The Health Reformer.

OUR PHYSICIAN, NATURE: OBEY AND LIVE.

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OVER AND OVER AGAIN.

OVER and over again,
No matter which way I turn,
I always find in the book of life
Some lessons I have to learn.
I must take my turn at the mill,
I must grind out the golden grain,
I must work at my task with a resolute will
Over and over again.

We cannot measure the need
Of even the tiniest flower,
Nor check the flow of the golden sands
That run through a single hour.
But the morning dew must fall;
And the sun and the summer rain
Must do their part and perform it all
Over and over again.

Over and over again
The brook through the meadow flows,
And over and over again
The ponderous mill wheel goes.
Once doing will not suffice,
Though doing be not in vain;
And a blessing, failing us once or twice,
May come if we try again.

The path that has once been trod
Is never so rough to our feet;
And a lesson we once have learned
Is never so hard to repeat.
Though sorrowful tears may fall,
And the heart to its depth be riven
With storm and tempest, we need them all
To render us meet for Heaven.

—*Sel.*

A "PLUCKY" CHEMIST.—At Preston, England, Mr. Edward Foster, a chemist and druggist, has been summoned twelve consecutive times at the police court for not having his child vaccinated, and has paid heavy fines for not obeying the law in this particular. On each occasion he has addressed the bench in support of his conduct, opposing vaccination, and he asserts that he intends to resist to the end of the chapter.

SENTIMENTS of friendship which flow from the heart cannot be frozen in adversity.

How an M. D. and his Medicine Lost Credit.

TO DIE without a doctor would be in the eyes of a community about as bad as for a Catholic to die without a priest, and the neighborhood gossip about it would be far worse. But if the physician is called and administers his mixtures, and the patient lives even at the expense of a ruined constitution, the skill of the doctor and the virtues of his medicine are highly commended. But if the patient dies, it is charged to God's mysterious providence. The M. D. and his drugs lose none of their credit.

About a year since, an acquaintance of mine fell from a building twenty-five feet, so severely injuring his spine that his life was at once despaired of. His entire system, except his heart and lungs, seemed to be perfectly paralyzed below his neck. A physician was immediately summoned who commenced a course of treatment. His medicine was dissolved in a tumbler of water, to be given once in so many hours regularly. Dry rubbing with the hand was recommended, but no outward applications of water. The nurse was a reader of the HEALTH REFORMER, and had some knowledge of the health reform. He at once commenced a free use of water nights after the family had retired, and put the medicine into the washbowl. As the application of water brought relief, it gradually gained the confidence of the friends, until friends, physician, and neighbors, had almost implicit confidence in the management of the nurse.

The doctor made his regular visits, changing his medicine from time to time, not being unmindful to extol its virtues, in remarks like the following: "Working admirably!" "just as I expected!" &c., &c. The friends, notwithstanding they saw the relief obtained by the use of water, could n't help thinking that there was some hidden virtue in the medicine, as no one, they thought, could get well without "taking something." Finally a change in the nurse was made, then it became necessary to let it be known that the medicine was put into the washbowl instead of into the man's stomach, and this was wherein lay the hidden virtue so that with the use of water he improved physically.

But nurse No. 2 did not dare to run any risk. If the doctor left medicine, he should give it; for if he should happen to die, he could never

forgive himself. But a relative was convinced of the virtue of hygiene, and inasmuch as the medicine did not color the water, it could be turned out into the sink, and clear water placed in its stead, so the nurse could give the clear water without detecting the change. This was accordingly done, and the patient continued to improve under the faithful administering of the pure elixir of life and outward application of the same. One day, after the doctor had extolled his medicine, and fully explained to them the philosophy of its working on the human system, and how he would have died without it, he was quietly informed that the patient had taken none of it. The doctor was confounded. The friends trembled with fear. The nurse stood aghast, and when the neighbors heard of it, they knew not what to think. The washbowl and sink had been the receptacle for the precious drugs, but the patient had gradually improved. At one blow, the physician and his drugs lost all their credit, and the laws of nature and their Author had obtained it.

It is needless to add that the physician considered himself insulted, and left the house without ever returning to visit his patient again; but the patient continued to improve as before.

S. N. HASKELL.

Health.

THE scientific Dr. Trall defines health, "normal play of all the functions." The organs which are especially termed vital have a sensation peculiar to themselves—a sensibility of their own of which the mind does not take cognizance. The brain does not recognize blood in the heart, food in the stomach, air in the lungs, or bile in the liver.

Mrs. Ellis, an English author, exclaims, "Alas! alas! that English women ever found out that they had nerves."

How is it, then, that we hear so much complaint of palpitation of the heart, of painful sensation in the region of the liver, distress of various kinds in the stomach, and oppressed lungs? The fact is, many of our practices and habits are faulty, and compel the organs of the body to labor, instead of permitting them free and easy play. To illustrate, we will take the stomach, the organ whose function is to produce nourishment for all the organs of the body. Our strength and force keep up or fail in proportion as this function is perfectly or imperfectly performed, if the quality and quantity of food introduced into the stomach, and the time and manner of its introduction are uniformly right, all other habits being correct. This organ, in accomplishing its office, *plays*, and the brain perceives no unpleasant sensations in the head nor in any other part of the body. But, on the contrary, if the habits are of an opposite character, faulty generally, then comes on a train of disagreeable symptoms, with a vengeance, such as headache, backache, aching of the extremities, toothache, earache, catarrh, bronchitis, diarrhea, dysentery, colics, cramps, rheumatism, constipation, boils, piles, neuralgia, palsy, rashes, eruptions, sleeplessness, nervousness, despondency, and other ills and ailments. Some have acquired the habit of rapidly forcing the food into the stomach, eating a meal in five or ten minutes which should take at least thirty minutes to properly masticate.

The following, which we copy from a work of J. Pattison, M. D., F. R. M. S. L., shows the necessity of mastication and insalivation:

"Physiologists have proved that saliva is necessary to digestion, and without a sufficient quantity of it, the food cannot properly be digested or afford nourishment. I believe my uncle, the late Granville Sharpe Pattison, was the first to note this interesting fact; for when Professor of Surgery to the Andersonian University of Glasgow, some fifty years ago, he was called to see a condemned felon, who succeeded, after sentence of death had been pronounced, in cutting his throat, dividing the œsophagus (the tube by which the food passes from the mouth to the stomach). The prison surgeon, after securing the blood-vessels, had the prisoner fed by passing a tube into the œsophagus, and pouring soups, etc., through it into the stomach. This was of no avail; the man rapidly became weaker—indeed, was dying from starvation. My uncle, from his reputation and family position, was sent for, and on seeing the poor criminal, he observed the constant flow of saliva dropping from his mouth and wound. The thought struck him that saliva was necessary for digestion. He ordered it to be collected, and mixed with the man's food. A rapid improvement immediately took place; he gained flesh, and the wound rapidly healed. Unfortunately, in those days, justice was more severe than in these. No reprieve could be obtained, and the poor fellow, after being the means of proving a most important physiological truth, expiated his crime on the gallows."

P. M. LAMSON, M. D.

Health Institute.

Letter from a Patient.

DEAR DR. LAMSON: I am all alone this beautiful morning. I have been reading the REFORMER, and while reading it, I thought how I would like to see you, and tell you how much you had done for me at your health-giving home. I went there to be benefited. I went to learn all I could. Not being situated so as to stay long (not even long enough to receive much present good), it made it necessary for me to store away in my cranium all the good and useful ideas advanced by the physicians. I stored them away for future use, and have been trying to use the

knowledge I gained. The consequence is, I am much better in health myself, and have been the means of benefiting my family in many ways. I think I have saved in doctors' bills already as much as my expense at the Institute.

I am under obligations to thank you many times for the good you did me both in mind and body. I have not eaten a slice of bread and butter since I went to the Institute, and I drink no tea nor coffee. In fact, our whole family live *mostly* on hygienic food. I believe it is the best food in the world, and I also believe that if all who go to your home would try to profit by your practice and teaching, instead of grumbling, they would receive much greater benefit, and in a much shorter time than they generally do.

C. B.

Milwaukee.

A Neglected Duty.

DESPITE frequent homilies addressed by anxious parents to heedless children on the subject of health, and the increased attention given to health laws in these latter days, it is rare to find a person who looks upon the care of the body as a religious duty. As a matter of prudence, affecting only personal comfort, the preservation of physical vigor receives a certain reluctant recognition; but most people, indeed most Christians, never regard even willful neglect and exposure as sins, but, at the worst, as mistakes for which those who make them are accountable neither to God nor man. Their argument is, "May not one do what he will with his own? and if he chooses to risk health and take the possible suffering, who has a right to object?"

"Each man for himself," and "Let us eat and drink, for to-morrow we die"—these mottoes of selfishness and infidelity are unconsciously made the basis of this fallacy. But Christians who have learned the true meaning and worth of life ought to remember that a man is successful according to that which he is able to bestow upon the world, not according to that which he can get out of it, and that present pleasure is dearly bought at the sacrifice of future usefulness. Even on grounds of self-seeking, we ought to deny ourselves many indulgences, and eat, drink, sleep, and exercise, in such manner and under such conditions as may promote our physical welfare. But Christian duty has still higher and broader claims, and bids us train our bodies to such habits and protect them by such care as may enable us to expend strength upon others, and do the Lord's work effectively for the longest possible period. Moreover, the greediness which exposes health in order to seize present gratification, as if the Lord's storehouse and promise were worth less than man's own right hand, shows lack of faith. He who consciously overworks, discounting time and strength and opportunity, so far despairs of that which remains to the people of God.

There is urgent need of a more systematic enforcement by the pulpit and the press, and by Christians in every walk and relation of life, of the duty of preserving and attaining health. It is not common, it is almost unprecedented, to hear a sermon on this homely, practical subject. But the right care of tools is as much a necessity as the right use of them. Christian workmen cannot overlook the condition of the body without being derelict in regard to the soul. And it is not enough to avoid exposure; we ought to strengthen the native constitution by a continuous, methodical, intelligent application of all established hygienic laws. Christ should dwell in the mortal body, and we should honor the Divine Tenant by keeping it in good repair. —*Christian at Work.*

Diet.—No. 8.

