites that live and thrive on the teeth and mucous membrane? Read, then, the estimate of Dr. Harriman. He has reckoned that there are 250,000,000 animalculæ in a single cubic inch of tartar or salivary calculus. And the German observer, Dr. Shroth, has described millions of little creatures in the cavities of decay and about the mouth.

To me, this is no dream of the microscopists. I have myself entered that wonderful world which the microscope can reveal and have seen thousands of minute beings disporting themselves in an atom of tartar, taken from a lady's tooth, with all the gaiety of bugs on a water-surface in the sunshine.

And for this condition, some form of soap is the remedy which will prove least unpleasant and most effectual. It should not be used too frequently; it will irritate the gums. You may use a delicate soap at intervals of two or three days.

If you are in perfect health, and the fluids of the mouth are as sweet and bland as they are almost always certain to be in health, you may extend these intervals. At times, if you are an ordinary mortal, your stomach will lose its tone, your mouth will have a bad taste on arising, your teeth will contract a yellow or green stain during sleep. When this happens, you will use the soap oftener.

What is this yellowish, greenish stain which comes on the teeth at the margin of the gums after a bad night's sleep? It is a microscopic

fungus. It makes its appearance only during morbid states of the mouth, as toad-stools only spring up during a shower. It is a minute vegetable parasite. Sometimes the teeth become heavily coated with it, especially if they are long uncleaned. Like a vegetable moss, it extends itself over neglected surfaces; its roots burrow into and disintegrate the enamel; its top spreads aloft to form that green stain which is its principal characteristic.

Such a stain can only appear when the normal alkalinity of the saliva has been impaired; it is evidence that acid saliva or acid mucus has been at work. A fine soap will be useful here. After taking away the stain with powder and brush, cleanse again lightly with soap.

These attentions having been given to your teeth, your next duty is to your stomach. Soap and powder are useful after this stain is fastened upon the teeth, but they will not prevent it. It is to be prevented by insuring a perfect digestion and normal fluids of the mouth.

Alcohol and Druggery in General.

BY RALPH E. HOYT.

I HAVE recently written a series of articles for the daily *Times*, of this city, on the subject of alcoholic medication and its bearings on the "temperance crusade," taking the same ground and advancing substantially the same arguments as those embodied in the articles which I wrote for the HEALTH REFORMER last season. A few days ago, a medical gentleman of the city appeared in the *Times* with a long and labored article, in reply to mine, wherein he not only championed the theory of alcoholic medication, but also advocated *general druggery*. This pleased me, as it furnished me with a coveted opportunity to "talk back," through the columns of the most widely circulated daily paper in the West.

My reply to Dr. Harvey, which appeared in the *Times* of April 18, is as follows:—

In the *Times* of April 11 appeared a long communication from W. A. Harvey (whom I take to be a doctor of the old school or allopathic style) in reply to my articles of March 19 and 26, on alcoholic medication and its relations to the present temperance crusade. I will not ask for much more of your valuable space, Mr. Editor, in discussing this important question, but desire to say a few words in reply to some of the absurd statements made by Mr. Harvey.

I will not attempt to follow your correspondent through all his tortuous windings, or notice in detail his numerous erroneous assumptions in behalf of alcoholic medication and the women's crusade. He assumes two things, which, if either one be true, the other is completely upset. He declares that alcohol is indispensable

to health, and then gets off an encore for the crusaders, who, he says, are doing a grand work in putting it down. If alcohol were what he represents it to be, it never *ought* to be put down—except down people's throats. The absurdity of the position assumed by my medical friend is so glaring that any person of ordinary intelligence and candor must surely see it. Like a majority of all the writers and lecturers on the subject of temperance, he assumes that alcohol, though bad to use when a person is well, is just the thing when he is ill; that the human system is governed by one set of laws in health, and another and different set of laws in disease; and that an article which would sicken a well person may cure a sick one. I defy this writer, or any other person, be he physician or otherwise, to *prove* either of these propositions. On the contrary, I have already proved, by scientific facts, directly the reverse. To show how implicitly my friend believes in the efficacy of alcohol, I quote from his article a paragraph or two. He says: "Mankind have always been subject to disease. To restore them to health, and save life, offending matter must sometimes be thrown from the stomach," etc.

True as gospel. "Offending matter must be thrown from the stomach," and also from the entire system, for its very presence is disease. And the vital organs always treat *alcohol* as "offending matter," and accordingly proceed to get rid of it in the speediest and easiest manner possible. I repeat that alcohol never "acts on the system," as is generally supposed, but the system acts on or against the alcohol. The same is true of every other kind of poison, and every other kind of "offensive matter." And this is simply in accordance with one of nature's wisest and most beautiful laws.

Your correspondent further says: "In diseased action all is changed, new laws of action are set up, and medicine is now kindly received, and restores what is wanting."

The term "kindly received" is probably intended as a joke, and a nice bit of irony it is. If Dr. Harvey, on entering the house of a stranger, should be assaulted by the proprietor, knocked down, beaten and bruised, and then kicked out doors, he would hardly imagine that he had been "kindly received," nor would he be apt to call again. Yet this is a fair illustration of the "reception" which the human system bestows upon alcohol, and upon every other poison which human ignorance introduces, no matter whether the victim be sick or well at the time of swallowing it.

