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SOWING AND REAPING.

ARE we sowing seeds of kindness?
They shall blossom bright ere long.
Are we sowing seeds of discord?
They shall ripen into wrong.
Are we sowing seeds of honor?
They shall bring forth golden grain.
Are we sowing seeds of falsehood?
We shall yet reap bitter pain.
Whatsoe'er our sowing be,
Reaping, we its fruit must see.

We can never be too careful
What the seed our hands shall sow;
Love from love is sure to ripen,
Hate from hate is sure to grow.
Seeds of good or ill we scatter
Heedlessly along our way;
But a glad or grievous fruitage
Waits us at the harvest day.
Whatsoe'er our sowing be,
Reaping, we its fruit must see.

General Articles.

Bionomy.—No. 5.

BY S. WATERS DAVIS, M. D.

LAWS OF CELL LIFE.

THE first principle which I shall notice as being peculiar to Bionomy as distinguished from any other system of biotic philosophy is, that *Organic Cells are subject to the same rules of action, are as various in their properties, and as individual in their personality, as are individual beings.* In other words, the cell is the unit of the being as the being is the unit of the world of living creatures. The evolution of organic cells is a perfect

type of that of individual beings. The general arrangement of the component particles of a cell, its functions (elementarily), its order of existence, &c., are the same as those of an individual. When we obtain a full understanding of the laws of individual life, we have a knowledge of those of cell life, and *vice versa*, for they are identical.

The general arrangement of an organic cell is that of a double sack, or bag. That is, one sack inside of another, and the two connected at two extremities, or poles. So of an individual. The general form is shown by the arrangement of the skin and the mucous membrane in human beings, for instance. The skin forms a sack approaching the cylindrical form, inside of which is the mucous membrane approaching the same form, and connected with the former at the several inlets and outlets of the body. Indeed there are certain individuals of animal beings which can be turned inside out and still live with little or no inconvenience. The muscles, bones, nerves, &c., of animals are always arranged between the two sacks. So of the mineral, or inorganic portions of cells; they are neither upon the outside of the external bag, nor within the internal sack, but between the two bags—inside of the external, and outside of the internal membrane.

Not only is the arrangement of parts analogous in general, but particular kinds of cells bear resemblance to particular kinds of individuals. And again, consonant with this fact, and opposed to the teachings of physiologists and anatomists, generally, cells differ from each other, and vary in their properties as much as do individual beings, and, moreover, are capable of a similar classification upon this basis. For illustration, observe plants subsisting upon inorganic food. So must vegetable cells do the same. Also, we see every day that plants use inorganic food, certain animals use vegetable food, certain other animals use animal flesh for food, and that matter, in this case, performs, as it were, a

revolution. The plant carries up oxygen, hydrogen, carbon, nitrogen, &c., from their low position as simple elements, and places them at a certain stage of biotic existence, higher because more complex, from which the herbivorous, graminivorous, or frugivorous animal may obtain them and carry them to the top of the scale, completing half of the revolution, because the highest degree of complexity is reached in this case; and then the fresh-flesh-eating animals may use them, and by so doing, begin to carry them on their downward course to their return to the inorganic, simple, elementary condition. Yet, again, the scavenger may obtain them from the fresh-flesh eaters, and carry them so far as to entirely complete the revolution. This case supposes a complete revolution; but much of the matter used by living beings never performs this whole revolution. Thus, much of the vegetable creation decays without being used by the herbivora; these latter die, and return to their simple elements without the intervention of the carnivora, &c.

These facts are true of cells also. Thus, in case of the human frame, there are the chyliiferous cells which use the food, and thus carry up the vegetable cells, of which it is constituted, to a higher state of complexity. Arterial blood cells still carry this matter higher by using the chyliiferous cells in connection with material from the atmosphere in making the highly-complex blood corpuscles, and the muscular, nervous, and other cells, forming solid tissue, carry this matter to the top of the scale, and to the half-way place in its orbit. From this point, descent begins; and there is a series of transitions from the complex to the more simple, passing through what we call venous blood, and excreta, until by a slight change after leaving the body, the state of simple elementary existence is reached, and the revolution is completed.

As individual beings do not appropriate all of the elements of their food, but assimilate some and reject others, so the organic cell only uses certain portions of its crude nutritive material, and rejects other portions. Thus, the muscular and nervous cells never take up all of the elements of the arterial blood; but each selects such as are suited to fulfill its needs, and rejects such as are not so adapted to its needs. In these analogies between cells and individuals, we see that the chyliiferous cells in man correspond with individual plants in the world of living beings, arterial cells to herbivorous animals, and solid tissue-cells (muscular, nervous, &c.) to frugivorous animals. Then we have correspondents to the fresh-flesh eaters in the venous

blood cells, and to the scavenger, in the cells of the excreta (bile, &c.).

Not only is there this analogy between the organic structure of cells and that of individuals, and between the individual functions of the two; but the analogy still holds in relation to reproduction. Precisely the same laws regulate the reproduction of cells as rules that of individuals. Cells are born of parents as much as are individuals, because no cell can come into existence without both a parent cell and plastic material; and the use of the latter by the former, in the reproduction of cells, is the same as the conception of progeny by individual beings. If we know how individuals are reproduced, we understand the process of cell procreation, and *vice versa*.

Again, the analogy is complete as regards the *order* of existence. Cells are born, grow, reproduce, and die, in the same order as do individual beings. Hence, we see that there is a constant stream of life and death in the kingdom of cells as well as in that of individuals. The world of individuals is subject to a constant supply and waste of beings by birth and death, and so is the world of cells in each individual subject to the same law by the reproduction and death of individual cells. Upon this depends the necessity of food, and the phenomena of bodily waste.

Lastly, the analogy obtains in the order of evolution of cells, individuals, and the world of life in the aggregate. That is, the whole world of living beings, when considered as a unit, is subject to the same laws of organization, function, and order of evolution, as are individual beings and organic cells. All living beings in the aggregate, considered as a unit, or individual, must have had a birth, and must grow, reproduce, and die, the same as individual cells and beings.

If we can get a clear and definite understanding of these principles, we have a key to many of the mysteries of life, which will open the doors of knowledge to us in many directions. But I can hope to do no more in these articles than merely call attention to the leading points, and by so doing, I hope to get some earnest investigators interested in the study of these laws. Perhaps some may rise up as interpreters of biotic science, who shall be competent to give clearer and better statements of these principles than I can do. Some of the subjects hinted at in this article will receive attention in detail in future numbers of the REFORMER.

Makanda, Ill., June, 1869.

EXPERIENCE is the mother of science.

The Woes of Watering Places.

[UNDER this caption the New York *Tribune* discourses wholesome words. They ought to be read by every "pleasure-seeker" in the land. We can hardly conceive of a more senseless and soul-belittling mode of life than that which is limited to a routine in eating, drinking, dressing, and flirtation. —R. T. T.]

"Watering places are a mirage. Afar off they look brilliant and enticing. They are phantoms of pleasure, hospitality, rest, delight. Approached, the unsubstantial vision resolves itself into the sun of Fashion and the bubble, reputation. The sea, the lakes, the hills, the springs, all offer an excuse but not a reason for a watering place. Reason forsooth! Reason *for* one and reason *at* one are equally inconceivable.

"A sane man or woman, dreaming of the mountains, has foregleams of an eternal majesty and beauty, of an icy purity and peace, of a limitless freedom as of the winds that blow through the passes; dreaming of the sea, has sight of worlds unknown and a larger life, and hears solemnly chanted the burden and the mystery of these narrow days; dreaming of lakes, looks out on level leagues of blue, where tiny islands float like flower-cups, and the still shores seem to sleep; dreaming of springs, fancies a woodland nook all greenness, and coolness, and odor—mosses and the shining leaves of the wake-robin under foot, a shade of dancing leaves overhead, and the trickle of water among gray rocks. Then the sane man or woman, taking counsel of the soul, says: 'At the White Mountains, or Long Branch, or Lake George, or Saratoga, not only shall this prophetic vision be seen of these fleshly eyes, but a fine society shall be encountered. Lovely persons will go there to find other lovely persons from Atlantis and Cathay, who could never hope to meet but at such a common center. They will move in an atmosphere of quiet and refinement, of gayety and leisure, of simplicity and sweetness. There shall be found the grace of the city without its pretensions, the elegance without the exclusiveness, the brilliancy without the glare. A summer month would fly too fleetly thus, and the only pain be that of parting. Let 'us hasten thither.' The sane man or woman then packs the pertinent worldly gear, and arrives, let us say, at Saratoga. The lovely village of the imagination, regal with elms and musical with waters, turns into a colony of hotels, each bigger

and whiter, and more pretentious than the other. Choosing one for his abode, the eager traveler bethinks him of his woodland nook, and wanders forth to find it. The spring, at thought of which his heart leaped up, is a melancholy orifice in the floor of a wooden pavilion, like a huge bung-hole in the great Tun of Heidelberg. Shock-headed boys dip up tumblers-full of nauseousness and absorb pennies with preternatural rapidity. All the world and her husband lounge over the railings, and giggle, and tattle, and gossip. The odorous meadow is a rectangle, primly fenced. For spongy mosses, stretch hard, straight walks of gravel; for gloom and stillness, are glare of sun and clink of metallic voices; for rest, the friction of a restless crowd. Back to his hotel toils the ingenuous tourist in search of the ideal society. Loud, slangy, or stupid men confront him; brazen, overdressed, and flippant women; poor little children older than their mothers, and arrogant as their fathers. No doubt the gracious citizens of Atlantis and Cathay are there, but he cannot find them. For this Fool's Paradise is but a transplanted New York. The people who knew each other at home, jostled in the Exchange, or outdressed each other at routs, meet again to say and do the same things, to eat and drink the same things, to follow, in the country, the same empty fashion of life which disquiets them in town. And the quiet, earnest, simple souls who did not guess that dress and diamonds were the measure of social success, look on, amused on the first day, bored on the second, saddened on the third, and cynical on the fourth, if by any chance they stay so long. Every sense is offended by this artificial life. The great dining-rooms, with their gregarious and greedy dinners; the great ball-rooms, with their staring walls and floods of light, and showy toilets of women submitting to be stared at by all manner of men; the great bowling-alleys, with their noisy troops of bowlers; the great parlors, with their eternal dress-parade of vanities; the great lawn, where conscious croquet-players invite admiration; the great piazzas, crowded with promenaders brassier than the instruments that time their steps—what part have refinement, and good sense, and good taste in these exhibitions?