BY MARY H. HEALD, M. D.

ONE great objection to the use of condiments of all kinds, is the fact that their introduction into food often awakens an unnatural, unhealthy appetite—one that cannot be readily controlled, thus creating a desire for more food than the system can appropriate, and burdening the entire digestive apparatus with the disposal of that which it does not need. This is one of the most serious troubles arising from their use; but although a large proportion of our people suffer in this way, some may attribute their deficient appetites to the same cause, while a third class owe their ever-varying caprices of appetite to it.

One of the worst condiments in common use is sugar—not the worst, in and of itself, but worst in its effects, because of the vast quantities consumed. It disturbs and clogs the circulation, and is a fruitful source of indigestion and of diseases of the liver. Dentists attribute the bad teeth of our people largely to its free use, not through its contact with them when the food is in the mouth, but through unhealthy stomachs, and the bad quality of blood from which the teeth obtain their nutriment, caused by the amount of sugar taken in and with the food. How many infantile tooth-aches and other physical ailments might be averted by withholding sugar-plums, sweet-cakes, and other pernicious articles, from little children. Many persons will be surprised to learn that there are numbers of families in this country who never use sugar in any form, excepting as it may be found in the natural state of the fruit, grain, or vegetable, composing the daily food of such family. If fruit-growers had been more numerous and more zealous in their work; had men devoted the time to horticulture which has been needlessly expended in raising cattle and stock, we might, by this time, have been in possession of excellent

qualities of fruit throughout the country, instead of having so many harsh, sour, blighted, or insufficient, crops of various kinds of the same. As we become more and more interested in hygiene, we will devote more time and thought to horticulture, and excellent fruit will be the rule instead of the exception; there will not then be the same temptation to housekeepers to use inferior articles of diet, such as unripe currants or gooseberries, pieplant and cranberries, or other articles that seem to demand the addition of sugar. Strict hygienists who use these articles, merely add them in very small quantities to sweet fruits, and so avoid the use of sugar.

But we not only object to the use of meats, gravies, and oily food, spices and condiments, concentrated articles of diet, such as fine flour and sugar, but, also to the use of very pungent articles, such as horse-radish and peppers, and too coarse, rank, crude forms of vegetable growth, such as onions, radishes, cabbage, &c. These are not well suited to the digestive apparatus of man. His organization is too fine to lead him to choose such a diet, unless the true flavors of such articles are partially concealed by dressings, or he is forced to it by the exigencies of his situation. They make good food for creatures with stronger, coarser digestive organs, but are not best suited to man's wants.

We would not divide all the various articles now used as food into two great classes, saying all upon this side of the line are wholesome; all on that side unwholesome; we do not claim that meat, eggs, butter, &c., are without nutrient properties, and that all food not derived from the animal kingdom is good; but we do think that the natural and proper food for man is derived from the vegetable kingdom, that the very best food is to be found in its finer products, such as the best of wheat and the choicest fruits; that there is, however, gradation here as elsewhere; that he is wisest whose instincts are truest, and who combines the knowledge to be gained from these with that which results from observation, experience, judgment, and conscientious thought and inquiry; and that he who brings these to bear in determining what varieties of food to select for his own dietary, will not be very likely to err.

Healds' Hygeian Home, Wilmington, Del.

Lacing.

DO PEOPLE suppose if they are so happy as to get to Heaven that they will have an array of cotton, whalebone, steel, &c., with which to improve the glorified figures that God will give them?

Do they suppose that angels of light are girt up till they can scarcely breathe? The idea is preposterous. But is it any better to deform the human body than it would be for beings of light and glory to so do? True, the degradation would not be so striking, but is not the sin as great?

God made our bodies perfect without need of alteration; and, besides, this unnatural cramping of the vital organs endangers health and frequently ends in death.

It is true we cannot always do as we would like, but, surely there is no need of violating the laws of health by wearing tight clothing. It is a slow suicide—and in some cases not so very slow—and is not self-murder as bad as any murder?

JOSEPHINE MOTT.

Reform in Diet.

WHEN God created man in his own image, and placed him in the garden of Eden, he caused to grow out of the ground every tree that was pleasant to the sight, and good for food, and God said, "Behold, I have given you every herb bearing seed, which is upon the face of all the earth, and every tree, in the which is the fruit of a tree yielding seed, to you it shall be for meat." There is no mention of any food except that which God caused the ground to bring forth. And was not that enough? for there was every tree that was pleasant to the sight and good for food.

We cannot for a moment question God's wisdom and love in providing for his children's physical wants. And it appears evident that the simple and delicious fruits and grains, fresh from his creative hand, were all that he designed should constitute the food of man.

We know that infinite wisdom cannot err, hence we must infer that vegetable food is most congenial and best adapted to meet the wants of the body. And how consistent with a state of innocence. Can we for a moment suppose that Adam, in his sinless state, pure, noble, godlike, should take the life of any sensitive creature, and feed upon its flesh? No; we cannot entertain such a thought. It seems to us wholly out of harmony with the new creation. And after man's first disobedience, after he took of that forbidden fruit "whose mortal taste brought death into the world and all our woe," we find no record that he was permitted to eat the flesh of any living creature until wickedness and violence so filled the earth that God destroyed it with a flood. Then when the earth was desolate, God said to Noah, "Every moving thing that liveth shall be meat for you, even as the green herb have I given you all things." Of this permission, Dr. Dick says that he considered it a grant only fitted to the degraded state of man after the flood.

Dr. Cheyne of Engand, thinks this permission might have been given as a curse or punishment to shorten the duration of man's natural life. Dr. W. Beach, the founder of the Botanic system of medical practice, says that animal food produces the following effects:

"1. It is more stimulating than vegetable food.

"2. It increases the action of the heart and arteries, and thus causes a quicker pulse and hotter skin.

"3. The chyle and blood taken from a living vessel formed by animal food becomes putrid sooner than that formed from vegetable food.

"4. The human body has more power to endure fatigue and resist disease when nourished by good vegetable food than when nourished by flesh-meat."

He also says, "An attention to diet and temperance in all other respects is not only necessary for the preservation of health, but is of great importance in the cure of diseases, many of which may be cured by a suitable diet alone.

"That man is capable of sustaining the health, vigor, and strength of his system upon a diet purely vegetable, is established by so many proofs as to place the fact beyond the possibility of doubt.

"As such a diet has a necessary connection with many virtues and excludes none, it must be of importance to accustom the young to it, seeing its influence powerfully contributes to beauty of person and tranquillity of soul." "It prolongs youth and of course the duration of human life."

Howard, the philanthropist, after testing the effect of a vegetable diet personally, and while exposed to plague, pestilence, and the foulest dungeons, filled with malignant and infectious disease, remarks: "I am firmly persuaded as to the health of our bodies that herbs and fruits will sustain nature in every respect far beyond the best flesh."

It is estimated that rice, wheat, and other grains, average from 80 to 95 per cent fo nutrition, while flesh-meats average only 35 per cent. Dr. Lee says that rice is the most valuable of all the articles of food in cases of derangements of the digestive organs. It nourishes and supports strength while it soothes the irritable mucous membrane.

Shelley says: "Abstinence from animal food subtilizes and clears the intellectual faculties." The Africans are noted for physical strength and power of endurance, and they subsist largely upon rice.

Good health is the precious gift of God, and is dependent upon obedience to those physical laws which he has ordained. To obey these laws in accordance with his design, we must, to some extent, understand them. To glorify God in our bodies, we must do all in our power to secure its health and vigor. Nothing is more requisite to secure this condition than pure blood.

Blood is formed from the food we eat. Is it not evident, then, that the best and purest food will form the purest blood? and that food which is unsuitable, or which contains much that is impure, will form impure blood, from which will result more or less of disease and suffering, unfitting us for the sweet enjoyment of life, and its high responsibilities.

There is an inseparable and intimate sympathy between the stomach and the brain, and also that delicate arrangement of nerves, called the nervous system, so that when one is disordered, the other rarely fails to be affected by it.

The brain requires a due supply of pure blood to properly sustain its functions.

It receives a large supply in proportion to the other parts of the body, it being estimated that one-fifth of the blood goes to this organ, though its average weight is only one-fortieth of the weight of the body. This fact is sufficient to prove that our food should be of the purest and best quality, especially for those who engage much in mental labor. For if this large amount of blood sent to the brain be defective in quality, unhealthy action must follow.

This is a German saying: "Without phosphorous, no thought." This element so necessary to mental effort is found largely in the bran or coarse part of wheat. If this is removed, leaving only the fine flour, there must be a deficiency of healthy stimulus to the brain.

Simplicity in food and drink is very important. "The Greek peasantry, who subsist on the simplest and plainest vegetable food, are distinguished for their suppleness, activity, and grace." Nature's real wants are simple, and it is said that every animal but man follows her dictates.

To partake of a great variety of dishes, or of highly-seasoned food, is unwholesome, and leads to intemperance in eating. Temperance, as one of the fruits of the Spirit, is enjoined upon every Christian. Its importance can hardly be overestimated. It promotes the elasticity and health of the body, clearness and vigor of thought, cheerfulness of spirit, and walks hand in hand with patience.

Dr. Abernethy says, "By salt and other high seasonings, we stimulate the appetite, turn the wheels of life too rapidly, and wear out the body before its time." Another effect is the injury done to the delicate organs of taste by which we discern the delicious sweetness of the natural fruits of the earth. Fruits are becoming more and more a favorite article of food. We give a short extract from *Coleman's World* on fruit raising. "This is a fruit country. Nearly all farmers may raise their own fruit. Strawberries, raspberries, currants, and gooseberries grow, or will grow, almost everywhere. They can be canned, and so preserved the whole year. Apples, pears, peaches, can be raised on most farms. There is no good reason why fruit should not be as plenty as corn or wheat.

"Fruit, to do its best office in the diet, should be cooked and eaten as a part of the regular

meal. Thus used, how delicious it is! How it adds to the pleasure of a meal to have it enriched with so delicate and agreeable an article of diet! How chaste and elevating is the tendency of such a diet compared with one of solid meat and bread. So it is; the best diet is really the pleasantest—therefore let fruit grow on our farms, and adorn and make pleasant all our tables."