Again, this admirer of alcohol declares that "if the laws which regulate healthy action, or physiology, are the same as those which control diseased action, or pathology, wherein do the two states differ?"

Perhaps this is logical reasoning, but I fail to see it in that light. State or condition is

one thing, and laws are another. Conditions may change as often as the sun rises, and still the *laws* governing the human body remain the same. Everybody knows that an emetic or a cathartic, for example, will produce the same result in health as in sickness. Why? Because the system acts under the same laws one time as at another. To my mind this point is as clear as daylight.

Once more my friend inquires: "Who would have the presumption to contend that certain diseases could be successfully treated without opium and quinine?"

I have the presumption to declare that all kinds of diseases could be and are "successfully treated without opium and quinine," and also without alcohol or any other drug or medicine whatever. Why, bless your soul, there are to-day, to my certain knowledge, scores, yea, hundreds, of well-educated, scientific physicians in this country (and a few of them are in Chicago) who are constantly treating all kinds of diseases, acute and chronic, without giving a particle of medicine. And what is more, they are curing their patients, too. They use only nature's restoratives, such as water, air, light, electricity, magnetism, &c., and their success is far greater than that of any drug doctors and alcoholic medicationists on earth. When I wrote those former articles I did not design to discuss drug medication in general, preferring to confine myself to the alcoholic question. But since Dr. Harvey has taken upon himself to act as champion for druggery on general principles, as well as for his favorite "remedy," alcohol, I cannot help adding that the whole drug system, of which alcoholic medication forms a prominent feature, is a curse to humanity. I can *prove* this, not only by scientific facts, but by the direct testimony of eminent medical men themselves. I should like to discuss this point, and present some authorities, now, but will refrain, lest I make this article as long as that of Dr. Harvey. His assertion that in my position on the alcoholic question I will "find all scientific physicians substantially agreed in opposing" me, leads me to conclude that he had not read my *third* article in the *Times*, which appeared on the 3d of April, wherein I quoted from a dozen or more of the most eminent physiologists in Europe and America, in support of my position.

My medical opponent expresses a desire to have alcohol confined to the drug stores. So long as alcoholic medication is so extensively taught and practiced, Dr. Harvey and his crusading friends will have a happy time trying to keep it thus confined. While this fundamental error remains at the base of so-called temperance reforms, no amount of praying, preaching, lecturing, or writing against the evils of alcohol "as a beverage" can ever accomplish

the overthrow of the liquor traffic. The question of liquor or no liquor is not a moral question at all; it is purely a *scientific* question. Every man has a natural right to use liquor or let it alone, according as he may believe it to be a good or a bad thing. Whether used ostensibly as a "beverage" or as a "medicine" its effects are precisely the same.

Education of Appetite.

BY R. F. COTTRELL.

THAT we can educate the taste so as to relish wholesome food, cooked in the most simple manner, and without condiments, is what I aim to inculcate in this writing. It is certain that the appetite can be perverted from its natural state, so much so that it will crave the most hurtful and poisonous things. The fact that the taste can be trained to relish such nauseating and disgusting things as swine's grease and tobacco, is evidence sufficient to prove that it is susceptible of education. It is evident, too, that the natural, unperverted appetite for food calls only for such things as can be used to build up the system; hence, the demand for indigestible and innutritious condiments, such as pepper, spices, etc., which only irritate and inflame the stomach and bowels, is merely the creature of a false education. And such, also, is the relish for earthy salts, clay, and charcoal, which some devour.

But people are so accustomed to having their food seasoned with grease and gravies, salt and spices, and such like indigestible things, that they really think they could never relish a simple diet of grains, fruits, and vegetables, cooked in the most simple manner, and free from grease. But if they would firmly resolve to learn to relish only such things as in their better judgment they believe to be the most healthful and nutritious, they could bring their appetite not only to consent, but to delight itself greatly in the change. If they would use one-half the resolution and the firmness and perseverance that the urchin does who imagines that using tobacco will make a man of him, they would succeed to their satisfaction and delight. In this, I can testify from experience; for I believe that no one relishes what they esteem rich dainties better than I do the most simply prepared vegetable food.

The difficulty is, they stand upon the wrong side of the dietetic reform; and, viewing it from the wrong standpoint, of course they do not see it in its true character. They look upon the reform as sinners do upon the moral law—as something that would deprive them of their pleasures. This is the reason why the carnal mind is enmity against God and not subject to his law. But let the sinner be converted—let him get on the right side of the moral law—and

instead of viewing the law as depriving him of his enjoyments, he will esteem it as the most delightful and lovely institution, made on purpose to protect him and all mankind in the perfect enjoyment of all their rights. Having put away the carnal mind, he is at peace with God.

In like manner let the people exercise their better judgment and take their stand upon the right side of the dietetic reform, and they will view it, not as an enemy, but as one of their best friends; a friend that will add to their enjoyment of life, and to life itself, and moreover be one of their best helps to secure the life to come.