"If the tourist, listening with credulity to the whispers of fancy, and expecting that the deficiencies of the present day will be supplied by the morrow, comes yet undismayed to Long Branch, he will wear his rue with but the slightest difference. There is an ocean, to be sure; but only certain maniacs, mad for Neptune and the Nereids, remember

it. There is a bleak and barren stretch of sand doomed, at the Primal Curse, to bear hotels. And it is the business of the twenty thousand people who spend their summers there to eat, and drink, and dance, and flirt, and dress, and gabble about nothing, so that they may come back to town more extravagant, more unreal, more censorious, more worldly, more inane, than they went away. Newport, and Sharon, and Lake George are less pronounced because there are fewer men and women at them; but the order of things is the same.

"Now, these mistaking souls who dream of Heaven do not *mean* to be underbred and coarse. The men intend manliness and an air of having opened the world, their oyster, with sword, or quill, or counting-house rule, or razor, or butcher's knife, or corkscrew, or weaver's beam. The women intend archness, and elegance, and an air of having been born to the purple. But the knowledge that they are under inspection every moment of their waking existence keeps them attitudinizing behind the footlights of their small stage in a self-consciousness that never sleeps. And therefore they are vulgar. Every human being, known and unknown, is their auditor and spectator. And so the men are not independent and quiet, but aggressive and stupid. The women are not elegant and spirited, but lavish and pert. It is the result of the vulgar publicity of hotel life, and it perpetuates that vulgar publicity.

"We suppose the material comforts of these places to be at their best—and they are oftener most intolerable and not to be endured. We suppose large and cool chambers—and they are more often small, and hot, and dingy. We suppose swift-footed waiters, and scientific cooks, and plentiful, excellent food—and we remember very different things. And yet the Iliad grows. For worse than any discomfort of the body is the pining of the soul in lifeless air. Sad for the country is the knowledge that her richest citizens are the most prodigal of senseless display, the most selfish, the most indolent, the most empty. Dangerous is the fact that thousands of young girls lose the blush and bloom of maidenhood in these mad revels, and are sordid, and hard, and overwise before they marry; that hundreds of young men exhaust life before they can guess at the meaning of life, and cease to reverence women. This year the magnificent journey to California is possible. And this year, and all years, there is such a good society waiting in quiet country places for the weary wights who have long exhausted fashionable spots.

Those oldest families, rocks, and trees, and rivers, require no letters of introduction, and no hospitality is comparable with theirs. The air is wine, the sun is healing, the winds blow from Araby the Blest. There is real rest and peace for body and soul. And for amusements—a Grand Opera of birds, a panorama of vernal miles, balls of the butterflies and glow-worms, Opening Days of the flowers. All railroads and steamboats sell through tickets to these Elysiums. The fare is not, of a necessity, high, and poverty is in fashion at them all. When it is 'the thing' to seek them out, Society will blandly wonder that it could have endured for a single season the woes of the watering places."

Preserving Fruit.

[To meet the wishes of several new subscribers, we reprint the following article from Vol. 3, No. 1. Another year's experience has simply confirmed its usefulness.]

The fruit season is now fairly upon us, being ushered in by the strawberry crop, now rapidly ripening in some parts of the country, and perhaps by the time the REFORMER will have reached all its readers, entirely gone by in some sections. Correspondents are inquiring as to the best methods of preserving fruits of various kinds, and we have taken pains to learn the most reliable methods in order to meet the wants of our readers.

By "preserving" we do not mean the old-fashioned plan of converting fruit into an indigestible, unwholesome mass, by adding "a pound of sugar to a pound of fruit," by which it is not only prepared to resist decomposition, but the action of the digestive fluids as well; but a method by which this important constituent of a hygienic dietary, and especially the more perishable varieties, may be made available for use out of their season.

Much has been written upon this subject, and many methods recommended as "the best," but success in this, as in other departments of the culinary art, depends more upon careful attention to details, and the exercise of good judgment, than upon this or that particular method.

CANNING.

The best method to preserve fruit with all its original flavor, is by hermetically sealing it from the air in cans prepared for the purpose; and these should be of glass or stoneware, as the acids of fruit act chemically on tin and other metals, often destroying the flavor of the fruit, and sometimes rendering it very unwholesome. Either self-sealing cans,

or those which require wax, may be used successfully, but probably the former are better for those of little experience, and they are unquestionably more convenient. Of these, there are several claimants for public favor, all of them highly recommended, and doubtless all of them good.

THE SELECTION OF FRUIT.

This should be done with the greatest care. Some varieties can not be preserved at all, unless canned when perfectly fresh, and success is more certain with all kinds if this particular is regarded. The fruit should be nearly or quite ripe, but not over-ripe, and any which bears signs of decay, must be carefully excluded.

COOKING THE FRUIT.

Nearly all varieties are better steamed than stewed or boiled, and this for three reasons: 1. The fruit is not so badly broken and mashed; 2. It retains more of its original flavor; and 3. Little or no water is required to be added, and it is therefore cooked in its own juice.

Almost every family has conveniences for steaming on a small scale, either with the common tin steamer, or the elevated platform, which can be used in a common kettle. To those who wish for more ample facilities, we would recommend the following cheap and simple method: Take a common wash-boiler, and have fitted into it a horizontal platform of sheet-iron, perforated freely with half-inch holes, so as to allow the free passage of steam. Have it mounted upon legs, so it will stand clear from the water, which should be only a few inches deep in the bottom of the boiler.

Have your fruit carefully picked over and placed in a clean tin or earthen dish, with a cover over it to prevent the condensed steam from dropping into it. *No sugar is required* with any kind of fruit. We are informed by one who is always successful in this business, that the flavor of the fruit is better preserved without sugar, and she *never lost a can*. If sugar must be used, it can be added when the cans are opened for the table.

Place your dish of fruit on the platform of your steamer, having sufficient water in the bottom, but not too much. Then cover the whole closely, and steam until thoroughly scalded. Some kinds of fruit require a longer time than others, and judgment must be exercised in regard to the matter. It should not be cooked so as to fall to pieces, but care should be taken to have it thoroughly scalded.

While the fruit is cooking the cans should be prepared. Have them thoroughly cleansed,

and when ready to fill them place the can upon a folded towel, wet in cold water.

The fruit may now be poured into the cans. Peaches, pears, or other large fruit, may be tastily arranged in the cans with a fork, piece by piece, and the boiling juice added afterward to cover them. When the can is full, shake it, and incline it back and forth, so as to cause the air to rise to the top, if any should be among the fruit. Be sure that the can is full to the brim, and then screw on the cover, or if not a self-sealing can, put in the cork, and cover with melted sealing-wax. The following recipe makes good wax: One pound of rosin, two ounces of beeswax, one and a half ounces of mutton tallow. Melt and mix.

While placing the fruit in the cans, be careful to protect them from currents of air, as they are frequently broken by a simple draught of cold air.

All the above work should be performed expeditiously. The cans may then be set away to cool, and should be kept in a cool, dark place, and closely watched for a few days to see that the sealing is perfect. If the fruit shows signs of not being perfectly sealed, it should be at once taken out, scalded, and sealed again.

Tomatoes, berries, and small fruits, may be preserved in stone jugs. Observe the same rules in preparation, heating the jugs thoroughly before putting in the fruit. When filled, place one or two thicknesses of cloth over the mouth, and then put in the cork, covering the whole with wax.

By close attention to particulars, and the exercise of good judgment, success is almost certain.

W. C. G.

Hard Water.

By hard water is meant water that contains substances capable of forming insoluble soaps. These substances are most frequently lime and magnesia; the former being the more common, though both are frequently found in the same water. The lime and magnesia of such water, upon the introduction of ordinary soap, decompose it by substituting themselves for the potash or soda, which was the base of the soap. Thus an insoluble soap is formed from a soluble one, which appears in the water as a white, curdy precipitate. Thus the cleansing property of the original soap is destroyed, while at the same time, the interstices of the cloth which is being washed, or the pores of the skin that is being bathed, are completely closed up.

This substitution of a weak base for a strong one, as when lime takes the place of

potash, is seemingly contrary to all the laws of chemical combinations; for nothing is clearer than that an acid like the fatty acid which is one of the elements of all soap grease, will select the stronger of two bases. But in the instance before us, the fatty acid breaks up its union with the strongest of all bases and allies itself with one of the weakest of the class. This seeming anomaly in the operation of a well-known law is not easy to explain. Perhaps, however, the following explanation will be clear to most minds: Each portion of the soluble soap, by the agitation of the water, comes in contact with a particle of lime or magnesia, and the moment it comes in contact it forms a union with it which cannot be destroyed by the water; for the new substance is not capable of being dissolved. Thus, in time, every particle of potash or soda soap comes in contact with a particle of lime or magnesia, if there is sufficient in the water, and its worth as a material for cleansing soiled garments or dirty skin is entirely destroyed.

Having explained the action of hard water on soap, it may be well to consider how water acquires its property of "hardness." In doing this, we shall limit our remarks to hardness occasioned by the presence of lime, as the same principle will apply to magnesia.