It is evident that there has been a wide departure from the simplicity of nature in the selection of food and drink, and mankind have suffered in body and mind as the result. That we may regain in a measure this lost treasure—health—and restore to more vigorous action the mental and moral powers, we must return to that simplicity and obedience to the laws of our being which the Creator designed.

NELLIE F. HEALD.

Temple, N. H.

Mistress and Maid.

IF we cannot hire all the virtues for twelve dollars a month, it does not follow that we should show all the vices to our domestics. Really it would be well for some ladies to reflect that trials are the touchstone of merit, and the more patience, and forbearance, and good will, their servants exact the more they should give. The kitchen is a better school for mistress and for maid than the parlor.

If the lion had only written the history, we should have quite another version of his killing, and perhaps should change our estimates of courage and character. But it is the man who always tells the story, and makes out a sorry case for the lion. When we have heard ladies, seated on the softest sofa, covered with damask or satin, tell each other what dreadfully wicked servants they have, and how the wine of life is turned into aloes by their terrible tempers and constant depredations; how Jane will fib, and Bridget take the sugar and lose the spoons, and Kate make free with the claret, and all of them slight their work, and break the dishes, and not mind a word that is said to them, and have "beaux" into the bargain—we have wondered what their ladyships would say could they hear their characters described below stairs. It might do some mistresses good, if, sometime, when in genial humor, they should happen to overhear a free conversation between the servants of three or four families. There is nothing like having the glass held up to the face of nature; and even though the mirror is merely a bit of polished copper, it might suggest features that stray beyond the curve line of beauty, and stains that it would be well to have removed.

It is very easy to make out a case against Below Stairs. But just think what kind of a picture Below Stairs paints of Up Stairs! Bridget has learned how to entertain her visitors, in the most approved style, from her mistress. And such a mistress! She is *so* exacting! She has *such* a frightful temper! She is *so* stingy with her servants, but *so* prodigal for herself! She is awfully pious before folks, but calls her husband all sorts of names when he refuses to give her money, or take her to the theater, or give her a new dress, and, when she is mad, she will swear.

But Bridget's cousin Jane is not to be outdone by such a crayon sketch as this. Her mistress is a perfect termagant. She does not even dress herself in the morning, but calls Julia to get her up for breakfast. She smiles like a June morning before her husband and when she has company, but soon as the door closes, the children and servants catch it. She is always finding fault, always quarrelling, always fighting; and, a gourmand herself, keeps everything in the house under lock and key. Moreover she does drink, and she sells her clothes before they are half worn for spending-money, and she does cheat awfully when pay time comes, and tells the worst stories about everybody, and pretends to be not at home half the time when her friends call, and half the time makes up faces after her callers depart. Such descriptions as these are given down stairs; and, what is worse, in some instances a domestic tells her mistress just what Bridget says of Mrs. Velveteen.

People are too apt to forget that servants have senses as well as souls, and can see and hear what is done inside the castle when the gate is bolted and the draw-bridge up. It is easy enough to smile at equals, and fawn upon superiors, and exhibit all the virtues to those who belong to the same set with ourselves, and can report our behavior to our benefit or injury. But it is a much harder thing to smile below stairs, and carry all the virtues and graces into the dining-room and kitchen. We are too apt to show a lower style of character to those below than to those above us, and forget that Bridget and Jane have tongues as well as ears and eyes. The "help" problem would be half solved if mistress would remember that maid has a heart as well as a pair of hands, and that only the hands that have a heart behind and in them can ever serve well.—*Sel.*

A MAN who is not able to make a bow to his own conscience every morning, is hardly in a condition to respectably salute the world at any other time of the day.

WE are to work and learn. Life should have its quiet pauses, in which to gather rest for work, but no idle hours. The poor are to be ministered unto, the wicked reclaimed, and the sorrowing to be comforted.

To Correspondents.

A. W., of New Hampshire, asks:

Can corns be cured? If so, how?

Ans. To use caustics and burn them out is the surest way to rid yourself of these troublesome visitors; or soak them frequently in warm water and scrape them well, and apply saleratus or a cranberry poultice to them.

N. L. W., of New Ipswich, inquires:

1. Can the catarrh be cured by home treatment?

Ans. Catarrh may be cured after much time and patience by regulating the stomach and liver, and keeping the bowels regular, and skin clean.

2. How do you treat rheumatism?

Ans. Treat rheumatism with fomentations, sitz baths, packs, and as in other inflammatory fevers.

3. How shall I treat neuralgia?

Ans. Give about the same treatment as named above, as a general rule, varying with the symptoms.

X. Y. Z.'s cas rather difficult for home treatment. You should send the patient to the Institute to learn the way more perfectly.

W. G., Dane Co., Wis.:

Apply fomentations to the knee, and work the leg often so as to loosen the cords and lengthen them by a firm and steady manipulation after each fomentation, which may be applied once a day or each other day as strength permits.

A. D. R., Minnesota:

Improve your digestion by eating hygienic food and by regularity in all your habits. Use no hard water. Have such foreign and domestic fruit in your diet as you find agrees with you. Keep in the sunshine as much as you can, and get as much sleep as possible. When the pain is severe, take a sitz bath at 98° or 100° for from 5 to 8 minutes, then cool to 88° or 85°, and remain in one or two minutes. Fomentations and rubbing wet sheets will be found useful.

Mrs. A. Z. H., Michigan:

Your case is too complicated for a home prescription. You should come to the Institute without delay, as you have no time to lose.

R. S. R., Russian River:

We could not prescribe in this case farther than to say, Let him have a vegetable diet, two meals a day, plenty of out-door exercise, and a wash off every other day, with a pouring bath over the head each alternate day, with foot bath. Rub the spine up and down with hot and cold cloths alternately when the fit is on.

Mrs. N. C. W., New York:

Lemons are evidently very good in chronic diseases where there are derangements of the biliary organs, but there is danger sometimes in using them to excess, on account of excess of acid being generated from the too free use of them.

Mrs. M. E. L., Mich.:

The disease is ulceration of the bladder. Give fomentations over region of the bladder once or twice a day when there is much pain; or put cool wet cloths over bladder and hot ones low down on the back, also sitz bath every other day. Use no hard water or stimulating diet.

Mrs. E. S., Green Vale:

It would be useless to attempt home treatment in your daughter's case, as it would be of little use, and her difficulty will only grow worse the longer it runs. Send her here, if possible, where she can have the right kind of treatment by removing the causes, which are more than one. If this is impossible, call some skillful physician and have the organ replaced, as she will never gain to any extent until this is done.

E. B. H., Connecticut:

1. If you are in danger of hemorrhage from the lungs at any time, wet the head in cold water, put your feet in as warm water as you can bear, and after two or three minutes from the time your feet go into the water, apply a cool, wet cloth to the front of the chest over the lungs, so as to cover them well; then apply woolen cloths wrung out of hot water and apply over the spine directly opposite or between the shoulders. Repeat this for from ten to twenty minutes, and last of all, put a cool cloth for from five to ten minutes where the hot cloth was. This, if rightly given, will generally arrest the hemorrhage. To strengthen the lungs, rub the chest briskly a few moments each morning with the hands first dipped in cool water; repeat this for from three to five minutes for some time.

2. It is an injury to read much, as the mind cannot retain all the ideas, and congestion of the brain may be induced. Please bear in mind if you write again that none are entitled to an answer to questions unless they are accompanied by names in full, State, or P. O. address.

M. M. G., Ohio:

Your disease is bronchial catarrh. This disease and disease of the liver usually go together, and those who are thus afflicted will at times think they have every disease which flesh is heir to. These conditions are induced by bad dietetic habits, and the only true way to regain health is to correct these wrong habits in diet, by regularity in all habits, keeping the skin clean, and a strict adherence to a vegetable diet, and a right relation to the laws of life, and a total abstinence from all drugs.

PHYSICIANS, HEALTH INSTITUTE.

DR. TRALL'S
Special Department.

The Stronghold of Intemperance.

WE have long believed that the drug-shop is the parent of the dram-shop; that so long as alcoholic liquors are prescribed as a medicine, they will be used as a beverage, and that there is no hope for the final triumph of the temperance cause except in the adoption of the "long pledge." At the International Temperance Convention, held in London in September, 1862, a distinguished physician, in the course of an eloquent speech, said, "The last stronghold of intemperance will be the medical professions." His language was prophetic. Intemperance has now no other stronghold. Every argument, and every shadow of a shade of a reason, for taking the "fire-water" into the vital domain, are reduced to the single postulate, "the doctor says so." The "respiratory food" theory, which recognized alcohol as an alimentary principle, and confounded grog with victuals, was exploded more than a dozen years ago; the elaborate experiments of Sudger, Lallemand, Maurice, Perrin, and Duroy, have demonstrated that alcohol is not used in, but is expelled from, the living system; Dr. Richardson, of London, has established the fact conclusively that alcohol does not increase the animal temperature and the force of the circulation, but diminishes both; others have shown by indisputable evidence that every dose of alcohol taken into the system lessens muscular power, and several of the most eminent physicians, living and dead, have testified that alcohol, in low fevers and all conditions of debility and prostration, instead of assisting the patient to recover, only helps him to die.

But against these demonstrations of an obvious truth—a truth that, in the light of physiology, is a truism, and needs no proof—we have the perpetually iterated opinion of nine-tenths of the medical profession, and as large a proportion of the rumsellers (there are rumsellers who do not believe in rum, just as there are drug-doctors who do not believe in drugs), that alcohol is a "supporter of vitality." All the current medical journals are constantly bemuddling the public mind on this subject, as though the very existence of drug medication depended on the public recognition of the idea that grog is good —which is probably very near the truth. Physicians everywhere are exerting their utmost sophistry to keep alcoholic medication before the people, as though, if the people repudiated the liquor traffic, the drug trade would soon follow—which is more than probable.