Now if it is possible for the sinner to put away the carnal mind, is it not possible for the saint, who has the promise of the Spirit, to put away the carnivorous appetite? Is it not possible for any one, saint or sinner, to break off from the use of hurtful things, such as tobacco, coffee, tea, and the various condiments and appetizers, and educate the taste to enjoy the grains, fruits, and vegetables, which the God of nature so abundantly provides, and which reason and revelation agree in as the primitive and most natural food of man, prepared in the most simple and natural manner? We claim that this can be done; and that instead of taking from, it will greatly add to, the enjoyment of life. This reform, not merely faintly tried, as people try the doubtful nostrums of the patent medicine man, but taken hold of from a clear conviction of its truth, and persevered in, cannot fail to bring its sure reward. By adopting it, you will avoid many a pain and disease, increase the vigor of body and of mind, and add to the enjoyment of life; and the yoke, supposed to be so galling, will be found perfectly easy; nay, you will rejoice in your deliverance from the heavy, galling yoke of perverted appetite.

Rules for Table Etiquette.

UNDER the above heading I do not propose giving the fanciful rules of *fashionable* etiquette, but the common-sense principles of *good breeding*, as applied to the social board, applicable to grown persons as well as children.

1. Take as little room as possible at table, and to this end keep your elbows close to your own sides and not your neighbor's, nor yet spread out on the table, or in the air, as if an attempt at flying were being made. A little practice in keeping the *wrists limber*, and the *elbows quiet* and *in a line with the body*, will make the most awkward persons graceful and pleasant neighbors in this respect.

2. Handle your tools properly. Hold your hand *over* the knife when cutting, taking care not to touch—still less clutch—the steel. Let the hand also be above the fork while used in holding food for the knife to cut, and let the

fore-finger just escape touching the prongs. But when taking up food on either fork or spoon, let the broad portion of the handle lie between the fore-finger and thumb and the slender part barely touch the middle finger of the hand. This will be found to be the easiest (because most natural) and most graceful mode of eating. Persons who properly handle knife and fork rarely, if ever, splash their neighbors or the table-cloth.

3. In sipping fluids, whether from cup or spoon, remember to do so as quietly as possible, and instead of putting a large spoon into your mouth, sip from its side. Of course, the mouth must be *kept carefully closed while chewing*, and the lips as daintily clean as possible. Awkward positions while eating must be avoided. I have seen children lower their heads almost to the level of the plate or bowl from which they ate, and pass the food (soup, gruel, etc.) in much as though they were shoveling coal into a cellar, and with nearly as much noise. I need not say that this is underbred, almost as much so as eructation (belching), hawking and spitting, or hiccupping; all of which should be done in private.

4. Make a point of always using the knife, fork, or spoon, placed in the dish, in helping yourself or others. There are very few people in whom it does not create a feeling of disgust to see the fork or spoon that has been in another person's mouth dipped into the food of which they expect to partake.

5. Under the same head of consideration for the feelings of others comes the using of a tooth-pick at table. The practice is an excellent one so far as the teeth are concerned, but should no more be done in public than tooth brushing.

6. While eating, lay knife, fork, or spoon *on the plate*, when not actually in use; crossing them, or otherwise, as may be convenient, but in as orderly a manner as possible. When the repast is finished, lay them on the plate, not crossed, but parallel to each other. This may seem a minor rule, but its observance contributes so greatly to the neat and attractive appearance of the table (quite as much as spotless linen) that it should not be passed over as unimportant. For the same reason, potato skins, etc., should be carefully laid in a compact pile on or as near the edge of one's own plate as possible, and placed upon it at the close of the meal.

7. Coughing should be avoided at table; when uncontrollable, the person should not merely turn aside the head, but also be sure to shield the mouth with the hand, so as to keep from blowing his breath either on the food or in his neighbor's face.

8. Stretching across the table or one's neighbor's plate—especially the latter—is never allowable, though often practiced from a well-intentioned desire to avoid giving trouble. A lit-

tle reflection will show, however, that it must be a very greedy person who would not rather stop eating to help another than to have that other's arm and sleeve thrust between him and his plate at the imminent risk of brushing his food.

9. Be polite. If their elders are courteous at table, children will require very little teaching to make them say, "If you please," "Thank you," or patiently to await their turn to be served.

In conclusion, let us remember that life, with its comfort or discomfort, is made up of small things, and, therefore, as our neighbor, through organization, circumstance, or education, may be more sensitive or fastidious than we, the rule of our lives should be to "put ourselves in his place" and then in all things "do as we would be done by."

M. C.

"Obey and Live."

BY NELLIE F. HEALD.

OBEDIENCE implies a law, or rule of action. The great Author of life has made all his works subject to laws. In nature these laws are various and wonderful. No blind chance is suffered to mar their harmony. In voices of eloquence they speak to us of the wisdom, love, and power, of their great Author. They teach us lessons of obedience and trust. The atmosphere, to which we owe so much of earth's beauty, its twilight shades, its richly blended morning hues, the delicious blue of its ethereal heavens, the sunshine and the cloudy vapors, all are obedient to the will of Him who guides their motions. The delicate spire of grass, though it wither in an hour, "though the grace of the fashion of it perisheth," is obedient to a law of its nature. The smallest insect that floats its tiny wings upon the ambient air, every dew-drop that holds within its transparent cell a mysterious force, every flake of snow, though it vanish with a breath, is obedient to the same wonderful power. From the smallest of God's creations to the highest exhibitions of his power, obedience to law is manifest. Not a sparrow falleth to the ground without our Father. When man, in innocence, walked with God in Eden, ere sin had left its stain upon his purity, or marred the glorious image of his Maker, he delighted in perfect obedience. He was subject to moral and physical law; and in perfect obedience to both was he to find the perfection of joy and the crown of immortality. Such was the design of the loving Author of his being, who delights in conferring happiness and the riches of his love upon his obedient children. As a loving Father, God created man for himself; made him a little lower than the angels, placed him in blissful paradise, where was beauty, and grace, and every charm

to please the eye, and delicious fruits for food, with nothing wanting to complete his happiness.