Pure water is capable of dissolving about one seven-hundredth part of quick-lime. This forms lime water, which is equally as transparent as water that contains no lime. It is hard water, but not the kind that is ordinarily found in nature. The most common kind of hard water is that which contains carbonate of lime in solution. Now this substance—ordinary lime-stone—is very sparingly soluble; water only dissolving it to the extent of about two grains to the gallon. If, however, the water contains carbonic acid, then it is capable of dissolving lime-rock with a facility in proportion to the amount of acid it contains. Thus we find the water of some springs that have their origin in subterranean caverns, filled with this gas, and when discharged through limestone rock, remarkably hard. The same is true of the waters of deep wells—particularly those that are walled up with limestone, or which receive their waters through lime soils.

The water of cisterns, too, is liable to become hard, to the wonder of the good housewife, if the cistern is made of bricks laid up in mortar, and lined with hydraulic cement. The reason is found in this: The water, as it falls from the clouds, is very pure and soft, just the thing for bathing or washing clothes—but in its descent through the air it takes up carbonic

acid. It also absorbs more from the decaying leaves and vegetables that find their way into the cistern. The water thus impregnated with carbonic acid is capable of dissolving both the lime mortar between the bricks and the cement lining, often causing the latter to loosen and fall off. On this account wood cisterns are preferable, if the only object is to keep the water soft. They are liable to decay, however, and are, for this reason, objectionable.

The manner in which carbonic acid acts to render carbonate of lime soluble is beautifully illustrated in the formation of stalactites in caverns. Water, charged, as we have spoken of, falls in drops from the roof of the cave; but each drop remains increasing in size for a moment before it falls, during which time it loses a part of its carbonic acid, on account of the air in the cave being warmer and having less pressure than that far back in the mountain. Now this drop which falls cannot hold in suspension so much carbonate of lime as it had when it was forming, on account of this loss of carbonic acid; accordingly it must leave behind it a part of the mineral substance on the roof of the cave. Thus every drop deposits a minute portion of calcareous matter on the spot where it forms, and finally we find, after the lapse of centuries, enormous stalactites hanging from the roof of the cavern. The same explanation will account for the formation of the stalagmite.

A series of experiments can be easily performed illustrative of the effects of the presence of carbonic acid on lime in solution. First, slake a small piece of quick-lime in a convenient vessel, stirring it well after the lime has slaked. When the water has become clear, as it will after a few hours, decant some of the clear liquor into a clean tank. After a little, a pellicle of carbonate of lime will form upon the top of the water, carbonic acid being absorbed from the air.

To hasten this operation, introduce a short tube into the lime water—a straw of grain or a pipe stem may be used for want of a glass tube—force in the breath from the mouth, and in a few minutes the water will become opaque on account of the formation of curdy, white flakes of insoluble carbonate of lime. Rest now for a few moments, and introduce the tube again, and blow through it as before. After a little the curdy flakes will begin to disappear, until finally the water will become clear as at first. The carbonic acid has dissolved the carbonate of lime. Now pour a portion of this water into a clean dish, and boil it; a coating will be formed on the bot-

tom of the dish, as is common on tea-kettles. To the portion remaining in the glass add some caustic potash, and the same result will be produced. In both instances, the carbonic acid has been separated from the water, by boiling or by union with potash—and the great mass of the carbonate of lime sinks to the bottom, plainly showing that it is nearly insoluble in water that contains no carbonic acid.

These experiments, which are worth trying for amusement, will enable us to get at some practical ideas in the "softening" of hard water, a thing very desirable to accomplish in some localities. To effect this softening, we must remove the uncombined carbonic acid. This we can do by briskly boiling the water for some time in an open vessel, then covering it and permitting it to cool; or we may introduce into the water some caustic potash or soda, or even the lye from leached ashes. In either case the lime will be precipitated, and water must be carefully dipped out to avoid disturbing the sediment.

Soft water is not only essential for cleansing purposes, but it is much preferable for cooking. It is almost impossible to cook peas and beans in the water of some wells. Soft water, that obtained from melted snow being best, alone should be used in the preparation of soup, gruel, and mush.

Earth Closets.

THE water closet, although a very convenient and almost indispensable appendage to a first-class residence, is open to many objections, arising from carelessness in its management, freezing of pipes, &c., which are too well known to need specification. The earth closet, improved as it has been already, and doubtless will be, is destined, if we mistake not, to prove a formidable rival to the water closet.

The general principle which gives value to the earth closet is the power of earth to deodorize decaying and decomposed organic matters. This is due partly to its absorbent power upon gaseous compounds, and partly to chemical reaction between the substances of which earth is composed and the offensive matters. The absorbent power of earth upon effluvia has been long known. In rural districts, the practice of burying clothes to rid them of smell caused by too intimate contact with that personally disagreeable, but to hop-growers exceedingly useful little animal, the skunk, is a common practice. It is well known that excrementitious matters, covered with dry earth, are not only completely deodorized,

but form the most valuable of all known fertilizers.

The mechanical construction of earth closets, as they are now made, is such that, by a simple movement, matters deposited therein are instantaneously covered with a layer of dry earth, and, thus deodorized, may be removed with as little offense or trouble as ashes.

The plan is commendable in many points of view. On shipboard its introduction would obviate the most intolerable nuisance. In hospitals it would greatly promote the health and comfort of both patients and their attendants. It is equally applicable to dwelling houses, wherever situated, and under any circumstances whatever, and is as applicable to a commode as to a room set apart for the purpose. It removes all danger of the impregnation of wells with excrementitious matters, an accident now of frequent occurrence, and the cause of frightful epidemics.

Its universal adoption would lessen the demand upon the water supply of cities to a very large extent—an important consideration. It can be made convenient in use, and, lastly, but not by any means least, such a system might be made to restore to lands the large amount of valuable fertilizing matters which now flow through the sewers of seaboard towns to contaminate the water for miles around.

The value of this now wasted sewerage is enormous. It may be estimated in millions annually. Engineers have racked their brains to devise some means of utilizing this waste; it seems to us that the earth closet is the true method for its accomplishment. Not that we believe the principle has been yet wrought out to perfection, but that it is capable of being applied so as to cover all the requirements of the case.

Our attention was first called to this subject by the perfect absence of smell, and the superior cleanliness of the earth closets of the Oneida Community, an association which, whatever its errors of belief, is not open to any criticism on the score of cleanliness. These closets are daily cleaned, without inconvenience, by simply drawing away the earth and deodorized matter with the receptacle allotted to them, and replacing it by another. The compost is used on their lands, and is considered an extremely valuable manure.

We are glad to see that public attention is being directed to this matter on both sides of the Atlantic, and we trust the subject will be discussed, and the matters tested until its merits are fully established.—*Scientific American*.

The Health Reformer.

Battle Creek, Mich., August, 1869.

The Temperance Cause.

WE have on our exchange list several ably-conducted journals, devoted exclusively to the temperance cause. Their influence for good is unquestionable, as their cause is a noble one. The ability displayed in their management is a noticeable feature, and the advocates of temperance have cause for congratulation in having for allies in their work a well-conducted temperance press.

We cannot help thinking, however, that some of this ability is displayed, and much of the labor bestowed, to a decided disadvantage, by refusing or neglecting to plant the cause on the true temperance platform. So long as alcoholic medication is countenanced by the advocates of temperance, so long will their cause languish and suffer. It is placing in the hands of their enemies one of the most powerful weapons they could desire. If alcohol is useful when a man is sick, a little of it must be good when only a little sick; and as nearly all mankind are "a trifle ailing" the greater portion of the time, of course the plea for liquor-drinking is irresistible.

We are led to these remarks by seeing an article in the *Templar's Magazine*, published by the Supreme Council of Good Templars. It is copied from the *Scientific American*, and contains the following paragraph:

Besides its antiseptic qualities, alcohol is a stimulant, aiding in the effect of the drugs or extracts with which it is combined. It stimulates the physical forces of the human system, when rendered inactive by disease; it is a "force put," a "make-shift," as mechanics would say; useful to keep the enfeebled body from the grave, and to impart new life to organs almost past sensation by other means. And there its usefulness ends. It never imparted additional strength to the robust; it never made the old young: it gives nothing, it only acts on what there is.

So long as temperance journals will publish such contradictory conglomerations of confusion as the above, their cause must suffer accordingly. Look at the absurd contradictions. It is "useful to keep the enfeebled body from the grave," and yet "it never imparted additional strength to the robust." It can "impart new strength to organs," and in the next breath "it gives nothing"! "it only acts on what there is." "And there its usefulness ends." What a pity! After keeping the enfeebled body from the grave, and imparting new life, it seems too bad to have

it stop there. And yet, would it be reasonable to ask any more? If the enfeebled body is kept from the grave, and has new life imparted to it, is not this almost a realization of the toper's idea of "victuals, drink and lodging," in the magic whisky bottle? What other *remedy* so potent as this? And how discriminating! Never imparting strength to the robust, but reserving its wonderful qualities for "organs almost past sensation by other means."

And all this absurdity in a temperance magazine; neutralizing as it necessarily must, to a great extent, the effects of the good counsels and stirring appeals contained in its other pages. When the temperance cause is placed upon the only correct basis, total abstinence *under all circumstances*, it may hope for prosperity.

W. C. G.

Case Reported.

AN afflicted mother, much concerned about the health of her babe, brought it to the Institute in the early part of the past spring. It was about eight months old. Its face and head were covered with sores. On the cheeks, and top and back part of the head, the sores ran together, forming a continuous scab. They appeared in a fester, or pustule, with inflammation around the edges, covered with a thick scab, under which was a yellowish matter.

On the back part of the head, the sore was as large as the palm of my hand. The cheeks were completely covered with scab, as was also the forehead.