A worthy "Friend," who has become involved in a discussion with an alcoholic (or allopathic, which is the same thing) M. D., writes us:

"Dr. R. T. Trall, *Respected Friend*:—I have for years been a believer in and advocate of thy non-medical use of alcohol. I fully believe in thy declaration, page 60 of The True Temperance Platform, that alcohol is not digestible; that it is taken into the system, carried through the system, and expelled from the system, as alcohol. But here come those perplexing experiments of Dr. Dupre, in which he undertakes to prove that man can use from one and a half to two ounces of alcohol daily, and that not a particle of it will pass from him as alcohol; or, in other words, that it is decomposed, and hence forms food for the nourishment of the system. This testimony bothers me. I am just now in the heat of a newspaper controversy with a doctor, on this point, and he is pressing the testimony of Drs. Dupre and Austie furiously upon me. I should indeed feel very grateful if thou wouldst favor me with thy views in relation to Dupre's experiments."

Admitting the fact that small quantities of alcohol, in the processes of expulsion, are so changed or decomposed as not to be detected in the excretions, it proves nothing in favor of alcoholic food nor alcoholic medicines. The same is true of the virus of the rattlesnake, and a thousand other poisons. Cod-liver oil, epsom salts, calomel, jalap, ipecac, gamboge, slatesium, etc., can be administered to the extent of causing death, yet the most careful analytical chemist could not detect a particle of either drug in any one of the excretions. The question of alcoholic food rests on very different data.

Food for animals and for human beings is produced *only* in the processes of organic growth. Alcohol is not so produced, and so that question is settled at once. Again, all food elements exist as proximate principles in organic matter. Alcohol does not so exist, and so the question is settled again. Thirdly, food is wholly changed, decomposed, or transformed, so that none of it is found in the excretions. This is not the case with alcohol, hence the question is settled once more. And, fourthly, every product of the decay or decomposition of organic matter is a poison to human beings, therefore the question is settled once more. But what is the use of settling this question? The doctors will give it as long as the people will swallow it. We must teach the people the better way, and let the medical profession go to its own place.

Antediluvian Doctors.

THE *Medical Record*, an allopathic journal, does not admire the animus and actions of the American Medical Association. Indeed, it expresses the utmost contempt for the whole concern as belonging to the dark ages, if not to a period of history anterior to the flood. After alluding to the manner in which the Association

were entertained in the City of Brotherly Love, the *Record* says:

"But when we leave the social aspect of the convention, and consider it as a body claiming to represent the status of a learned profession in this country, we are alternately humiliated and amused. That a national society, a quarter of a century old, should have grown no more mature than to spend the whole of its general sessions, not in listening to scientific addresses, not in discussing scientific problems, but in petty squabbles over its code of ethics, and in wild efforts to give its *transactions* an appearance of manly strength and dignity, when its meetings are devoted to child's play, is not consoling to us as a member of the medical profession of America. But when such a body assumes to dictate a scheme to be recognized as the only system of medical instruction in this country, and to demand that college charters be granted or revoked in accordance with it (Report on Education), the notion is so supremely absurd that we are put in good humor again. It is strange how the men of real culture and power in such an assembly are dragged down by the dead weight of its average ignorance and imbecility.

"On the question of recognizing woman's place in the profession, the Association manifests the same illiberal spirit which has characterized it heretofore. The first ground assigned by its committee on ethics for the exclusion of delegates Palmer and Reyburn, in a report indorsed by an overwhelming vote, is that they are connected with a college which admits female students and employs a woman teacher. The Association refuses to recognize that this question is practically settled, and continues to pass resolutions and make decisions as though it expected the country to respect them."

We would not like to call the "average" of the medical profession of the United States "ignoramuses" and "imbeciles," but we really think that the American Medical Association needs a few women among them just to make things lively and let them know that the world moves.

Extract of Meat.

TO EXTRACT moonshine from a cucumber by a chemical process is as rational a problem as that of making an extract of meat by any process whatever. The thing is simply an impossibility. A hundred persons have worried their lives away in trying to contrive a "perpetual motion" machine—a machine that would not only go of itself, but contribute to the going of other machinery, that is, impart what it did not possess. These inventors were ingenious in mechanical manipulations; they were expert in cogs, wheels, levers, and their complicated adjustments and relations; but they were incapable of appreciating a first principle. They could not comprehend a law of nature, and wasted their time and talent in fruitless efforts to "make a pound raise more than a pound." And the meat extractors, though excellent chemists, and expert in all matters of nomenclature and analysis, are professing to do what a recognition of the law of vitality would demonstrate to be an impossibility.

Baron Liebig is a great analytical chemist, and Liebig & Co.'s Extract of Meat is sold all over the country as a form of highly concentrated nutriment. It has received premiums at Paris, Havre, and Amsterdam, and is used by the English, French, Russian, Prussian, Dutch, Italian, and other governments, and is very largely sold by grocers and druggists throughout the United States. One pound of the extract is said to contain the nutritive portion of forty-five pounds of fresh beef. If this were true it might be important, for a person could conveniently carry in his traveling-bag a supply of provision for a month or two, in addition to necessary clothing. But it so happens that there is no truth in the statement.

So far from the extract of beef equalling in nutritive value forty-five times its weight of real beef, it does not contain a forty-fifth part of it. Indeed it is not food at all in the proper sense of the word. It is a mere stimulant, and its effect differs very little from that of cordials, or beverages in which wine or brandy is the medicinal ingredient.

The only way to "concentrate" any kind of food whatever is to evaporate its water, and the only process is drying. Milk is concentrated by being heated in shallow vessels, just as sap is concentrated into sugar; and flesh is concentrated by being exposed to the sun or to a moderate fire. But when flesh is boiled to a jelly there is no concentration about it. Its organic arrangement is destroyed, and then it is not food at all. It is strange that persons who know what it means to desiccate flesh, fish, and fowl, and to dry pumpkin and berries, and to evaporate milk and syrup, should not be able to understand that the Liebig & Co.'s Extract of Meat is a humbug.

"Modus Operandi."

THE medical profession has always recognized the theory that medicines act on the living organism, but it has never been able to explain how. We have long contended that medicines do not act at all, and this negation seems to be very difficult for many persons to comprehend. The question involves a number of collateral issues—the "properties" of medicines, "antidotes," "specifics," etc. One of our correspondents who is puzzled on the antidotal problem, writes:

"Dr. Trall: Please answer in the HEALTH REFORMER, is palsy a disease? I see no effort or action on the part of the system in palsy. Since drugs or poisons are taken into the system to antidote other poisons—and thus the lives of some persons are saved—why do not drugs or poisons taken into the system antidote the poisons which are the causes of disease? I am somewhat in favor of the hygienic system, but I find the above the most difficult thing to get over. If the system acts on medicines to get them out, how can we account for the action of the system when using a sedative? I do not see that the system is trying to get the medicine out."

Palsy is not technically a disease. It means loss of feeling, or motion, or both, and is, therefore, a condition. Disease is an action—remedial effort. In the abnormal condition, termed palsy, there is a remedial effort to remove the obstruction which causes the palsy, and this effort constitutes the real disease.

Drugs may antidote other drugs, according to chemical affinities, wherever they come in contact with each other, or rather, within insensible distances. If poisons are taken into the mouth or stomach, they may there be neutralized or antidoted with other poisons. But when the poisons have been absorbed and diffused through the whole mass of blood, the case is very different. In transporting them through the circulation and expelling them at the outlets of the body the blood is more or less disorganized; and to send an antidoting poison after them would occasion a double and perhaps fatal injury. The vital powers would have two poisons instead of one to war upon throughout the whole domain of life, and if the two poisons should meet each other and combine, there would still be another substance in the newly-formed compound for the living system to war upon and expel. While, therefore, poisons may be neutralized by poisons in the cavities and channels of the body, they cannot be antidoted in the mass of blood nor in the structures without an injury vastly greater than any possible benefit.

Again, the causes of disease which the physician has to deal with are very seldom poisons existing in the blood whose chemical composition is known. They are the *effects* of poisons, not the poisons themselves, and existing impurities whose chemical qualities and antidotal agents are wholly unknown. Hence the proper treatment is simple purification. No physician nor chemist can tell the ingredients of, nor indicate the antidotes for, the poisons or impurities which cause any kind of fever, any form of inflammation, gout, rheumatism, small-pox, measles, erysipelas, scarlatina, dyspepsia, scrofula, consumption, apoplexy, or palsy. Take a patient to your chemico-antidoting-drug doctor, who has liver complaint, kidney disease, neuralgia, spinal irritation, or epilepsy, and ask him to administer some drug, medicine, or poison, which will antidote or neutralize the cause of the malady! He cannot name the poison which causes the malady, and he might name any one of the two thousand poisons of the drug-shop as an antidote, as any other. Or he might give a mixture of the whole two thousand, provided the aggregate dose was not too large, as well as either one, or any other number. The whole theory and practice is intrinsically absurd, yet it is just what medical men have been teaching and practicing for nearly three thousand years.

The Galaxy on Salt.

THE reasoning of newspapers and magazines on medical subjects is almost as queer as that of medical journals. But, as they all reason from the same false premises, this is not surprising. The *Galaxy* says:

"Common salt, common though it be, is one of the most curious and interesting of substances. It consists of a solid and a gas. The solid is a shining metal with such powerful chemical affinity that it decomposes water with violence, taking fire in the operation; and this is combined with an aerial, corrosive, suffocating, poisonous gas, equally violent in its chemical energy. These two elements combine with enormous force. Thus twenty-four parts by measure of common salt contain about twenty-six of metallic sodium, and thirty by measure of liquid chlorine. Yet the space occupied by the whole is less than that of the metal alone. No known mechanical force could have produced so great a condensation, and yet chemical energy does it, and at the same time yields a bland and savory substance, which crystallizes in cubes more transparent than glass."

Bland and savory is it? So are alcohol, and cayenne pepper, and mustard, and raw onions, to the torpified and perverted sense. But, let a person unaccustomed to the use of salt, take a teaspoonful into his mouth, and he will find the article just the opposite of bland and savory. Again says the *Galaxy:*

"Its physiological offices seem as important as its distribution is extensive. It is a large constituent of every one of the secretions, and forms almost half the total weight of the saline matters of the blood. It differs from the phosphatic salts however in this, that it does not enter into the composition of the tissues. It seems rather to be the medium of absorption and secretion, and so necessary is it for these and probably other purposes that it is not possible to alter to any large extent its proportion in the blood. It results from many experiments, that if we drink water with a little common salt in solution, it does not permanently dilute the blood, but passes off immediately by the kidneys; and if we try

to increase the amount in the blood by drinking solutions of salt, as sea-water, it refuses to be absorbed. Hence the normal proportion of it in the blood is without doubt a physiological necessity, and is clearly involved with the essential processes of absorption and diffusion."