In return, God required the loving obedience of the sinless beings on whom he had conferred so much, and in his unerring wisdom he prepared a test to prove their loyalty. Of the fruit of every tree of the garden, save one, they could freely eat. Of this tree it was said, "Thou shalt not eat of it; for in the day that thou eatest thereof thou shalt surely die." To obey was life; to disobey was death. Alas! for the happy pair in Eden; they listened to the tempter's voice and dared to disobey their great Creator. Ever since that sad hour, man has been a creature of disobedience; this once fair earth has become a "vale of tears," thorns have sprung up instead of flowers, feebleness has taken the place of strength and vigor, the rose-tint of health has been succeeded by the paleness of death. Though nature's many voices are replete with the lessons of obedience, but few heed them. By far the greater portion of mankind rush blindly on, wasting their precious vital energies in the pursuit of fancied joys; or in the weakness of self-indulgence they wreck health, peace of mind, and life itself. But to those who will heed the voice, there come words of good cheer, "Obey and live." This is the true motto for our physical, as well as moral, life. Obedience is the path by which we wend our way back to the joys of health, to peace and life.

While many deem it of importance to obey God's moral law, they attach but little significance to the laws which govern the physical system. They apparently forget the precept that teaches us to eat and drink to the glory of God. We should not forget that the Author of the ten commandments is also the Author of the laws of health; and since he has linked the one with the other, let us honor him by a sacred regard for both. Are we not commanded to glorify God in our bodies and in our spirits which are his? And are we not best prepared to glorify the Author of life when our bodies are in a healthy condition? Can we reasonably expect to preserve our bodies in health, when we constantly violate its laws? True, we see those who appear to possess good health who, carelessly or ignorantly, live in violation of its most sacred precepts; but we know that appearances often deceive, and insulted nature may, for a time, conceal her injuries, and utter no warning of the dangers which threaten; but persistent wrong-doing will, sooner or later, reap its reward. The precious gift of health is not to be lightly esteemed. And when we heedlessly waste it in pursuit of fashion or pleasure, or in the indulgence of a pampered and perverted appetite, do we not commit sin? Will not Heaven call us to an account unless we duly repent? Repent and be converted,

"Obey and live," is the voice of reason and true piety. How can we obey unless we understand what is required of us? How can we understand unless we are taught? It is the noble mission of the health reform to teach us how to "obey and live." It teaches us the moral duty of preserving health, and the close relation which this sustains to the religion of the Bible. It teaches us that a delicious diet of fruits, grains, and vegetables, prepared with healthful simplicity, and used with temperance, is most in harmony with the original plan of God, and with the laws of our physical organism. It teaches us to avoid unnatural stimulants, such as spices of all kinds, with tea, coffee, tobacco, etc. These unduly excite the vital organs, and induce signs of premature old age. It teaches us that we should breathe pure air freely, if we would have our voices clear, our blood freed of its poisonous carbon, and our spirits fresh and buoyant. It teaches us never to sit or sleep in hot, close, unaired rooms; that pure air is indispensable to health, as is also the sweet, life-giving, beautifying sunshine. "Truly the light is sweet, and a pleasant thing it is for the eyes to behold the sun." Thus spake the man of wisdom, and all our hearts respond. We need the gentle influences of the sunshine to soothe and strengthen our restless, tired nerves. To sit in sunshine is said to be an excellent thing for an invalid, and we do not doubt it. Try its magic power, dear friends, and prove its worth. Drink nature's elixir—pure, soft water. Its free use for the purposes of cleanliness, and restoring impaired health, has proved it to be nature's healing remedy. A healthful mode of dress, exercise, cheerfulness, rest and sleep, are also important subjects to be considered.

To all the items and rules of health so clearly set forth in the HEALTH REFORMER, your candid and careful attention is invited. Again we repeat and urge you to heed our excellent motto, "Obey and Live."

TRICHINA.—All intelligent lovers of ham and sausage must soon become convinced that there is some more profitable and economical use to which the hog, that great domestic scavenger and scrofula producer, may be put. The most reckless individual must experience a slight twinge of discomfort while tickling his palate with a savory slice of sausage, and at the same time conning the morning newspaper, and finding upon every page new and horrifying accounts of the ravages of that indomitable persecutor of pork and pork-eaters—the *trichina*.

Reports of the continued and increasing ravages of the trichina worm reach us from all parts of the country; and it must be evident, to all but the most obtuse, that total abstinence is the only safe and rational course to pursue with reference to pork, as well as whisky.

To Correspondents.

[OUR space is too limited to allow us to give, in answer to the many questions we receive, anything more than a very brief reply. In many cases this is also made necessary by the meager description of symptoms which we receive. This being the case, we can usually only mention the treatment indicated, when giving prescriptions, and must refer our correspondents to the various works recommended in our Book List, which give full and minute descriptions of the various methods of administering hygienic treatment. When this is not sufficient, application should be made for a home prescription.]