Its parents were tired out with its restlessness, as it worried and cried most of the time. The sores were extremely irritable. The child would rub and scratch them, causing them to bleed, and it would fret, and exhibit great discomfort, day and night. The parents were obliged to sit up to rock it, or keep it in motion, to induce it to rest any.

What made it more alarming to the parents, was the fact that they had been robbed of two babes in infancy by the same disease. Those that had died, had been fed, one on cow's milk, the other, partly at the breast, and partly on cow's milk. This one had been brought up on cow's milk. On coming under the care of the Institute, its diet was changed to gruel, made of water and graham flour, with the addition of a little milk. This not agreeing with the stomach, the milk was discarded entirely. The gruel was made by wetting unbolted wheat flour with cold water, and pouring it into a larger quantity of boiling water, letting it boil a few minutes. When properly cooked, it was strained through

a sieve, to take out the coarse particles of the bran.

The child was fed at regular periods. The water treatment consisted of an occasional sitz bath, with frequent general baths to keep the skin in good condition.

The change of diet soon told on the child. It grew more quiet, and the sores began to heal. After a stay of a few weeks, the mother was so encouraged that she thought she could care for it at home. A letter from her since her return home, speaks regarding the health of the child as follows :

"My babe is improving as fast as could be expected. His face and head are nearly as smooth as any well child's. He is as good-natured as I could wish him to be, and is full of play most all of the time, for all he is cutting teeth, and has a slight cold."

P. M. LAMSON, M. D.

Health Institute.

A Correction Corrected.

BY R. T. TRALL, M. D.

OUR sugar-loving friends seem determined to have the last word. They certainly have the sweet side of the controversy, and all the advantages of an educated public taste in their favor; and if, in attempting to "correct our errors," they would not perpetrate errors, we would prolong the discussion. With this introduction, we present to our readers the following :

"I desire to correct an error into which Dr. Trall and others have fallen in the discussion of the sugar question. They condemn sugar as an article of diet, or food, on account of its being a chemical product. In this they are in error, as sugar is a vegetable product, and no chemical operation is necessary in its manufacture. The sap of the sugar-cane, sorghum, imphee, maple, beet, and cornstalks, contains sucrose, or cane sugar in its natural state, and requires only condensation, and separation of the sugar from the starch and other substances contained in it, to perform which requires only mechanical, but not chemical, operations.

"Take, for example, maple sugar, with the manufacture of which I am better acquainted than that of others. If, at the proper season, when the maple produces no other vegetable product than sugar, the trees be tapped, and the sap be collected in perfectly clean vessels, and be kept free from all extraneous substances, and be boiled down, it will form a syrup almost as clear as crystal, and by further boiling or evaporation, it becomes a bright sugar, nearly white. If any chemical operation is involved in this process, I am unable to see it. The tapping of the tree is purely mechanical, and so is the boiling. As well might the cooking of potatoes be called a chemical process, and cooked potatoes be called a chemical product, and therefore condemned as unfit for

food; for, verily, the cooking of potatoes changes their taste and qualities far more than boiling does that of maple sap.

"Again, Dr. Trall and others recommend boiling down the watery juice of tomatoes previous to canning. So they might as well condemn canned tomatoes as a chemical product. Grapes produce glucose, or grape sugar. Apples and other fruits produce fructose, or fruit sugar. The nearest approach to a chemical production of sugar is the transformation of starch by dilute sulphuric acid into a substance resembling glucose, which is no more sucrose, or cane sugar, than vinegar is lemon juice. If sugar produces any abnormal physiological conditions, let them be pointed out, and if possible the *modus operandi*, and let sugar be praised or condemned according to its deserts.

"Yours for truth,

R. M. CAMERON.

"Hesper, Iowa."

In reply we have to remark that Mr. Cameron does not understand our position. We say that sugar is an element, or constituent, of food, but is not food itself. No element or part of anything can be the thing. A, b, or c, is not the alphabet. Bones, flesh, nerves, brain, heart, lungs, stomach, bowels, or liver, is not a man, nor a beast, nor any living thing. The letters m, e, C, a, r, o, n, are not Cameron, but merely the elements which, properly arranged or combined, may produce Cameron. Sugar, at most, is only an element, or constituent, of food. Food, as we have repeatedly explained, is a compound of various proximate elements, or principles. Whether sugar is obtained from organic products by a chemical or mechanical process, does not in the least affect the main question in issue. All food is produced in the processes of organic growth. Is sugar so produced? Mr. Cameron tells us that it is made by taking the sap from the tree and evaporating it. Is this a process of growth? We should think it was, "on the contrary, quite the reverse."

But let us try once more to illustrate this intricate problem. The elements of water—oxygen and hydrogen—can only be separated by chemical processes. But, when separated, no one would think of calling either of them water. The elements of atmospheric air—oxygen and nitrogen—can be separated either by chemical or mechanical processes, as they are merely mixed and not combined. But, when separated, neither is atmospheric air. Oxygen and hydrogen constitute drink, or water, only when combined in certain proportions; as oxygen and nitrogen constitute atmospheric air only when mingled in certain proportions. The elements of food—albumen, casein, fibrin, starch, sugar, &c.—whether separated by chemical or mechanical processes, are not food, nor can they be so mixed or compounded by any chemical or mechanical process as to constitute food. They are

food only (let us say for the thousandth time) when compounded *organically*; and this can only be done in the process of vital growth. Extracting sap from maple trees, or from cane or sorghum, or from beets or parsneps (mark, you do not extract sugar, but sap!), and evaporating or boiling it until sugar is produced, is just the reverse of the process of organic growth. A person might as well extract his own blood, evaporate the watery portions, and call the residuum flesh, as to change an element of an organic product into sugar, and call it food. Moreover, sugar-making is in part a chemical process. To be purely mechanical, the operations of heat and atmospheric air should be excluded. Let Mr. Cameron try to make sugar in a vacuum without air or caloric! It is very true that the watery portions of many fruits and vegetables may be evaporated to a great extent without changing materially the organic arrangement of the alimentary principles, so that dried fruits, or dried vegetables, are properly food. But to separate a single element or alimentary principle, and call that food, is a different matter entirely.

A Day at Goguae Lake.

ON Monday morning, June 7, the patients of the Health Reform Institute prepared to spend the day at Goguae Lake. The day was all that could be wished—bright, dry, and warm—and our good doctor found himself importuned by all the more feeble patients for permission to join the party; with very few exceptions, the desired consent was given. Friend Dodge had proffered to furnish conveyances, and to him we were mainly indebted for the means of getting there and returning.

By 11 o'clock the last carriage load had arrived at the lake, having left but a corporal's guard at the Institute, and all proceeded to enjoy themselves according as their inclinations led them.

The lake and its surroundings are alike beautiful. It is about eight miles in circumference, and is almost entirely encircled by woods, which grow quite to the water's edge, and the water is as clear as that of a spring. We were rather too early for pond lilies, but the many buds coming up out of the water gave assurance of an abundant supply a little later in the season. The woods are as if especially made for picnic parties, and are full of wild flowers, which, in variety and coloring, will bear comparison with those of an Illinois prairie, or even of Florida itself.

On the lake, the Directors of the Institute

have provided a boat house, with boat, sail, and oars, complete, which are for the use of the patients without extra charge. (This is characteristic of the Institute; there are no "extras" to make the *real* cost of board and treatment double the nominal, and to annoy the patient at every little thing that is done for him. When he is told the rate, he may be assured that it includes all necessary attention, be he very sick or comparatively well, and everything essential to his comfort and convenience.) There was just wind enough to fill the sail, and the boat was kept busily engaged all day, carrying happy parties up and down the lake.

Robes and comforts had been provided for the more feeble patients to lie upon, when so inclined, and "rest hour" was observed by many the same as if we had been at home in the Institute. Soon afterward the well-known, old gray horse of the Institute was seen approaching, drawing after him a wagon load of eatables. The tables and benches which are kept in the boat house for this express purpose, were quickly brought out under the trees, and the former spread with a bountiful supply of tempting and "hygienic" food. After a blessing had been asked, all fell to with a will—as little like sick people as can well be imagined. We passed a vote of thanks to Mr. Dodge for his kindness in providing conveyances, and also tendered our thanks to the matron and helpers of the Institute for the excellent repast they had provided.

After dinner there was more gathering of flowers, more boat riding, &c., &c., and then all returned to the Institute in good season, delighted with the day's pleasure. Thanks to the watchful care of the doctors and matron, while many of the patients were quite feeble, and had not ventured on so prolonged a trip for a long time, not one took any, even temporary, injury, but all were enlivened and invigorated by our day at the lake.

A. B. B.

Health Institute.

"Nature Has Not Provided Remedies for Diseases."

NATURE *has not* provided remedies for diseases; although to many who view this question in a very superficial manner, and have been falsely educated, it may seem that she has; but when viewed from Nature's standpoint, we see it in quite a different light. So is it ever: if we wish to get clear ideas, we must adopt those based upon true principles—turn from the musty books as they flow

from the musty minds of men, to the simple laws of Nature as we find them stamped alike on mind and matter. Trace out these laws we find written on muscle, leaf, and shell, and we shall soon discover that Nature has not provided remedies for diseases.

It is impossible for Nature so to stultify herself, and such an assertion is a libel upon her Author, and a most pernicious doctrine to teach mankind.

"There is no law of cure in the universe." Sickness comes as the consequence of violated law, as its penalty. The Creator has not attached penalties as a punishment for violated law, and then foolishly provided remedies to do away with those penalties. Deity does not do things for the sake of undoing them. The laws of men, at best, are mere patchwork; but the laws of God are perfect and complete.