The *Galaxy* fails to see the proper explanation of the facts it adduces. The "normal proportion" of salt is the result of disorganization and decomposition. Because salt is found in the ashes or *debris* of organic matter, as well as lime, iron, phosphorus, sulphur, soda, potash, etc., it does not follow that we should eat it, any more than it follows that we should eat the other excrementitious matters. Food and excrement are very different things. One is the product of growth and construction, the other of decay and disintegration. The fact that salt "refuses to be absorbed" (the absorbents refuse to take it), and the fact that the salt taken in solution "immediately passes off by the kidneys," ought to be conclusive that salt, as a dietetic article, has no use in the organic economy; and the ancient superstition that, to sprinkle salt on the meat was to drive away the devil, does not help the salty side of the argument. It is a question of science, not of theology.

Answers to Correspondents.

NERVOUS DEBILITY.—W. N.: "Dr. R. T. Trall: Can you cure nervous debility? And if so, how? Please answer through the HEALTH REFORMER."

It depends on the remaining stock of vitality whether we can cure, or to what extent we can relieve. The phrase is applied to many phases of disease which have exhausted vitality as the common cause. The restoration of health in every case will correspond in degree to the degree of vital exhaustion. Such patients need all the appliances, and especially the discipline, of a health institution. Some will succeed with home-treatment, but all who can would save time and money at an institution. Advice for self-treatment cannot be given without a history of the case and statement of all the existing symptoms.

"BLOOD-WASHING."—N. T. A.: The idea that the saline and other effete matters of the blood can be "washed out" by excessive water-drinking, has no foundation in physiology. If more water than is usable is taken, it must be expelled; but its expulsion is not a cleansing process. Depuration, or excretion, is a very different idea from mere separation. Many dyspeptic stomachs are injured by drinking too much water, on the mistaken theory that water will wash the blood as it will the surface or a garment. The safer way in chronic diseases is to drink no more than can be used. In fevers a greater quantity may be taken as a diluent and cooling agent.

NUMBNESS.—O. R. S.: The usual cause is a bilious state of the blood, or a plethoric condition of the whole system. Free the blood of its biliary accumulations by means of the wet sheet pack three times a week; take plenty of out-door exercise, and eat sparingly of simple food, avoiding milk, sugar, and all greasy articles. Use mostly solid food which necessitates thorough mastication.

SUNSTROKE.—Y. J.: The rationale of this affection is, a recession of blood from the surface to the internal organs, occasioning a condition of visceral congestion analogous to that of apoplexy. Cold water to the head and plenty of fresh air constitute the remedial plan.

INFLAMMATION OF THE CORNEA.—J. P. B.: The affection you describe is known in the latest works on the pathology of the eye as *fascicular corneitis*. It is a chronic inflammation of the edges of the cornea and adjacent conjunction. It is usually very obstinate and affects mostly persons of weak constitutions and scrofulous diathesis. In treating it, bathe the eyes frequently with tepid water, and attend strictly to the promotion of the general health.

WARM-BATH—VITALITY.—J. J.: "Why does a warm bath, in the evening, after a hard day's work, make a person feel refreshed? Is such a bath injurious? What is vitality?"

The warm bath cleanses the skin and increases the external circulation. It is not injurious unless too prolonged. Vitality is the sum or aggregate of the distinctive properties of living structures. These are the contractility of the muscles, the sensibility of the cerebro-spinal nerves, and the irritability of the organic nervous system.

ALTERATIVES.—J. J.: "You teach that the system acts against the medicine. Explain the action of the system in that class of medicines called alteratives."

Medicines are called alterative when the effort to expel them is general throughout the system, without being specially directed to any outlet. Thus calomel, and tartar emetic, in moderate doses, occasion a disturbance (remedial effort) of every organ of the body without increasing depuration from any. They are said to affect, change, and correct the secretions and excretions. They do affect and change them, but always for the worse. Poisons never correct morbid actions.

WHISKY AND CONSUMPTION.—J. T. F.: The fact that the patient has taken the "whisky-cure" for three months is pretty conclusive that she is incurable now. We have never known a consumptive patient to survive such treatment long. We have always refused to take consump-

tives to treat, or even to prescribe home-treatment for them, if they had been drugged for months on "fire-water," knowing that they could not recover, and that our system would be blamed if we meddled with their cases in any manner.

INTERNAL OTITIS.—J. B.: Your disease is chronic inflammation of the internal ear. Possibly the bones are ulcerated, and deafness may be permanent. It is possible, however, to restore some degree of hearing by a proper adjustment of wet cotton, or something similar, to the drum of the ear. In some cases of complete deafness perfect hearing has been restored in this manner. The first thing to do, however, is to remove the cause of the inflammation, and this requires the strictest dietetic regimen, and as much bathing as the temperature and circulation of the patient indicates. A health institution is better than an aurist for such cases.

FLATTERY.

WHOSO to me my faults revealeth,
And not a blemish e'er concealeth,
My friend I deem,
Though hostile he may seem.

But he who flatters, and who never
Gives me rebuke, but praiseth ever—
My foe is he,
Friend though he seem to be.

—*From the German.*

NOT ENOUGH.—How many toil on, disquiet and harass themselves, as if desperately struggling against poverty, at the same time that they are surrounded with abundance!—have not only enough, but more than enough—far more, in fact, than they actually enjoy. Still, on they go, worrying themselves incessantly in the endeavor to acquire more property, as if under the influence of some fatal spell. To the tasks of labor there are seasons of intermission; but to the toils imposed by the vain endeavor to satisfy imaginary wants, there are none. It would seem that enough is a nonentity, a dream, a chimera—something conceived as possible to be met with, yet never found. As far, indeed, as our neighbors are concerned, we can generally find very good and sufficient reasons why they ought to sit down perfectly satisfied and content with what has fallen to their lot. But in our own case—that is, in each man's particular case—the argument becomes altogether changed, and every one can find very good reasons wherefore he should be exempted from the rule he lays down for others, and be privileged to be discontented. The true policy is, if we cannot raise our circumstances to the level of our desires, our endeavor must be to cut down our desires and expectations to the level of our circumstances; and we should then generally find that we have quite enough, where we now fancy we have too little.

The Doctor's Subject.

"ONE hundred dollars."

Dr. Metcalf made room for the young man at his desk, saying:

"Just sign your name there, sir, if you please, sir, payable in six months."

"It's a heavy bill, doctor," said Harry Lane, hesitating a moment, with the pen between his fingers ere he added his signature to the note.

"Heavy bill? Well, now I don't know," said Franklin Metcalf, M. D., as he tapped his foot rather impatiently on his office floor, and gazed absently from the window.

"A hundred dollars are earned more easily by you than by me, doctor. I've had an unlucky year of it, and I haven't made that amount in the last twelve months. Couldn't you make it a little less."

"What, the bill?"

"Yes."

"Not a cent, Lane. Medicines cost, and my time is valuable. You would have my services, and you couldn't expect the President of a Medical Institution to practice for nothing."

"Certainly not," replied Harry Lane, making an energetic dash upon the paper, and writing his name in bold, heavy characters.

"There, Dr. Metcalf, I only hope I'll be able to keep my word and make it good in the course of six months."

Dr. Metcalf folded the paper and placed it with others of a like character in his desk. Harry Lane arose, buttoned his overcoat, and put on his mittens. The surgeon paced the floor rapidly a few moments, and then advancing to where Harry Lane stood by the stove, he asked, in a low tone:

"Are you in haste, Lane?"

"None in particular."

"Then sit down a moment—I want a word more with you."

"Very well, sir," replied the young farmer, resuming his seat and tapping his fur overshoes with his riding whip.

Dr. Metcalf drew his office chair close to where the young man sat, and began:

"That account is one hundred dollars."

"Yes, I understand that."

"Let us enter into a little calculation, corn is one dollar and fifty cents per bushel—it will take sixty-four and two-thirds bushels to pay this bill."

Harry Lane's countenance looked quite desponding.

"I shan't raise half the amount of corn in all this year. The season's being unfavorable, the late rains did a good deal of damage, and the early frost blasted a considerable part of the late planted."

"Look here, Lane," said the surgeon, in a low, confidential manner, "that bill must be paid!"

"I shall try and pay, sir."

"You're an honest man, I know, Lane—but it will be tough work, paying a hundred dollars in cash, or out of your scant allowance of grain. I'll make it easy for you."

"Thank you," said Harry Lane, gratefully.

"I'll make it easy for you—you can pay that debt in one night. Listen to me. I am in need of a subject."

Had a bomb-shell exploded at the young farmer's feet, he could not have started up in greater surprise.

"I am no grave robber, Dr. Metcalf," he said, indignantly.

"Look here, Lane, you are very unreasonable. Science demands this. I have a class of students who, in order to acquaint themselves with the human frame perfectly, must have a subject for dissection. There is nothing wrong in this; on the contrary"—

"Well, well, I don't want to talk about it," said Harry Lane, uneasily.

"No, you don't want to talk about it, but I do. This forenoon a stranger was buried in the graveyard; he was accidentally killed. He would make a good subject."

"Go to some one else if you want a grave robber," said Harry Lane, indignantly, rising to go.

"Perhaps you'll think better of my offer, Lane, after you think the matter over. Bring me a body to night and I'll give you up your note. Should you bring one, come to the back door of my office, as I sleep here to-night."

"Good day, sir," said Harry Lane, bowing himself out, and closing the door.

Dr. Metcalf threw himself into a chair and took up a note that lay on the table. It was written in a delicate female hand, and there were traces of tears upon it. The note ran as follows:

"DEAR FRANK:—Amy has propped me up in bed so I can just write a word to you. I am ill and wish you would come to me; it is a long ride to be sure, but I must see you once more before I go. I shall send this by Harry Lane, who has just stopped to see how I do. Do come, Frank, to your miserable sister, CATHERINE."