CATARRH, DYSPEPSIA, AND NEURALGIA.—Mrs. L. C. V. complains of having suffered severely from catarrh for twenty-five years; is troubled with neuralgia in head, neck, hips, shoulder, and arm. Is also badly dyspeptic.

Treatment. The most advisable thing for you to do is to seek some good health institution. If this cannot be done, send for the "Family Physician," where you will find full directions for treatment. Careful attention must be given to diet. During the neuralgic attacks, a hot pack taken with a woolen blanket will be found beneficial. For constitutional treatment, packs, sitz-baths, and fomentations over the liver and stomach, should be taken as frequently as circumstances may indicate to be necessary.

DYSMENORRHEA, DYSPEPSIA, AND LUNG AFFECTION.—A. C., Mich., complains of pain between the shoulders, and in the upper part of the left lung. Menstruation painful and prolonged.

Treatment. Take a warm sitz-bath at 90°, just before going to bed, every other day for a week, prior to the recurrence of the monthly period. During the remainder of the time, take a weekly sitz-bath at 90°-92° upon going to bed. Take also a weekly wet-sheet rub, dividing the time equally between the sitz-bath and the wet-sheet rub. Frequent foot-baths upon going to bed will be useful.

INJURY OF THE HIP AND IRREGULAR MENSTRUATION.—J. W., Mo., writes that some months since, his daughter, aged eighteen, injured her hip, and has since suffered from soreness of the joint. Monthly period is very irregular; works hard at housework.

Treatment. Your daughter needs rest and careful treatment. The difficulty in the hip may be incipient hip-disease; the limb demands rest. Give, once a week each, at equal intervals, a sitz-bath at 90° for seven minutes, and 88° three minutes, and a wet-sheet rub. Frequent foot-baths just before retiring may also be taken.

DISEASE OF THE LIVER.—Mrs. N. D. complains of pain under the left shoulder-blade and breast. Has much headache. Bowels irregular.

Treatment. The treatment indicated is hot fomentations over the liver, stomach, and spleen, wet-sheet rubs, and tepid sitz-baths. Careful attention must be paid to the general health.

NUX VOMICA AND DYSPEPSIA.—Mrs. E. G., O., was affected with throat disease several years since, when she took very powerful medicines. She afterward suffered from chill fever for which large quantities of nux vomica were administered. Ever since, she has suffered from the various effects of drug poisons, dyspepsia, etc. Takes a sponge-bath every morning, and has worn a compress on the stomach for two years. She wishes to know what she can do, until she can get strong enough to come to the Health Institute.

Treatment. The lady takes too much treatment. Substitute a dry hand-rub for the sponge-bath each morning, giving a general bath once a week for cleanliness. The compress should be discontinued. Come to the Institute as soon as possible.

CATARRH AND PROLAPSE OF THE BOWELS.—Mrs. F. F. C., Vt., asks: 1. Does catarrh affect the eyesight? 2. Can it be cured? 3. Does hygienic treatment of prolapse of the bowels make a person worse at first?

Ans. 1. Yes. 2. Yes. 3. No.

NERVOUS AFFECTION AND GENERAL DEBILITY.—N. S., Iowa, has been suffering for some time with a throbbing sensation affecting the whole body, but more marked in the region of the spine, and causing a sense of extreme fullness in the head, accompanied with ringing in the ears. She states that it is the change of life with her.

Ans. The general disturbances indicated are quite commonly attendant upon the critical period through which the patient is passing. Rest from household cares and severe labor is imperatively demanded, and is the most efficient remedy which can be recommended, in connection with attention to the general health.

SPOTTED FEVER.—W. J. M., Mo., asks: 1. What is the difference between spinal disease and the spotted fever, if any? 2. What is the cause of either or both diseases? 3. What would be your treatment?

Ans. 1. The term "spinal disease" includes a multitude of various affections of the spine and its adjacent structures. Spotted fever is a term quite commonly applied to one form of spinal disease termed cerebro-spinal meningitis. 2 and 3. See article on this subject in the HEALTH REFORMER for last month.

MAGNETIC TREATMENT OF DISEASE.—N. S. R. inquires why it is that an invalid can be

successfully treated by magnetism, and wishes to know if it is safe.

Ans. So far as curing by what is termed "animal magnetism" is concerned, we have very little faith in the virtues attributed to this supposed curative agent. The cures which are attributed to it are doubtless due to mental influence. Having no faith in the existence of such a thing, we feel no hesitancy in pronouncing it quite harmless, unless it is made a "blind" for obscuring something of a pernicious character, as spiritualism, mesmerism, etc.

OPIUM.—C. F. wishes to know if it will do for him to take opium to still his nerves.

Ans. Opium is one of the most powerful poisons known; and although it gives temporary relief by paralyzing the nerves, its ultimate influence is terribly pernicious.

FOMENTATIONS.—Mrs. L. W. J. asks that directions should be given for taking fomentations. She should send for the "Family Physician," or the pamphlet entitled "The Bath," where she will find all the needed information. See Book List for prices.

MILK IN TUBERCULOSIS.—W. E. S. inquires if a person who is suffering from tuberculosis in one lung, and who is quite rigid in diet in other respects, should abandon the use of milk.

Ans. We do not regard milk as either specifically good or bad in consumption, although it is very objectionable in dyspepsia, and is not the best food for any one; but a good nourishing diet should always be employed, and if milk is found necessary for this, we should not prescribe its use.