Effect is sure to follow cause in this world of ours—there is no *remedy*. Away with such nonsense! This idea of atonement for the transgression of physical law is a humbug, and has made fools of us long enough. Let us bury it in a common grave by the side of "drug medication."

There is *but one condition of cure*, and that is obedience to law. "Obey and live," is the ten commandments simmered down. "Cease to do evil, learn to do well," is the rule for all to follow. "Vitality once lost, can never be regained." This, I believe, is medical orthodoxy. Then all we can do is to make the best possible use of what remains. Nature has provided no panaceas; and those so-called hygienists who boast of having them, yet discard the laws of life, are false to the system. Let none such be trusted.

All the physician can do, is to supply the proper conditions, conditions without which the patient cannot live; and those physicians who boast of their "wonderful cures," unless this is what they mean, are either fools or knaves. Beware how you place such on guard over the sick. And those students who think all there is of health reform is to discard the use of drug medicines have yet to learn the a b c's of this noble system of the true healing art. We have to teach the people by preaching and practice, to abandon the use of drugs at the table, as well as at the bedside, and those professed friends who will not do this, are really our worst enemies.

We must war upon, and exterminate, the "castor," as well as the "saddle-bags," while those who wish to regain their health, must work for it. They cannot find it in mysterious drugs nor sweetened bitters. Nature has given out no "patent rights." The all-heal-

ing power is within themselves, and wise are they who see it, but

"Alas for him who never sees
The sunshine through his cypress trees!"

M. S. PERRY.

"*Eastern Hygieian Home.*"

What is Disease?

THAT which we know as *disease* is in reality but the effort of nature to overcome disease. Nature is always kindly, always benevolent, and is forever seeking to overcome the follies growing out of ignorance of mankind. Thus it is, that after a time of habitual violation in some way, or various ways, of the laws of our being, nature, to prevent the final catastrophe of death, steps in to compel a discontinuance of our vicious courses, and to demand the restoration of health. This creates a convulsion of the system, which manifests itself in accordance with the constitution of the patient, and the nature of the violations of law. Sometimes it is fever, sometimes dysentery, neuralgia, rheumatism, cholera, or one or more of the ills that flesh is heir to. But whatever it is, it is but the outward evidence of the struggle of nature to restore to health a constitution vitiated by habits of indulgence, more or less protracted, and more or less pernicious. It follows, then, as the night follows the day, that all *healing* efforts can have use and efficiency only as they work in harmony with, and aid, nature in this struggle to restore health.

It were better, of course, that every human being should live so perfectly in accordance with Nature's laws, that she would never have any penalties of *disease* to inflict. But in our condition of ignorance, this is as yet impossible; and the practical question is as to the best mode of aiding the benevolent efforts of nature to restore to health the system which ignorance of nature's laws has brought to disease and suffering.

In answering the question propounded above, it is well, and indeed necessary, to first inquire whether the same ignorance which entails disease in the first place, has not led to the employment of agencies to restore health, which may hurt instead of help, which, so far from aiding Nature, may really throw on her an additional burthen for disease to remove. We have no hesitation in saying that such is the fact—a fact unfortunately as broad as humanity, and covering the whole earth, for heretofore, as far back as history takes us, and among all people, NAUSEOUS DRUGS taken into the system have been the chief agencies resorted to to restore health.

Fortunately, in this modern, utilitarian age, the question, "What shall I do to be saved?" is taking a practical shape, and mankind are gradually awaking to the conviction, which experience, if not philosophy alone, should long ago have taught them, that there is no healing power in *drugs*, nor in remedies so administered. And, having in them no healing agency, thrust into the system, they are positively pernicious and hurtful, and they, instead of disease, are responsible for a very large share of the multitudes of premature deaths constantly occurring. We say philosophy, alone, is sufficient to teach us. There is no harmony between the ends sought and the means employed. Drugs are either entirely neutral (or nothing) in the system, or else must create, by their poisonous qualities, another disease. Their *operation*, as it is called, is simply, and always, the manifestation of another disease created by themselves. They cannot, and do not, touch the original difficulty. They only create a new war among the members, and throw a second enemy in the camp, where there was but one before; and if the patient escapes with his life, it is only to encounter a long struggle with the drugs that have poisoned the system, for a complete restoration to health. "Throw physic to the dogs," said Shakspeare, a remark showing much regard for mankind, but very little for the canine race. But the world learns by *experience*, not *philosophy*; and, fortunately, we have enough of the records of this experience, at the hands of intelligent and honest physicians, whose consciences have compelled them to "bear their testimony" to awaken the most sluggish people. A volume larger than the Holy Writ could be filled with such testimony from the mouths of the ablest practitioners.—*Church Union*.

Pure Air.

How important the pure, free, sweet air of heaven to invigorate the system, promote health, and purify the blood. Without it, we cannot long enjoy firm health. The ample provision which our wise and kind Creator has made for us to have it, indicates its utility and necessity. It is to be deeply regretted that so few understand and appreciate its value, that so many sicken, droop, and die, for want of it, when often it could be had and enjoyed at so small an expense.

With those who could as easily have pure air to inhale as the impure and vitiated, the neglect seems highly criminal. Poorly-ventilated dwellings are the legitimate cause of much suffering; certainly in sick rooms, and in small

and crowded sleeping apartments. To admit "night air" here, more than what merely forces its way through the cracks and crevices, some think hazardous to health. But neither chance nor a mysterious Providence holds in reserve for use by night the air of day. We had better, then, have that which is good and free, than to be put on an allowance of that which is infected by being respired again and again, and from exhalations from the skin.

Cleanliness and good order in sleeping rooms, with suitable ventilation, are blessings to be prized by those who seek sound sleep, sweet rest, and refreshed energies. This is a good season of the year to commence letting the air play in freedom here, if we never have before. Pure air. It is our friend. It is, in an important sense, our life. For we can live but a few moments without air; and the purer it is, the better. But, to have pure air in our dwellings, cellars need attention. Here may be found air-infecting substances, decaying vegetables, and decomposing matter, causing gaseous poisons to ascend and pervade, more or less, the whole house, for want of neatness and free ventilation.

But with some there is an inexcusable neglect of their privies. Who can enter them without feeling his senses shocked, and a revolt of nature at once. It is a punishment to be found there. The most noxious and poison effluvia fills the atmosphere all around them. They are a nuisance to the premises. It is as impossible to inhale a breath of pure air contiguous to them as it would be to find an ounce of healthful meat in the body of that foul scavenger of earth, the swine. Proper and timely cleansing, with the use of disinfectants, and men would be amply rewarded, unless a little time and expense are of more value than good air and grateful senses.

Let us then have the pure air in and around our dwellings, and let us breathe fully, freely, and deeply, of it, and feel the gratitude we should to our Creator for it, "for in him we live, and move, and have our being."

A. S. HUTCHINS.

ABOUT two hundred and sixty hogs, already dressed, were recently seized at the Hudson River Depot, by the Sanitary Inspector, and sent to the rendering dock, and an examination had, showing that they were all more or less diseased. Over four hundred carcasses came in the same lot, and it is believed that the rest of them have been thrust upon the market.

A KNAVE discovered is the greatest fool.

To Correspondents.

MISS A. W., Illinois: The symptoms you give indicate that torpidity of the liver is one of the chief causes of your difficulty, involving, perhaps, the kidneys. You should avoid overtaxation, especially just previous to the menstrual period, and live carefully in every respect. For treatment, take shallow sitz baths three times per week, and wear the wet girdle a portion of the time. Avoid salt, sugar, and other condiments, as far as possible.

G. H. P., Georgia: The limb, and the muscles of the left side, from long disuse, have become incapable of natural action. You should, little by little, restore tone to the muscles by exercise, such as light gymnastics, hand rubbing, &c. An occasional shower or spray bath upon the parts would be beneficial.

E. C. C., Iowa: Your deafness is caused by a scrofulous condition of the system, and may, or may not, be curable. We have successfully treated many such cases, when under our own care. The treatment must be constitutional, having for its object the purification of the general system. Foot baths and sitz baths, for a short time, and occasional packs, will be useful to eliminate impurities, and determine the blood from the head to the surface and the extremities. The galvanic battery is not a safe appliance in the hands of an unskilled operator, especially for affections of the head.

E. O. H. writes from Wisconsin:

Dr. Lay: Please prescribe through the REFORMER for the following case: Running at the eyes and nose, especially in cold weather. Occasional sore throat, and frequent itching in the throat near the opening of the nasal passages. Rubbing with the root of the tongue, and hawking, causes bloody expectoration. Cold feet, except when the weather is warm. Dull pain in the right side occasionally, and sometimes under the shoulder blade. Voracious appetite; can eat, "throw it up," and then eat again. Eyes becoming quite weak. Eat two meals a day, and perform daily labor on a farm. Have eaten very little butter or flesh-meat for three years. Bathe once a week.

This is a very bad case of catarrh, with dyspepsia and liver complaint. Treatment should consist of fomentations over the liver, deep sitz baths, and occasional packs. You should by all means go to a good Cure, and make it your chief business to get well.

G. D. B., New York: There may be circumstances where very aged persons would do well not to entirely discontinue the use of

flesh, &c., or, at least, to proceed very cautiously. As a general rule, however, a fruit, grain, and vegetable diet, is better for all classes, than a flesh or mixed diet.

Mrs. F. C. S. writes:

Please inform me through the REFORMER what to do for a child ten months old who has frequent gatherings in the head, which discharge at the ears. Should they be cleansed with a syringe? If so, what with, and how often?

The ears should be cleansed with injections of tepid soft water, as often as the circumstances seem to demand. A little castile soap may be used occasionally. By careful attention to diet and the general health, the difficulty may be outgrown.