Dr. Metcalf bowed his head upon the table with his fingers over his eyes, and when he withdrew his hands there were tears upon them—tears, real, genuine tears—and why? These were the pictures that like a panorama passed before him:

A happy home, father, mother, brother, sister, all there; he was the brother, Catherine was the sister. They were both children then.

Another picture—Thanksgiving evening; father and mother, and brother returned from college.

"Where is Catherine?"

No answer. Only does the brother know that his sister is as one dead in the family. She has fled from her home with a man her parents despised, not because of his poverty, but for his vices, and yet that sister loved him after all.

Another picture—father and mother dead, the son holding a high position before the world, the sister a drunkard's wife, surrounded with half-starved children. This was the picture that brought tears to Dr. Metcalf's eyes.

Dr. Metcalf called for his horse and cutter, and wrapping himself in furs and shawls—for the day was very severe—he set out for his sister's miserable home, and arrived there after an hour's hard driving.

"I'm so glad you've come, Frank."

Dr. Metcalf looked around; misery, poverty, perfect wretchedness was written upon everything.

"Catherine," said he, "have you not concluded to accept my offer yet?"

"And what is that?"

"Don't you remember? I told you as soon as you would leave that miserable"—

"Oh, Frank!"

"I say he is a miserable wretch!" vociferated the doctor, bringing his clenched fist down, upon the bare pine table, with a force like iron—"I say he is a miserable wretch, off on a spree now, I dare say, leaving these brats—"

"Oh, Frank!"

"Well, I won't if it hurts you; the children look likely enough—they take after you, Cathie."

"They're good children, Frank, and he's good when he's sober. There never was a better husband than George Morris until he took to drinking."

The poor woman put her thin hands to her eyes and cried quietly. Dr. Metcalf looked this way and that, in a troubled, half impatient manner.

"And why don't you leave him?" he questioned at length. "I told you when I saw you before that any time when you would leave George Morris, and give me your sacred word you never would live with him again, I would take care of you and your children."

The poor woman gave no reply.

"Say, Cathie," he questioned, "consent, let George Morris take his own course—let me take care of you."

"And give him up?"

"Yes, let Satan take his own course. George Morris must be one of his, surely, for nothing but a fiend could have the heart to do as he has done and bring his family to such wretchedness."

"But when he's sober—"

"Oh, yes, when he's sober, but—"

"He is sometimes, Frank, and there never was a kinder, better man, but I can't leave him. I promised never to leave him, whatever might come, nothing but death should separate us."

Dr. Metcalf rose impatiently.

"Then take your own choice, Catherine. Never will I help you one cent while you live with George Morris."

After her brother was gone the poor woman called her little daughter Kate to her bedside and said:

"There is One who can help us now, Katie; ask God to help us!"

"But he don't hear us, mother; we have asked him so many times, but he don't answer us."

"But he will if it is his pleasure, Katie."

The child obeyed, and the blue, pinched lips murmured: "God, give us this day our daily bread."

Harry Lane finished his business in town and started for home about sunset. Doctor Metcalf met and called out to him:

"Remember that offer I made you, Lane?"

Harry Lane nodded and passed the doctor's cutter with a bound. Night set in before he arrived home, and when he reached the gate, a pretty little woman met him with a lantern.

"I'm so glad you've come," she said in a relieved, overjoyed tone.

"And why, my little puss?"

"I've been afraid all the afternoon."

"Afraid?"

"Yes, but do come in and have supper before you unharness, Harry."

"And of what were you afraid, Em?"

"Well, I will tell you. George Morris came here just a little while after you left. He came, and sat down before the fire, and acted dreadful strange. Pretty soon I found that he was about half drunk."

"And what did he do?"

"Nothing only drink, and talk, and drink, but I was so afraid of him. I've heard so much of being killed by drunken men, and he got so dreadfully drunk, Harry. Well, he stayed until nearly dark, and he has emptied the jug that he had with him and fell over dead drunk."

"In the house?"

"Yes."

"And is he there now?"

"Yes."

"Perfectly insensible?"

"Yes, as insensible as a log."

Harry Lane gave a sudden leap in the air, and gave a wild hurrah that quite startled his quiet little wife. He had nearly unharnessed his team, but he replaced the harness as quickly as possible.

"What are you going to do, Harry?"

"Hitch Bonny and Fleet to the sleigh again."

"What for?"

"Never mind, you are quite sure that George Morris is insensible?"

"Yes, and he has been so for half an hour."

"Ha! ha! ha!" laughed the young man. "Whoa, Bonny, stand still; Fleet my man—ha, ha!"

Harry Lane fastened the horses to the bars and ran up the well-trodden path to the house, followed by his wife.

"Get a sheet, quick, Em!"

"A sheet?"

"Why, what does ail you, Harry, are you crazy? What are you doing, for pity's sake?"

"Just wait and see, Miss Em."

"Yes, a sheet, quick!"

"What for?"

"Never mind—there, that's it. Help me to wrap this fellow up in it. He'll make a capital subject! ha! ha!"

"What are you going to do?"

"Never mind—just take hold of his feet Em; steady now, that's it! Don't think me crazy, little one; I'll tell you all about it when I get back. Have supper ready for me when I come."

George Morris was placed on the sled.

An hour afterward, Harry Lane knocked at the back door of the doctor's office. The worthy Doctor Metcalf presented himself.

"Where shall I take the body?" he asked, in a low voice.

"Right through into the dissecting room and lay it on the table. There, I thought you'd think better of it, and you've been quick, too. Stopped at the graveyard as you went along, didn't you?"

"And the note?"

"Here it is; you're welcome to it, Mr. Lane. Your a good hand at such little matters, and I shall have to call upon you again."

"If you like the subject, I may be able to furnish you more of the same kind," replied the young man, tearing the note into strips and closing the door with a, Good evening, doctor.

Dr. Metcalf chuckled to himself, well pleased with his success. For a half hour, perhaps, he sat in the easy office chair, whiffing a fragrant Havana. At the end of that time, he took up the candle and went into the dissecting-room, to see what kind of a subject had been brought for his class to work upon the next day.

He held the candle in his left hand and turned back the sheet with his right. The fumes of liquor met his nostrils. He started with a ludicrous combination of anger, surprise, and amazement, upon his countenance.

"George Morris, by all that's evil!" he ejaculated—"Drunk."

Doctor Frank Metcalf saw that he had been sold, and to the tune of a hundred dollars too.

His first determination was to give Harry Lane a large piece of his mind; his second was to have the worth of his money, at any rate. Students are generally in for sport, and those belonging to the institution superintended by Doctor Metcalf were no exception to the general rule. Everything was in readiness about the time George Morris awoke from his drunken stupor.

He looked around—ghastly skeletons, horrid, grinning skulls, fleshless bones, met his gaze on every side—he tried to move; he could no more ave raised an arm or foot, than he could have h

flown. A dim light revealed all this to his gaze—a moment more and he was in impenetrable darkness.

Suddenly, right before him in flaming characters, he saw the word "perdition!" He trembled, he groaned, he shrieked in terror. Was he in the abode of the lost? Again a dim light revealed by his side a horrid figure, that might well have represented a prince of darkness.

"Mortal one," spoke a ghostly voice, "you have come to this dreadful abode for the sin of drunkenness."

"Mercy! mercy!!" shrieked the trembling man.

"Mercy! that never enters here. Behold, you have brought your whole ruin yourself."

Again all was darkness; groans, horrid yells, and shrieks fell upon his ear, ice-cold fingers passed over his face, and dreadful pinchings were inflicted upon various portions of his body. Shrieking aloud—he gave vent to his agony and terror in groans and cries for mercy.

"You were a drunkard when living," said the unearthly voice.

"Oh! yes, yes!" groaned the unhappy man.

"You had a good wife and interesting children."

"Oh! yes, yes, the very best of wives, and the loveliest children."

"And you let them suffer and starve, oh, you incorrigible man!" said the unearthly voice.

"Alas, yes."

"And therefore receive your reward."

Again the pinchings and burnings were continued and an almost intolerable odor of sulphur besieged his nostrils. Again he shrieked and pleaded for mercy.

"Oh, mercy, mercy!"

"You had no mercy on the wife who loved you, and the children who cried for bread," said the unearthly voice, "yet upon one condition you may return to them."

"And that, what is that? and the condition?"

"And remember, I shall watch you, and if you ever cause that noble wife of yours a tear—"

"Oh, I never will!"

"Then remember," said the ghostly voice again, "remember!"

Chloroform rendered the miserable man insensible. In that condition he was conveyed to a barn near by, and placed in the manger, there to recover himself as best he might.

George Morris never drank another drop of spirituous liquor. He became an industrious man, a tender and provident father. One day he told his wife, in confidence, that the reason he reformed was because he appreciated her generous devotion, but we knew better.

For a while Harry Lane was a little shy of the doctor, but when he did meet him, the worthy physician shook him warmly by the hand, saying that although he did not wish for any more subjects, he thanked him very much for the one he had brought him, as by that means a most inveterate drunkard had been reformed, and a broken-hearted wife rescued from the very brink of the grave.

Harry Lane asked no questions, but when the name of George Morris was proposed, a few years afterward, for the nomination of county judge, he gave a peculiar whistle, and said in a low tone, "Well, it all comes of being the doctor's subject!"—*Sel.*

Sunlight.

ONE of the primary causes of sickness, suffering, and premature death, is the exclusion of *sunlight*. Sunlight is necessary to the health of mankind; it is necessary to the health of every kind of animal which exists on the face of the earth. It is also necessary to the health of all the plants, flowers, and trees, that live in the fields and the forest.

Any lady who keeps house-plants knows enough to keep them where they will get the benefit of sunlight. You may look at the lilies, roses, pinks, and dahlias, of your flower garden, and you will notice they all have beautiful colors. You may rear those same flowers in places where the sunlight is entirely excluded and keep them in the dark, or supply them with artificial light only, such as candles, lamps, and gaslight, and you will find they will not have that pure, brilliant, wholesome, beautiful color which nature designed they should have. The same is true of men, women, and children, if they are deprived of sunlight. Demonstrations of this fact may be seen in your fashionable parlors, where women and children spend most of their time, and the windows are kept blinded to keep out the sunlight for fear it might injure the carpet.