PHYSIOLOGY.—Mrs. E. C. H. wishes for a physiology to study with her "Family Physician;" a very good plan which others might imitate with profit. If a thorough treatise is desired, Dalton's physiology is as good as any. If a moderately accurate knowledge of the subject is all that is wished for, we should recommend either Cutter's, Loomis's, or Hutchinson's.

SOFT-BOILED EGGS.—A. L.: Soft-boiled eggs are more easily digested than hard-boiled; but neither is as good food as the various fruits, vegetables, and grains.

WORM TEA.—Kellogg's worm tea can be obtained at almost any city drug store. Is excellent to kill worms.

URINARY DIFFICULTY.—W. B. F. writes that his wife is troubled with pain in the small of the back sometimes extending to the lower part of the abdomen. Wishes an explanation of the difficulty with prescription.

Ans. The difficulty appears to be caused by the formation of concretions called gravel and their passage through the urinary passages. Hard water may be the cause; if so, it should be discontinued, and only soft water should be

employed. When the pain is severe, a hot sitz-bath will probably give relief. All articles of food of a clogging or irritating nature should be carefully avoided.

TRICHINOSIS.—J. R., Ind., asks: Is there any cure for this disease after a person has become affected with it?

Ans. No medicines can be of any benefit in this disease. When the system is not too thoroughly poisoned with the parasites, nature sometimes works a cure. In such cases the trichinae become incapsulated and undergo a sort of calcareous degeneration.

PAIN IN THE SIDE.—Mrs. L. F., Wis.: Your description is so meager we cannot determine the nature of your difficulty. Please locate more definitely the pain in your side.

RANULA AND PARALYSIS.—E. D., Canada, asks: 1. What can be done for a tumor under the tongue of the size of a pigeon's egg, which discharges frequently? 2. Can a child four years of age, who has suffered from paralysis for two years, be benefited at the Health Institute?

Ans. 1. Your tumor is doubtless what is termed ranula, or enlargement of the sublingual glands or ducts. Your only proper course is to apply to a skillful surgeon, who will probably treat it either by partial excision, or by the application of a seton.

2. The little boy can no doubt be much benefited, and probably cured, by a proper course of treatment at our Institute.

MOLASSES.—L. S. S. asks: Is molasses injurious to dyspeptics?

Ans. Yes.

HOSFORD'S SELF-RAISING YEAST PREPARATION.—J. L., Me., says: They have here a preparation for making light bread, and it is claimed that it will furnish to the flour the phosphorus which has been taken out by the process of bolting. Please explain how it is injurious.

Ans. Since it was professed to be discovered by a certain scientific man that phosphorus was brain food, all sorts of ingenious devices have been proposed by means of which the much-needed phosphorus could be furnished to the system artificially. Thus, we have it compounded with sugar of milk and sold in a fluid form. Again, it is offered in the form of candy. The doctor gives some kind of a phosphate in powder. And now it is proposed to compound it in our bread. It is needless to say that all of these attempts are equally futile, and that phosphorus or any other inorganic element added to the food can be of no possible benefit to the system, since it cannot be assimilated or used in any way.

PHYSICIANS, HEALTH INSTITUTE.

SEASONABLE HINTS!

Flower Gardens.

Now is the time to make preparations for an abundance of those beautiful productions of nature which seem especially designed to refine the character, elevate the thoughts, and point the mind to something higher than mere sensual enjoyments. A certain amount of cultivation of the esthetic tastes is quite as essential as the proper training of any other of the mental faculties; and when this can be done so pleasantly as in the cultivation of flowers, and that while the requirements of physical exercise are also being in a measure met, what more excellent means of recreation could be desired?

To the female members of the household, especially, is the cultivation of flowers almost a necessity. The confining, enervating, and, too often, monotonous duties of domestic life, demand the freedom, the exhilarating and invigorating influences of the pure out-door air, and the change of scenery and exercise, which the delightful labor of planting and cultivating a flower garden affords. The improvement, both mental and physical—and we may also say, moral—which this pleasant occupation secures to the female members of any household, will vastly more than repay all the labor and painstaking required.

But a word to the fathers and big brothers. Do not leave all the heavy work of spading, sodding, etc., for the weaker members of the household to attend to. It is not at all beneath the dignity of a man to engage in so elevating an enterprise as the cultivation of fine feelings, noble thoughts, and tender sympathies which he is surely doing, though indirectly, when assisting to surround his home with pleasant and beautiful things, and thus make its attractiveness one of the most efficient safeguards against that strange aversion to home which so often seizes upon young people and leads them to destruction.

Do not locate the flower-garden in some secluded, out-of-the-way corner where nothing else will grow, but remember that flowers, like the Christian graces, must be carefully and tenderly cultivated and encouraged if any satisfactory growth is expected.

Sunflowers.

SOMETIME since, we called attention to the statement of an eminent physician that sunflowers exerted a powerful influence in counteracting the effects of malarial poisoning in localities where the conditions for the production of malaria are abundant. We have since seen the statement confirmed by others who claim to speak from the results of actual experiment. It is said that a good-sized bed of sunflowers in the vicinity of a house will effectually protect the inmates against the malaria which is the fruitful source of ague in our Western States. Those of our friends who are so situated as to make such a thing desirable may find it of advantage to try the experiment. It is not claimed that the sunflower has any specific influence, but that it is a powerful agent in purifying the air, on account of its ozone-producing properties.