Mrs. M. A. W., Vermont: There is no remedy for your difficulties, so long as you continue the use of fine flour, grease, pickles, fat pork, cakes, pies, &c. They are the chief causes of your trouble, and when you make up your mind to let these alone, perhaps you may be helped—certainly not before.

A. T. M.: Your deafness is a natural consequence, or rather, accompaniment, of your consumptive tendencies, and is of a catarrhal nature. The treatment should be of a character to induce thorough action of the excretories, the skin, liver, &c. Dripping sheet, hand rubbing, &c., accompanied by light exercise in the open air, and especially in the sunlight, would be beneficial in your case.

B. B., of Virginia, and others: The two-meal system, properly carried out, is best for all classes, farmers not excepted. As farmers generally labor from daylight till after dark, it may be advisable in some cases to take a light supper, if dinner be eaten at 12 o'clock. The whole thing, labor and all, is not strictly hygienic, however, and the better way is to labor more temperately, and eat accordingly.

2. There is a radical difference between the digestive apparatus of cattle and that of man; and the habits of one are no guide for the other. Further than this, domestic animals are not in a state of nature, and therefore their *normal* instincts are not always easy to be ascertained.

S. D. S., Michigan: Teething children may be relieved by rubbing the inflamed gums with ice. It is also well to allow them to bite hard substances; and when the teeth are nearly through, the operation may be forwarded by pressing upon the gums with a silver spoon until the tooth is met.

J. N. S.: The effects of tonics, &c., will be explained in the next REFORMER, as we

have not space in this department to devote to it.

J. S., Ontario: Dr. Trall's new work is not yet published.

Dr. Lay: Will you please inform us, 1. Whether hard and soft water are equally rendered injurious by being conveyed in lead pipe, or having lead pipe stand in it? 2. Is the hard water more apt to coat over the pipe than soft, thus preventing the action of the water on the pipe? or, 3. Will soft water form a coating on the pipe if it contains an amount of mineral substance, say iron, or other foreign substances? 4. May we know by the looks of the pipe, or water, if the pipe is poisoning the water? A. S. H.

1. They are both rendered injurious by it. 2. No. 3. No. 4. Sometimes we may; but not always. Hard water is unfit to be used, whether running through lead pipe or not, and much more so by coming in contact with lead; and all water is rendered poisonous by coming in contact with it. We would say, for the benefit of our readers, that lead pipe can now be obtained which is lined with block tin, thus preventing the water from coming in contact with the lead, and keeping it perfectly pure. Pipe can also be obtained made entirely from block tin.

G. W. W. writes from Ohio:

Ed. Health Reformer: Will you please prescribe for the following case? The patient, who is a young man, and claims to be a health reformer, is suffering with dyspepsia in all its protean forms. He eats some graham bread, adopts the two-meal system, abstains from pork, but freely partakes of nearly all the abominations of modern cookery. His meat is usually fried in butter; his vegetables seasoned with salt, butter or cream. He daily eats cream with the sourest fruits; pays no attention to variety or the kinds of food at the same meal; totally disregards the laws of sleep, ventilation, rest, social relations, bathing, dress, saving nervous power, &c.; sleeps on feathers, and uses hard water. He has a sour, unsocial disposition, an irritable and violent temper, which he cultivates instead of trying to control. He boldly says that he has no desire to reform himself, or to gain self control over his temper, and that when he commits an act he does not consider the right or wrong of it. He prides himself on his general ignorance, and refuses to accept of advice in regard to his health or any other subject. What can be done for him?

We are almost tempted to say, with one of old: "He is joined to his idols; let him alone." There is certainly no use in prescribing for one who refuses to accept advice, and prides himself on his ignorance.

SORROWS are like tempest clouds; in the distance they look black, but when above us, scarcely gray.

How Burgundy is Made.

GOOD Burgundy has body. It is a generous wine. How it gets "body" is described by Mr. W. J. Flagg, in his recent book published by the Harpers. He says:

There is a mode of rousing up the slackening process, and at the same time bringing other skins and seeds which have settled to the bottom in contact with the new-made alcohol, so that the latter may combine with the coloring matter they contain. This consists in stirring up the whole mass from bottom to top. It is done twice during the process of fermentation. It needs a good hour's hard work each time. It is done by men. It takes four men to do it well. They all strip naked—naked as Adam when he was good—and then they go in—into the wine vat—chin deep they go in, and there, with feet and hands, fingers and toes, turn over, stir about, and mix the liquid that was getting clear with the pomace that was depositing itself, and

"Make the gruel thick and slab,
And like a hell-broth boil and bubble."

The nice, sweet Bordelais man only puts his foot in it; but the Burgundian does the whole figure. It is done to give the wine a full body. They call it fermenting on the skin. Nor is the custom confined to Burgundy alone, or France alone. * * * Stirring up with poles they tried, but the warmth of the human body was wanting, and the result, they say, was not good. Besides, it was hard work.

At the house of La Tour, in Haut Medoc, Mr. Flagg saw wine made as follows:

A pile of grapes, ready stemmed, was heaped in conical form on the pressoir (a large, shallow box), and five or six men, with trousers rolled above the knees, were trotting about in a circle, trampling the pile under foot, beginning at the outer circumference, and gradually contracting their circuit till they meet in the middle, and on the top of the cone. This they call *fouler a pied* (crushing with the feet). There might be a cleaner way of doing the thing; I don't think there could be a fouler. * * * I inquired of the workmen if they washed their feet before trampling the grapes, and was told they did not. One of them enlightened my ignorance by explaining that wine had the power to fling off all impurities, so that it was of no sort of consequence how free they made with it.

HE who oppresses honesty never had any.

DR. TRALL'S
Special Department.

A Raid on Hygiene.

PHILOSOPHERS, Philanthropists, Reformers of all persuasions, and Physicians of all schools, have expended much talent in teaching the people Hygiene, according to their respective lights; but now, for the first time in human history, we have an attempt to write hygiene down. We suspect the redoubtable champion of anti-hygiene will find a hard road to travel; but his flounderings are amusing, if not instructive. With this prelude flourish we approach the subject.

In *Appleton's Journal of Popular Literature, Science, and Art*, for June 26, 1869, is the first of a series of articles on "Popular Fallacies Concerning Hygiene," by George M. Beard, M. D. Article No. 1 is entitled, "Dietetical Fallacies." We know not by what technicality to characterize it. It presents no argument. It gives no logic. It quotes no facts. It states no principles. It does not try to reason. It only asserts and misrepresents. It seems to be a sort of rant against Vegetarianism, combined with a splurge in favor of unlimited eating. *Per se* the article is unworthy of criticism. *De facto* it is beneath contempt. It is not, therefore, *what* it is, but *where* it is, that induces us to notice it.

Appleton's Journal has a large circulation. It professes to take high ground as an educational and literary periodical. Its influence cannot but be great on the opinions and habits of many of its numerous readers; hence errors on the incalculably important subject of Hygiene, however absurdly uttered, through its columns, must of necessity have a disastrous influence.

We have been obliged to notice that nearly every daily newspaper, weekly journal, and monthly magazine, which has been started in New York, Philadelphia, or Boston, within the last twenty years, has sought popularity and patronage by pandering to the prejudices and depraved appetences of the masses. Perhaps this is the only way to make the business pay; and so fashion and habit are made the standards of truth, as Olive Logan makes them the criterion of propriety in dress. On the Temperance question, the Dress question, the Tobacco question, the Diet question, the Medical question, and all of the progressive and reformatory problems of the day, new literary aspirants for popular favor almost in-

variably either take both sides, so as to please everybody a little and offend nobody very much, or else go dead against the reform, so as to be with the majority.

Dr. Beard, so far as we can judge from his opening, seems to have been employed to write the health reformers down. Perhaps, however, his poison carries its own antidote; for, like most unfledged scribblers who seek distinction and bread and butter at penny-aligning, he so overdoes his part, so exaggerates his statements and fabricates his history, that the half-critical reader can hardly fail to see that his whole performance is merely for effect—theatrical. Reduced to a logical review, his article is a tissue of baseless assumptions and flagrant misrepresentations. Some of his assertions are positive falsehoods, and some of his rhetoric so childishly extravagant that we wonder how the publisher could admit them without modifying and pruning, even if he wished to kill off the health reformers, and annihilate Hygiene altogether; for there is such a thing as telling a lie so preposterously as to destroy its vitality. "Keep probability in view."

After asserting the general proposition that most persons eat too little, both in quantity and variety (where in the name of a cold potato has the doctor lived?), he tells us that when we do not eat enough, "disease now steps in, attacks and carries by force some important citadel of the body, and death follows."

Such language may be termed figurative, or bosh, or highfalutin, or twaddle, or what any one pleases. In either sense, there is no sense in it; but it demonstrates one thing beyond all controversy, and that is, that Dr. Beard does not know what disease is. Suppose a person should bleed to death, of a wound received in the jugular vein? Would it not be ridiculously silly for a physician to talk of disease attacking the citadel of life? Not a whit less absurd is it for Dr. Beard, when a person dies of starvation, to blarney about disease "stepping in," &c.

The next proposition the doctor presents is in the following words: "In the second place, it is a fallacy to suppose that vegetable food is healthier and easier of digestion than animal." For "healthier" we presume he means more wholesome; and by "digestion" he probably means solution in the stomach. These are the only senses in which his language has any meaning at all, and in these senses, all there is to say will not require many words. Some articles of animal food are more readily dissolved in the stomach than some articles of vegetable food are; but

vice versa is also true. Some articles of vegetable food are "healthier" and "easier" than some articles of animal food.

Dr. Beard asserts, thirdly: "Comparative anatomy, physiology, experience, our natural appetites, and the history of the world, all show us that man should have a mixed diet of flesh, fish, fruits, and vegetables." This is not true; indeed, every naturalist who has studied comparative anatomy in reference to this question, without a single exception, has declared that man is naturally frugivorous.