Some people do not know what a nice thing sunlight is. It is composed of seven different colors, so nicely blended together as to make one grand, sublime, beautiful substance which we call sunlight.

These seven different colors may be seen separated by the solar spectrum, and may also be observed separated in the beautiful rainbow, as it stretches its arch across the eastern skies. I believe the influence of sunlight helps give color to the blood. D. D. STEVENS, M. D.

Cedar Co., Iowa.

HOW easy it is to please and to be pleased, as well as edified, if one will take the fragrance of the rose instead of the thorns, and hold the knife by the handle and not by the edge.

YOU may glean knowledge by reading, but you must separate the wheat from the chaff by thinking.

The Health Reformer.

HAVING been a subscriber for this paper from the beginning, I have the means of its teachings and their practical application in life, by which to form a judgment of its merits. And I am perfectly satisfied that it pays to take it. It is often the case that some little item of information, contained in a short paragraph, is worth to the reader the subscription price of the paper for one year.

Health is the greatest earthly blessing; and the only way to secure it to ourselves in the highest possible degree, is to live healthfully; that is, to live in accordance with the laws of our being—to eat and drink the purest food, dress in the most healthful manner, breathe the purest air possible, and labor and rest in harmony with the wants of our system. No medicines can compensate for the want of these; and if we live in harmony with the laws of our being, no other medicine is needed.

I can conscientiously and heartily recommend the HEALTH REFORMER to those who may read these lines. I have tried its teachings, generally, and tested their merits. Come, friends, you have probably tried many things recommended by doctors and others; try one thing more—take the HEALTH REFORMER, and live out its teachings. And do not be too easily discouraged and give it up too soon. You have transgressed the laws of your being a long time. Nature must have some time to restore; but be patient, and she will do her own work well.

I have known persons continue the use of ardent spirits or tobacco for fifteen or twenty years, because they had a disease which made it decidedly necessary. And they were not yet cured, but must still have the medicine daily. You need not continue the practice of hygienic principles more than half that length of time, before proving and deciding upon their efficacy. And if you find this way good, you are welcome to the benefits, which you will find are not small.

R. F. COTTRELL.

Handwriting.

TO WRITE an ugly hand may be called a misfortune, if you will; but to write an illegible hand is a crime against society. Every one who chooses can form each letter distinctly, can make a difference between an n and a u, between e and c; can dot i's and cross t's. Therefore, no educated person who wishes for employment as an amanuensis or copyist can be excused for writing badly. He ought to be able to write letters and copy manuscripts clearly and legibly; if he cannot, he has only himself to blame. To those who feel their deficiency and wish to improve, here are a few hints. Write two or three copies every day in a large hand. Look at your copy upside down, when the turns of the letters should appear as well shaped as they did when you looked at them the right way. Thus, let the letters nu, when turned upside down, make a good mi, only wanting the addition of the dot to the i. Never leave an i to be dotted or a t to be crossed till you have finished the line or sentence. Dot your i's and cross your t's when you finish the word, at latest. Remember that the lines of legibility in writing, as of beauty in nature, are all curved. Angular writing is never pretty, seldom legible. Never indulge in making over-long tails to g's, q's, y's or over-long heads to l's, t's, and similar letters, running them into the upper and under line. Indulge not in turns, curls, or flourishes of any kind. Study to make your writing compact without being cramped; free without straggling. To write rather upright than otherwise contributes to the union of compactness and freedom. Never imitate another person's writing under the idea that it is prettier than your own. Many a person has spoiled a good handwriting in this way. Let your handwriting form itself from free, bold copy-writing, and let it be thoroughly your own. Cultivate the power of writing quickly, because it will probably be necessary to you—certainly an advantage. Legibility must never be sacrificed for speed.—*Victoria Magazine.*

A Hygienic Cure.

IT was in the spring of 1837, when the subject of health reform was comparatively new, that I made the acquaintance of a young man in the last stages of chronic diarrhea. He had exhausted all the usual means offered by old-school physicians, and, without hope of recovery, was waiting to die. He possessed a strong, vigorous constitution; but disease and drugs had made sad havoc with him. He seemed a mere skeleton; indeed, he was the most pitiable object I ever saw. His digestive organs refused to act, and he was literally starving to death in a land of plenty.

Providentially, at this juncture of the case, a stranger came into the vicinity, and upon learning of the critical condition of this young man, at once prescribed a simple, but what he claimed to be a sure, cure for him. It was to take some sound wheat, grind it, then take the bran and mix with soft water, roll thin, cut into small crackers, and bake thoroughly, and make them both his food and medicine exclusively, until restored. His friends predicted it would kill him in ten days. But at the expiration of that time, he was much improved, and in six weeks he had gained fifteen pounds of flesh, and in two months' time after having begun treatment, he engaged in school teaching. Through patient continuance in well doing, he became a strong, healthy man.

This may stagger the credulity of some; but facts are stubborn things oftentimes. To my mind, there is more in "bran" than was ever dreamed of by any of the disciples of Paracelsus old school. They make great pretentions to wisdom, when really they are ignorant of the first principles of how to maintain health.

A. W. FLOWERS, M. D.

Stimulants.

NATURE kindly guards us from harm by diminishing the enjoyment as we approach excess. Thus food, which at first is palatable, becomes tasteless; exercise, which at first gives pleasure, becomes wearisome; wakefulness is succeeded by desire for sleep; and everywhere this law protects us from harm, until flattering stimulants step in and give appetite for the otherwise unpalatable food, goad on the energy of the weary, and banish the desire for sleep, giving unrestricted license for excess in every department of our nature. If no other evil resulted from their use, this alone is sufficient reason why they should be condemned.

Can we afford to cast aside the guarding and guiding hand of our Creator so wisely given to us to lead us into physical as well as moral rectitude? All of God's laws are not written out by inspiration. Why is it not sin to efface the inspiration of nature as well as to add to, or detract from, the sacred pages?

Doubtless many would be willing to condemn stimulants in general, but would make an exception in favor of their particular stimulant. The well-known Dr. Hall says, "There is no such thing as a good stimulant, so there can be no *best* stimulant. Stimulants are all bad. What is a stimulant? It is a *poison*. To stimulate means to goad; to excite. Alcohol is a stimulant, and when it is taken into the system, the vital powers recognize it as a poison, and resist it with sufficient force to expel it from the vital domain, and this action is stimulation. It is really poisoning, and nothing else; therefore, if there is no best poison, there can be no best stimulant."

Still the use of stimulants like tea, spices, etc., is common among many of those who advocate the strictest temperance with regard to alcohol. The excuse may be made that tea *may* be nutritious; but people do not pay one dollar a pound or more for tea when flour can be had for five cents, on account of any nutritive quality existing in the dried leaves. They buy it because it contains *that which makes it good*, viz.: its stimulating quality.

The belief is almost universal that a stimulant of some kind is necessary to health and vigor, and hygienists who live without them are regarded by such as fanatics. When people come to believe that the human system is sustained by simple food and drink alone, then we can teach temperance in the worst stimulants and narcotics like alcohol, tobacco, and opium, without the seed falling on barren and stony ground, or by the wayside.

It would fill a volume to trace out the different ways in which stimulants encourage every vice, and lay the foundation for every crime known among men, and in whatever light we view their effects, we must consider them an unmitigated curse to mankind.

W. V. HARDY.

N. E. Hygeian Home, Concord, Vt.

Potato Bugs and Poison.

SHOULD poison be used to rid our vines of the pest of the Colorado potato bug? We think not. The leaves are the lungs of the plant. A great deal of nourishment is also taken through the leaves. If this is not the case, why do the bugs injure the potatoes by eating the leaves? To prove this more fully, the earth in a box has been weighed, and a young plant set in the box. After the plant had attained full size, and the weight of several pounds, it was removed from the box and the earth weighed, which showed a deficit of but a few grains from its first weight; thus proving that much of the nourishment of the plant was derived from the air, through the leaves. The heavy dew that falls during the night is taken into the circulation of the plant, through the leaves, and often a plant is as much invigorated in this way for a few hours as if there had been a shower.

If Paris green—of which the principal ingredient is arsenic—or any other poison, be used upon the leaves, it must certainly be taken into the circulation of the plant, and a portion of it at least lodge in the potato.

This is not the only danger. I have seen accounts of persons who have inhaled the poison while sprinkling it upon the vines, ruining their health, and sometimes causing death. Others have used it, and eaten the potatoes, and because they could not perceive any immediately perceptible injury, have said that it injures no one. But, although arsenic may be taken in small quantities for a long time and not produce death, yet we will all agree that it is very injurious.

But what shall we do with the bugs? When they come on in the spring, they can be kept off by paying a little attention, and picking them off every day or two, and destroying the eggs on the leaves. If, by any means, they should get the start, send a boy into the field with a pan and stick. By holding the pan under the vines and rapping them with a stick, the bugs will drop into the pan, when they can be destroyed. By following this plan for a few days, the vines can be entirely rid of them. I have often gathered a pint in a few minutes where they were plenty.

J. E. WHITE.

The Health Reformer.

Battle Creek, Mich., August, 1872.

Flesh as Food;

OR THE TEETH OF MEN AND ANIMALS.

It did not enter into God's plan at the creation that a single drop of blood, from any living creature, should be shed. Flesh was not designed as food for man, or for the beast. "And God said, Behold, I have given you every herb bearing seed, which is upon the face of all the earth, and every tree, in the which is the fruit of a tree yielding seed; to you it shall be for meat. And to every beast of the earth, and to every fowl of the air, and to every thing that creepeth upon the earth, wherein there is life, I have given every green herb for meat." Gen. 1:29, 30. In the absence of any statement whatever that flesh was to constitute any portion of the food for man, or for any other living creature, the text quoted fully sustains the foregoing propositions.