LITERARY NOTICES.

THE NEW CHEMISTRY.—By J. P. Cooke, Professor of Chemistry in Harvard University. 326 pages. New York: D. Appleton & Co. Price, \$2.00.

This is the first volume of the International Series which has appeared by an American author; it nevertheless does credit to Americans, both as authors and scientists, being pronounced by reliable critics as the very best work which has ever appeared on the subjects treated.

The subject matter of the book was first prepared as a series of lectures which were delivered at Lowell Institute, Boston. The author has carefully revised the lectures, added some new matter, and now presents us with a charming volume which is attractive both on account of its literary merit, and of the fascinating truth of modern science which it presents in a manner to both please and instruct not only the man of considerable scientific attainments, but also the veriest tyro in this branch of learning.

One of the greatest beauties and chief excellence of the work consists in the fact that it covers just the ground which no other book in the world has previously canvassed, and supplies a gap which has been long waiting to be filled. To the really earnest student of chemistry it reveals principles for which he has long sought, and dissolves mysteries into whose depths he has so often tried in vain to penetrate.

SCIENTIFIC CERTAINTIES. A pamphlet; price, 15 cents. New York: National Temperance Society.

This is a sermon by Rev. Henry W. Warren, of Philadelphia. It is a most estimable little work, and deserves wide circulation. The author takes very strong grounds against alcohol as a medicine as well as against its use as a beverage, and supports his position by the most incontrovertible testimony of science. We are glad to see some leading reformers getting their feet planted upon the true platform.

We have received from the same house several other excellent pamphlets and tracts which we have not space to describe in detail, and only mention their names:—

Suppression of the Liquor Traffic, a prize essay by Rev. H. D. Kitchell, D. D., President of Middlebury College, Vt. Duty of the Church toward the Temperance Movement, by Rev. Isaac Lansing of Brooklyn. Gentle Woman Roused, by Rev. E. P. Roe, a story of the temperance crusade. Campaign Temperance Hymns. A Curious Branch of the Drug Business. A Whisper in the Ear of my Grocer. Shall we Drink Wine? Lost and Saved. The Duty of Total Abstinence. A Letter to Archbishop Purcell, by Dr. J. G. Holland. Advertisement of an Honest Rumseller as it Should Be; a placard.

THE NATIONAL TEMPERANCE ADVOCATE.—This is an enterprising and energetic advocate of temperance, published monthly by the National Temperance Society. It takes a very rational view of the causes of intemperance, and does not overlook the fact that tobacco using is the next door to drunkenness, and one of the chief causes and accompaniments of that vice. Each number contains sixteen quarto pages. Subscription price, \$1.00 per year.

SCIENTIFIC.

Evolution.

No scientific doctrine of modern times has attracted a title of the attention which has been drawn toward the theory, or rather congeries of theories and hypotheses, which is known by this term. Its principal advocates are Darwin, Spencer, and Huxley, three of the ablest scientists of the present age. Many—in fact, we may perhaps say a majority—of our scientific men indorse the views which the writers mentioned have now been promulgating for several years. In Germany, the truth of the doctrine is hardly questioned. A theory which is thus accepted by so many eminent men must be of sufficient importance to demand some consideration. At least, the man who jeers at the idea, and attempts to pass it off with a sneer, gives pretty good evidence that he is quite innocent of any knowledge of the facts or principles upon which the doctrine is supposed to be based. Candor requires a careful scrutiny of the arguments adduced in favor of this as well as all other theories before condemning them.

We do not propose, however, in this limited space, to consider in detail the multitudinous facts and conjectures which are supposed to favor the theory in question; but before proceeding further, let us see what evolution is. Without attempting to make a critical definition of the word, we may say that it is a doctrine which supposes, with reference to life, that all animals and vegetables came originally from the same parent stock; in other words, it supposes that all of the various species and genera of plants and animals which now exist, with all their individual differences and peculiarities, were in the remote ages of the past all precisely alike in form, and structure, and habits, there being only one species of life, and that the very lowest that could exist. It is claimed that from this origin, the almost infinite number of species and varieties of animals and plants have sprung, the various individuals constituting the original species having gradually become more and more dissimilar by the assumption of new characters and the formation of new organs, due to the molding influence of the various circumstances under which they chanced to be placed.

The probability of the truth of this hypothesis, for we must call it such, is chiefly based upon two facts:—

1. It is found by careful and extensive research that the division of animals and plants into distinct species and genera is wholly arbitrary, since no line of demarkation between the various classes exists in nature. There is, on the contrary, a gradual transition from one species to another. Traces of similarity of structure and function may be found between those animals highest in the

scale of mental and physical development, and the lowly creatures at the other extreme of the scale, and all the individuals between the two.

2. It is also found that the type or character of a single species is not fixed, but variable, in obedience to certain laws which are often susceptible of being studied and understood.