Dr. Beard says, again: "The truth is, that vegetables—potatoes, turnips, carrots, etc.—are not only less digestible than fresh beef and mutton, but they are also less nutritious. Perhaps Dr. Beard does as well as he knows, in placing the most nutritious kinds of animal food in comparison with the least nutritious kinds of vegetable food, and saying nothing about the most nutritious kinds of vegetable food. We take pleasure, therefore, in being able to inform Dr. Beard that Vegetarians regard the grains as the most nutritious kinds of vegetable food, and that all chemists and physicians of respectability in the scientific world agree that grains—wheat, rye, corn, &c.—are three or four times as nutritious as the best animal food.

Dr. Beard gives the readers of *Appleton* the following rule of practical dietetics: "Each individual must find out, for himself, what he can indulge in, and what he must forego." It is perfectly clear that if each individual cannot find out for himself, he can never learn anything of Dr. Beard. A physician ought to know what is the proper food, drink, and air, for a human being, as much as to know what is the proper medicine. Wonder if the doctor ever tells his patient that he must find out, for himself, what medicine he may take, and what he can't bear?

The following passage is grandiloquently startling: "Hideous doctrines have been taught on this subject;" whereat we can only marvel exceedingly and say nothing.

Then the doctor astonishes us thus: "Another fallacy in regard to diet is to suppose that the natural appetite is not the best guide as to the quantity and quality of our food." Now, we must be permitted to say, in all possible seriousness, that we have never known nor heard of this position being doubted. All Health Reformers, all Vegetarians, and all other persons, "literate and illiterate," so far as we have ever read, thought, or imagined, have supposed, and do suppose, that the natural appetite is the best guide. The only difficulty is in finding the natural appetite.

Dr. Beard concludes his "Fallacies" with

a postulate that almost rivals some of the best things in Josh Billings: "My advice is emphatic and clear: Let there be as generous, agreeable, and attractive, a variety at each meal as we can afford." This is a palpable hit. No doubt the worthy medical gentleman is one of "them sort" popularly denominated "good feeders;" and, like the smoking guzzler whose "natural appetite" demands twenty glasses and ten pipes per day, and wonders how any one (except women and children) can live and be happy without lager and tobacco, mistakes his own morbid cravings for the promptings of nature. But, while his rule may work admirably for the extremely poor, we do not see its practicability when applied to the extremely rich. The rich can afford quantity and variety enough—and some of them do—to make eating the principal business of life. Only fancy some Stewart, whose income is \$10,000 a day, ransacking all the city markets to set as *much* of a table as he can afford. If Mr. Stewart should follow the doctor's advice, he would soon cease to be a millionaire. But we happen to know that A. T. Stewart is extremely simple in his dietetic habits, both as to quantity and variety. If the rich should adopt Dr. Beard's "emphatic and clear" advice, they would monopolize nearly all the quantity and variety of victuals in the land, leaving little or nothing to the poor. This might be very pleasant for Dr. Beard and the rich folks for a season; but if the consumers are going to turn cormorants, and, like an army of Utah grasshoppers, devour everything in exercising their "natural appetites," what will become of the producers? We pause in terrible trepidation while awaiting the next article from the doctor's pen.

Summer Mortality.

WE presume the New York Academy of Medicine is a fair sample of all the academies of medicine in the world whose members are physicians of the drug school. We have never known a question introduced into the New York Academy, for discussion, that did not elicit the most contradictory opinions. If the people knew how discordant were their notions, as uttered in their private conclaves, they would be still more averse to swallowing their incongruous drugs as administered at the bedside.

At a late meeting of the New York Academy of Medicine, Dr. Stephen Rogers read a paper on "Summer Mortality." After remarking that there is always a marked and startling increase of mortality in large cities during the hot seasons of the year, he pre-

sented statistics that, however true this might be in reference to New York, the contrary was true with regard to London and Paris. There the death rate was greatest in the cold season. In discussing the cause of this anomaly, the doctor could only assign the more sudden increase of temperature in this country as the cause of the excessive mortality in the hot season.

We think the doctor, as physicians of his school usually do, has overlooked the main point of the case. It is not the high nor the sudden changes of temperature of our cities that destroys so many lives in the summer months; it is the abominable manner in which children are fed. This is just as much worse in New York than it is in London or Paris as the mortality is greater. On the subject of feeding young children, American mothers and nurses seem to have lost all common sense. Children, infants, babies even, are stuffed with salt, grease, candies, and sweetcakes, till their stomachs and bowels inflame and mortify, and then they die. It is true that sudden increase of temperature and the hot season are exciting causes; but the essential cause—that which creates the predisposition, without which the exciting causes would be harmless—is the stuff they swallow in the shape of victuals.

In order to keep humanity cool during the hot weather, Dr. Rogers recommended "unlimited quantities of ice-water." We fear this experiment, if it should ever be tried, would only aggravate the mortality, and on this point we are glad to know that several members of the Academy entirely disagreed with Dr. Rogers.

Another Turkish Bath "Cure."

SUMNER W. BENNETT died in New York, a few days ago, at the age of sixty-one years. His history—though but another of many—so far as it relates to Hygieo-Therapy, is instructive. Fifteen years ago he was a "broken-down" invalid. He had suffered much of various diseases, for which he had been badly drugged, and, as usual under such circumstances, the consequences of bad diseases, and worse medicines, manifested themselves in dyspepsia, chronic rheumatism, and mercurial affections, to which was added the complication of "fever sores." In this condition he became our patient, and was under treatment most of the time for three years. At the commencement of the war, his health being then comparatively good, he went to South Carolina and engaged in active business, which he continued till the close of the war. Re-

turning then to New York, and thinking that a little more treatment might be beneficial, he went to a place where the Turkish bath had superseded the kind of Hygieo-Therapy formerly practiced there. He was persuaded to "try" the "vitalizing luxury" of being moderately cooked, under the assurance that it could not possibly harm anybody, and that it would answer all the purposes, and more too, of the processes of Hydropathy of every kind. He took several baths, and grew continually weak; but on being persuaded that the "vitalizing" would come eventually, he took several more. Finding his enfeebled muscles becoming paralyzed, he abandoned the Turkish concern, and came to Florence Heights in a desperate condition, execrating the treatment he had been deceived into submitting to, and applying epithets not complimentary to the parties who were running the humbug. As winter was approaching, and he had become extremely sensitive to cold, and in a kind of panic lest the Turkish bath had "finished" him, as he expressed it, he concluded to spend the winter in South Carolina or Florida. He did so; but, as he feared, the "curing" had exhausted his remaining vitality. He returned a short time since, in time to die among his friends and in the family circle. Now, there was no reason, aside from these overheating processes, misnamed Turkish baths, why Mr. Bennett should not have lived, in the enjoyment of comfortable health, for many years. We have the names and the histories of several who have been "vitalized" to death in the same way, which we shall publish occasionally, in order to keep the ghosts of their victims before the eyes of these ignorant or renegade Hygienists. We notice that one of the New York speculators advertises two grades of Turkish baths, one for the strong and another for the weak. This consists, we suppose, in heating all parties as much as they can bear short of immediate collapse, and is certainly an improvement, just as Homeopathic drugging is an improvement on Allopathic—the less the better.

Sugar Plums.

THE following news item, now going the rounds of the newspapers, is a text from which a long sermon might be profitably preached:

Sugar plums, rich food, wine, and beer, are among the things which the royal children in Prussia are never allowed to taste.

The reverse of this rule is the practice of the majority of Americans who have charge of children. One cannot travel anywhere in

this country, unless it be in the very sparsely populated districts, without seeing the children stuffed and gorged with candies and greasy sweetcakes. Some of them are eating these abominations one half of the time, and crying with the colic they occasion the other half.

We have often had occasion to say that no persons in the world feed and dress their children so unphysiologically, as do American mothers—a fact which sufficiently accounts for the greater mortality among them. In all other countries, and more especially the more intelligent classes, children are treated as children. Their parents, nurses, or guardians, treat them, in the matter of victuals, drink, and clothing, on the same common-sense plan that farmers do their cattle. But, in this country, while everybody seems to understand the laws of hygiene, as they apply to the raising of fine horses, blooded cattle, excellent sheep, lusty fowls, spirited dogs, and beautiful pigs, very few give the least attention to them as they apply to juvenile humanity. And the consequences are, while the breed of domestic animals improves, that of human beings deteriorates.

Scarlet Fever.

THE difficulty of educating the people into the exercise of their common sense in medical matters, is again illustrated in the following news item, which we clip from an exchange paper:

Samuel Palmer, of West Conover Township, Dauphin County, has within a week lost five children by scarlet fever.

That children should continue to perish, as it were in droves, all over the land, of a disease which is scarcely dangerous when properly treated, and seldom fatal when left to itself, in view of the fact that the land has been literally flooded with information concerning the better way, can only be accounted for on the supposition that the masses of the people are amazingly stupid, or that the influence of the medical profession is very powerful. We incline to the latter view of the case.

Physicians of all schools, and physicians in many parts of this country and in Europe, have treated scarletina, in all its forms, and when sporadic, endemic, and epidemic, successfully with water as the only remedial agent; and they have given their testimony to the world in medical books and journals, and in the newspapers of the day. Moreover, a hundred hygienic physicians, and a still greater number of non-professional persons who have been enlightened by the health-re-

form publications of the last twenty years, have treated scores and hundreds of cases without losing a patient, and have added their testimony to the superiority of "Hygienic vs. Drug Medication." Nevertheless the killing goes on as though nothing had happened. The epidemic prevails here and there, the doctors drug and dose, the children die and are buried, and—well, the deeper the ignorance, the more stolid the prejudice, the more bigoted and selfish the doctors, and the blinder the people, the more health reformers have to do, that's all.

Answers to Correspondents.

COLD—CLOTHING—COMBE.—A. P.: "R. T. Trall, M. D., *Dear Sir*: 1. In a severe cold, attended with violent cough and expectoration of thick, yellow matter, is there not disorganization, more or less, of the substance of the lungs? 2. And if so, when the person recovers from the cold, do the lungs repair themselves like common flesh? 3. What is the best treatment for such a cold? 4. What material is best for consumptives to wear next the skin in this climate (latitude 44° north) at the different seasons of the year, and why best? 5. George Combe, in his 'Natural Philosophy,' in showing the adaptation of our various faculties to external nature, says that man, 'in aid of his stomach, has received carnivorous teeth; and in order to complete the system of arrangements, he has received a propensity having a specific organ, prompting him to kill animals that he may eat them. In accordance with these endowments, animals to be killed and eaten are presented to him in abundance by the Creator.' What do you say to all this?"

1. Yes. 2. Yes. 3. There is nothing peculiar in treating such a cold. All colds should be treated with warm, tepid, cool, or cold, bathing, as the patient is more or less feverish. 4. Cotton or linen. You will find the reasons in our published works. This is the place for answering questions, not for writing treatises. 5. We are of the opinion that Mr. Combe was mistaken, both in his premises and conclusions.

THE TRUE HEALING ART.—A. C. A.: This work is out of print. If any one has a spare copy, and will send it to us, we will send him one dollar by return mail. A new edition will be issued, soon as we can furnish the printer with a copy.

MAGNETISM AND NERVOUS DEBILITY.—B. B.: We have known many cases in which the symptoms were greatly relieved by mag-

netic and electrical manipulations; but to effect a radical cure requires other Hygienic resources.

PLEURALGIA.—E. M. A.: Your case is not pleurisy, as your doctor calls it, but *pleuralgia*, or "stitch in the side." Pleurisy is a febrile and inflammatory disease, but *pleuralgia* is merely a spasmodic affection of the muscles. Apply hot fomentations to relieve the pain, and remove the cause by attention to the general health. Probably you have that almost universal ailment, the liver complaint.

ENLARGEMENT OF THE LIVER.—Mrs. O. A. D.: "Dr. Trall: My son, six years of age, has a great weakness in the lower extremities; the right leg is partially paralyzed, so that he is unable to bear his weight upon it. Two years ago he had scarlet fever very bad, and took a large quantity of medicine, and several doses of calomel and opium. What is the disease, and what the remedy?"

The child has enlargement of the liver, probably induced by the calomel and opium. He should have a wet-sheet pack occasionally, wear the wet girdle a part of the time, and adopt a strictly fruit and farinaceous diet.

INCIPIENT CANCER.—P. M. S.: All cancerous tumors are very much alike in their commencement, but become distinctive in the process of growth. In most cases, nothing is to be observed at first except a hard tubercle, more or less movable under the skin. In the early stage, a majority of them can be destroyed by the simple process of freezing. In their more advanced stages, cauterization is the proper treatment. The case you describe could doubtless be arrested by half a dozen refrigerations.

REVELENTA.—F. C. S.: This is one of the multitudinous humbugs that people so delight to run after. It was first introduced to the public, under the name of "Ervalanta," about twenty-five years ago, and had an extensive sale for two or three years, when it ceased to be fashionable—perhaps because it had cured everybody.

LOSS OF VOICE.—J. M. S.: This is not a dangerous affection unless it is the consequence of ulceration of the larynx. When it supervenes on any form of consumption, it is generally a fatal prognostic. We cannot indicate the treatment without knowing all the particulars.

CHOLERA INFANTUM.—E. S.: The infallible preventives are pure air and wholesome food. Children should be allowed to use

good, ripe fruits, freely, but only at meals, and without cream or sugar.

ICE WATER.—C. O. C.: Very cold water is not so wholesome to drink as that which is only moderately cool, nor does it allay thirst so well. Everything that is added to water detracts from its value as a beverage. This is a law of nature to which there is no exception.

LOW SPIRITS.—L. D. S.: What is called a "bilious condition of the system" (and this means thick, viscid, and impure blood), is the cause of your depressed bodily feelings and despondent state of mind. Eliminate the bile from the blood, so that the circulation may be restored to the superficial capillary vessels; the internal congestion will then be removed, and your former "fine flow of spirits" regained.

HYDROPATHY IN ENGLAND.—O. D.: We do not know of any place in the "old country" where the Hygienic system is practiced as we understand it. The "Cures" there are "Watering Places," where Hydropathy, Homeopathy, Turkish baths, and "restauration" diet are promiscuously jumbled.

FEED FOR FARMERS.—H. L. F.: "Please answer if it is better for a farmer in health to eat two meals a day at 7 A. M. and 12 M., in preference to three meals? It seems too long to go from noon till 7 o'clock the next morning."

We think it is. But much depends on what his three meals would consist of. The best times for his meals are about 8 A. M., and 2 to 3 P. M.

A WORTHY Quaker thus wrote: "I expect to pass through this world but once. If, therefore, there be any kindness I can show, or any good thing I can do to any fellow human being, let me do it now. Let me not defer or neglect it, for I will not pass this way again."

A MAN'S trials cannot be insufferable if he lives to talk about them.

TO PERSEVERE in one's duty and be silent, is the best answer to calumny.

DISCRETION in speech is greater and better than eloquence.

SOME faults indulged are little thieves that let in greater.

SPEAK well of your friend; of your enemy say nothing.

NEVER greet sin with the kid glove of friendship.

Items for the Month.

☞ Renewals are still coming in at a rapid rate. We therefore extend the time for delinquents another month, to give all a fair warning. Look at your credits, and be sure that the figures on your pasters exceed 4-2. We don't want to part with old friends, especially if they have the same desire with regard to us.

SPECIMEN COPIES.—We have still a large supply of the July number for gratuitous distribution. Send the money for the postage, simply, and we will still supply canvassers, and the friends of reform everywhere. Several correspondents have pronounced the July number just the thing to introduce in new places, with which we fully agree.

☞ The *Peninsular Herald*, one of our best and spiciest temperance exchanges, published at Detroit, thus speaks kindly of our journal:

The *Health Reformer*, published at Battle Creek, Mich., is one of the most valuable magazines that comes to our office. It teaches you how to cure the sick without medicine, and how to keep yourself from getting sick. Send for it. It only costs \$1.00 per year.

☞ The following paragraph from an exchange shows that our homeopathic friends are progressive in the diet question as well as in the matter of drug poisoning:

"The Massachusetts Homeopathic Medical Society declare against the use of butter, which, they aver, 'contains no element of food required by the human system.'"

They fail to see, however, that the question of the elements of food does not fairly settle the matter. Although butter may, and perhaps does, contain some of the elements of food, it is not *itself* food, and this is the reason why its use should be discontinued.

INSULT TO INJURY.—The agent for "Old London Dock Gin" requests us to advertise the miserable stuff—which constitutes the injury—and then adds the insult by asking us to take pay in gin! We understand the proposal is being made to all the editors in the Union, and doubtless it will take among the whisky-lovers. We hereby inform the toddy-makers that they may save their postage, as their beverages will not be advertised by us, either by the undisguised titles of rum, gin, and brandy, or under the name of "biters," "tonics," &c.

☞ One of our agricultural exchanges gives minute directions for the making of cheese out of "tainted milk," that is, milk far advanced in the rotting process. The editor thinks that by following the directions given, the operator may

succeed in making "a fair cheese—one that will suit many palates." It would probably be swallowed with avidity by those who like tainted meat, and "washed down," perhaps, with a pint of ale or porter.

POISON.—An esteemed correspondent writes us that the medical profession in his neighborhood teach that poison exists in all food, and in pure water. He asks us to give the reason why this doctrine is false. We would prefer to put the shoe on the other foot, and ask the "profession" why it is *true*. Those who make such statements must prove them, and until they do, we shall insist that good food and pure water *do not* contain poison.

THE WESTERN RURAL.—This ably-conducted agricultural journal is one of the best of its class now published. It is a large, eight-page weekly, filled with valuable matter, and having, it is claimed, the widest circulation of any agricultural paper in the West. Published at Detroit and Chicago, by H. N. F. Lewis, at \$2.00 per year.

HEALTH COLONY.—C. H. Monroe, of Waller, Ohio, writes that the health colony in that place is in a growing condition. Occasional additions are being made to the number of colonists, and a steam saw mill is in process of erection, for the purpose of furnishing lumber for the use of the new-comers. Nearly all the members take the REFORMER, and, we may add, pay for it too.

☞ The editor of the Mt. Pleasant (Iowa) *Journal* aptly says: "After sitting in one of our miserably-ventilated churches for half an hour, we fully agree with the minister in addressing his 'dying congregation.'"

WEBSTER'S UNABRIDGED—ILLUSTRATED.—In all the essential points of a good dictionary, in the amplitude and selectness of its vocabulary, in the fullness and perspicacity of its definitions, in its orthoepy and (*cum grano salis*) its orthography, in its new and trustworthy etymologies, in the elaborate, but not too learned, treatises of its Introduction, in its carefully-prepared and valuable appendices,—briefly, in its general accuracy, completeness, and practical utility,—the work is one which *none who read or write can henceforth afford to dispense with.*—*Atlantic Monthly*.

☞ While on a recent visit to New York city we had the privilege of stopping at the "Institute" at 15 Laight street, and forming an acquaintance with its proprietors, Drs. Wood and Holbrook, the latter gentleman being also editor of the *Herald of Health*. We were glad to find a place in New York where we could have hygienic fare, and we would recommend our friends, when visiting that city, to give them a call.

H. S. LAY, M. D.

MANY a woman would rather have a tubercle in her lungs than a pimple on her nose.