Gaining the acceptance of these facts, and they are indisputable, the evolutionist usually considers that he has gained the whole argument; and, indeed, not unfrequently he does. This is not necessarily because he has the truth, however, but because he proposes a theory more consistent than the one he disputes. It is not difficult to show that new species are formed, or that old species are changed. But this does not militate against the idea that certain distinct and well-defined species were created in the beginning, according to the Mosaic account. Who can say that the changes through which the animal creation has passed since it came from the hand of its originator, has not been of a retrograde character rather than progressive, as supposed by Darwin and others? Or, may we not reasonably suppose that the various species of animals which were originally created, according to the Bible, have since their creation been growing more and more alike by a process of gradual assimilation due to the similar climatic and other influences to which they have been subjected? Even Darwin admits the truth of this principle when he tells us that two species which are quite unlike when existing at remote distances from each other, become more similar when brought together under like influences in the same country. The same writer also admits that organization may be retrograde as well as progressive. With these admissions, where need there be any difficulty in reconciling the *facts of nature* with Holy Writ? How often are we reminded of what the apostle terms "oppositions of science falsely so called."

Cause of Decomposition.

ACCORDING to Pasteur's theory, the decay of organic matter, by which means it is converted into its inorganic elements, is due to the development and action of certain microscopic organisms. This theory has been confirmed by U. Gayon, a French scientist. By exposing unshaken eggs to the atmospheric air, at a mean temperature of 77° F., he found that one portion of the egg underwent decay while the other did not. When the same experiment was made with shaken and broken eggs, some decayed, but others did not, even for several months. In all cases where the eggs remained sound, it was impossible to discover the slightest trace of an organism; but in all those which decayed, there were numerous microscopic organisms from the species of vibriones and mushrooms.

Items for the Month.

A BLUE CROSS by this paragraph signifies that the subscription has expired, and that this number is the last that will be sent till the subscription is renewed. A renewal is earnestly solicited.

AN APOLOGY is due S. R. Wells, publisher of the *Science of Health*, for the manner in which his name was mentioned in connection with Mr. Fowler on the first page of the *March REFORMER*. We did not in that number charge Mr. Wells with being a skeptic, or with teaching skepticism. We spoke of skeptics, "especially those of the Fowler and Wells philosophy," having reference to the subject of phrenology as used by the first-named person as a weapon against Christianity. The remark was objectionable, if for nothing else, for its indefiniteness. It is with pleasure that we learn that Mr. Wells is a believer in the Bible and in the Christian religion.—Ed.

It is with regret that we read in a letter from a friend in Napa City, Cal., March 16, 1874, the following:—

"Prof. O. S. Fowler is here. He is a regular spiritualist. He has run his phrenology into the ground."

OWING to the absence of the editor in California, where he has been suffering severely from ill health, the result of his too arduous labors, the above apology has been unavoidably delayed until the present moment; it is with pleasure that we now insert it at the earliest opportunity.

As seen by the above note, there has not been the slightest intention of offending or in any way misrepresenting Mr. S. R. Wells. Imagine then, our surprise to find in the May number of the *Science of Health*, published by Mr. Wells, received just as we were going to press, an article from the pen of R. T. Trall, who was for a number of years connected with the *REFORMER*, in which a very unjust attack is made upon the *REFORMER* and its publishers.

And what makes this conduct appear almost utterly inexplicable is the fact that the publisher of the *Science of Health* had previously been several times assured by letter that whatever mistakes had been made would be rectified; and the above apology is published in fulfillment of that promise.

Our sole interest is for the great cause of health reform, and we have no desire to excite or encourage contention or party spirit in the ranks of hygienists; but truth demands that we should inform those of our readers who have seen, or who may see, the article in the *Science of Health* above referred to, that the insinuations and implications there made are wholly without foundation in truth, whatever may have been the opinions or motives of the individual who penned them.

We would call attention to our advertisement on the cover of "a simple, ingenious, admirable contrivance for supporting women's garments over their shoulders." It is highly recommended by all who have given it a trial, and is rapidly coming into general use. Send to Salisbury, Lindsay, & Co., of this city, for a pair.

Cook Book.

WE shall be able to fill all orders for the Cook Book in a few days. We hope our friends who have already paid for it will not grow impatient. All possible haste is being made.

Bound Volumes of the Reformer.

WE have on hand a limited number of bound copies of the *HEALTH REFORMER* for 1873, which we offer at the moderate sum of \$1.50. They are substantially bound with leather backs and tips, and contain 384 large pages of the most excellent reading matter.

We do not hesitate to pronounce these by far the cheapest health publications in the market. The *HEALTH REFORMER* contains more than twice as much reading matter as any other health journal of the same price, and considerable more than most of those whose subscription price is double that of the *REFORMER*.

To Agents.

WE hope our agents who have worked so faithfully and with such unexpected results during the past winter will not entirely abandon the work now because spring has come, and other enterprises seem to claim some attention. The people need the glorious truths of health reform as much in the summer as in the winter. In fact, the liability to sickness is much greater in the summer than in the winter, and the multitude need to be instructed how to live so as to avoid the terrible epidemics and contagions which, during the hot months of summer, so often nearly decimate some of our large cities.

If the unenlightened people who thus pay the penalty of their ignorance with their lives could be instructed by the circulation of books and tracts, how much of human misery might be prevented! and how many valuable lives might be saved!

Persevere in the good cause, and success must crown your efforts. We will be very much obliged to our agents if they will report to us immediately, informing us if they wish to retain their agencies, and how much time they are expecting to spend in canvassing during the coming summer months.

THE HEALTH REFORMER.

BATTLE CREEK, MICHIGAN.

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