The voice of inspiration, that "God is love," will be clearly recognized where his great designs are not misunderstood. He is not the author of pain and of death. In creation, the beneficent Creator did not design that the creatures of his hand should writhe in pain, and their existence close in the agonies of death. Pain and death, under which "the whole creation groaneth and travaileth," are the result of transgression. Had sin not entered our world, death and pain would not have existed, a single drop of blood would not have been shed, and flesh never would have constituted any portion of the food for man, or for the beast.

The foregoing propositions will be more clearly understood when the subject is viewed from the standpoint of the restitution. That which was lost in Adam, will be restored in Christ to those who believe on him. God made the world all glorious for Adam, and designed it for his eternal inheritance. Sin entered, and the curse followed, upon man, and the earth, and all upon it. The proposition of the Redeemer of that which was lost by sin is in these words, "Behold, I make all things new." It is not that he should create all new things for the redeemed, or as the poet sings:—

"Beyond the bounds of time and space,
Look forward to that heavenly place,
The saints' secure abode."

No. The Redeemer will, at his second advent to this world, remove the curse, put an end to death and pain, and redeem his people to the enjoyment of life eternal. Then will the earth, and every living being upon it, be restored to the condition of things before the fall. "And God shall wipe away all tears from their eyes; and their shall be no more death, neither sorrow, nor crying, neither shall there be any more pain; for the former things are passed away. And He that sat upon the throne said, Behold, I make all things new." Rev. 21:4, 5. The very words, redemption, and restitution, convey the double idea of carrying things back from the present bad state to their original condition.

Then, as in the restitution, pain and death—one portion of God's living creatures taking the lives of others, and subsisting upon them—did not enter at all into the divine plan. These, with the entire habit of using flesh as food, are the result of sin. Flesh-eating being of so doubtful origin, its continued practice, especially by those who look upon sin with abhorrence, and seek for purity and true holiness, may with propriety be called in question. Those who "seek for glory, honor, immortality, eternal life," will wisely and safely come as near as possible in conformity to God's original plan when all creation was robed in spotless purity.

Those who urge that the structure of the human teeth indicates that man was designed to subsist, in part at least, upon the flesh of God's living creatures are invited to a careful reading of the article that follows this, entitled, The Human Teeth. It is taken from the Science of Human Life, by Sylvester Graham. The subject is there so fully and successfully treated as to make any further remark in refutation of the popular objection to the vegetarian diet wholly unnecessary.

But the attentive reader will observe that our position upon this subject, that it was not the design of the Creator that a drop of blood of any living creature should be shed, reaches further than that of Dr. Graham. He labors to show, by comparing the human teeth with those of flesh-eating animals, that man was not designed to eat flesh. In this, he virtually admits that, while the Creator formed the human teeth for a vegetarian diet, he did form the teeth of

certain animals to devour others. This makes death and pain a part of God's original plan.

Before adopting the position that the Creator designed that a portion of his living creation should devour another portion, making him the author of death and of pain, and thereby virtually impeaching his character, the reader will please carefully consider the subject in the light of the following facts:

1. The curse, in consequence of transgression, embraced great changes. The man was sentenced to a life of wearisome toil, the woman to pain, and the earth to bring forth thorns and thistles. Changes, then and there, in the structure of the teeth, digestive organs, &c., of certain animals would have been a miracle of no greater magnitude than those recorded changes in the representatives of the race, and in the products of the earth.

2. God did say, that to *every beast*, to *every fowl*, and to *every thing that creepeth upon the earth, he had given every green herb for meat.* We necessarily conclude that Infinite Wisdom did provide the beasts with teeth, &c., suitable to their food; therefore changes have taken place, either immediately after the fall, or from habit, by gradual processes.

3. The condition of things in the restitution, showing what it was at creation, beautifully sets forth the original design. "The wolf also shall dwell with the lamb, and the leopard shall lie down with the kid; and the calf and the young lion and the fatling together; and a little child shall lead them. And the cow and the bear shall feed; their young ones shall lie down together; and the lion shall eat straw like the ox." Isa. 11: 6, 7.

THE HUMAN TEETH.

In the human head there are thirty-two teeth: eight incisors, four cuspids or eye-teeth, eight bicuspids or small cheek teeth, and twelve molars or large cheek teeth; and the teeth of each jaw, in a perfectly normal state, form an uninterrupted series, in close juxtaposition, and all of nearly equal length. In this particular, man differs from all other animals. For even in the species nearest to man, there is a considerable space between the front and the corner teeth; while in many other species, both of carnivorous and of herbivorous animals, the space is still greater, both between the incisors and the cuspids, and between these latter and the cheek teeth. Carnivorous animals have in each jaw six incisors or front teeth, two cuspids, and from eight to twelve cheek teeth. Gnawing animals, such as the rat, the beaver, the squirrel, etc., have two incisors in each jaw, no cuspids, and from six to ten cheek teeth. Ruminating animals without horns, such as the camel, dromedary, etc., have two upper and six lower incisors, from two to four cuspids, and from ten to twelve cheek teeth, in each jaw. Ruminating animals with horns, such as the ox, sheep, etc., have no upper incisors, eight lower incisors, no cuspids; except in the stag, which has them in the upper jaw, and twelve cheek teeth in each jaw. Animals with undivided hoofs, such as the horse, have six incisors in each jaw, two cuspids in the upper jaw, none in the lower jaw, and twelve cheek teeth in each.

The body of the human tooth above the gum consists of dense bone, which is everywhere covered on its external with a plate of enamel. In this respect, man resembles both carnivorous and frugivorous animals, and differs from the purely herbivorous, whose teeth are composed of intermixed layers of bone and enamel.

The incisors or front teeth of the human head are broad, flat, chisel-shaped teeth, designed to cut the substances on which man feeds into convenient masses for the action of the cheek teeth. The front teeth of carnivorous animals are more rounded and pointed, and stand further apart, and bear no resemblance to those of man. The incisors or front teeth of herbivorous animals are broad like those of the human head; but they are in general much stronger, and the cutting ends are considerably thicker and more blunt; and in some species they vary almost as widely from those of men as the front teeth of carnivorous animals do.

The corner or eye teeth in the human head, technically called the cuspidati, or cuspids, are usually of the same length of crown as the front teeth, and stand close to them. They approach more to a point than the front teeth; but their peculiar shape indicates nothing more than that they constitute the first steps of transition from the chisel-shaped cutting teeth in front, to the large, square, grinding teeth in the back part of the jaws. The cuspids or tusks of carnivorous animals are round and pointed, and much longer and stronger than the front teeth, and are separated by a considerable space both from the front and cheek teeth. In some species, these teeth are very long, acuminated, and powerful, and are obviously fitted to serve as weapons of offense and defense, and may be used also to seize, hold, and tear, the prey. Some of the herbivorous animals, such as the horse, the camel, and the stag, have the cuspids, and they are proportionally longer, and more pointed and powerful, than the corner teeth of the human head, and are separated from the other teeth by a large space. In the camel, the cuspids bear a strong resemblance to those of predaceous animals, and appear to be designed for weapons of offense and defense.

Between the cuspids of carnivorous animals and the corner teeth of the human head, there is not the slightest resemblance! not even enough for sober fancy to build an analogy upon; and yet the *assumed* resemblance of the eye-teeth of man to the cuspids of carnivorous animals has been the principal evidence urged to prove the natural flesh-eating character of man. But if it were true that this assumed resemblance had some reality, the argument founded upon it to prove man to be naturally in some measure a flesh-eating animal, would equally prove that the horse, and camel, and other species of herbivorous animals, naturally require a still larger proportion of flesh-meat in their diet. According to this evidence, the camel of the desert is naturally as carnivorous as the dog. But the assumed resemblance between the eye-teeth of man and the cuspids of carnivorous animals has no reality, and therefore all the reasoning founded upon it, relative to the natural dietetic character of man, is utterly fallacious and destitute of any true ground of support. And this is so incontrovertibly, so palpably, correct, that it does not seem possible that scientific gentlemen who have repeated the whimsical speculation concerning the *canine* teeth of man, could ever seriously have examined the subject, or for one moment actually compared the eye-teeth of man with the cuspids of a common house-cat.

The bicuspids, or small cheek teeth of man, have two prominences, or obtuse points—the one on the outer and the other on the inner side of the mashing or grinding end; the outer one being generally somewhat more prominent than the inner. The molars, or large cheek or double teeth of man, have large and nearly square crowns, presenting broad mashing and grinding surfaces, with the corners slightly elevated, so as to form on each tooth four or five very blunt prominences, thus increasing the grinding and triturating power of the teeth. The bicuspids, or small cheek teeth of carnivorous animals, have two or three sharp points somewhat resembling saw-teeth; and these points are not situated side by side, or parallel with each other, like the blunt tubercles of the human bicuspids, but they are placed one before the other, like the teeth of a saw, and appear to be fitted wholly for cutting and tearing. The large cheek or double teeth of carnivorous animals rise into very high and sharp points, like those just described, only they are much larger and more prominent, the middle point of each tooth rising above the others like a spear. These teeth present nothing which approaches to a grinding or triturating surface; but, like the small cheek teeth, they are fitted for tearing and cutting, and cannot admit of the grinding or lateral motion. The molar or cheek teeth of herbivorous animals have very large, square, or oblong-square crowns; not, however, proportionally larger than those of man, but their construction is entirely different. They are composed of alternate longitudinal plates of bone and enamel, and the whole crown is surrounded on its sides with a plate of enamel, like human teeth; but the grinding surface is not covered by enamel, like human teeth, but presents the uncovered ends of the alternate, longitudinal plates of bone and enamel; and the plates of bone, being much softer than those of enamel, wear away much faster in mastication, and thus the plates of enamel are caused continually to be more prominent than those of bone, and thereby a roughness is given to the grinding surface which greatly increases its dividing and triturating power upon the grass, twigs, boughs, and other vegetable and woody substances on which herbivorous animals naturally subsist. In some species, the grinding surface is nearly flat; in others, the corners of the crown are considerably more elevated than the center.

The cheek teeth in the lower jaw of man shut against those of the upper jaw, so as to bring the grinding surfaces of the two series together, in opposition to each other, and thus mash and grind the substances which come between them in the act of mastication. In this respect man resembles herbivorous and frugivorous animals. But the cheek teeth in the lower jaw of carnivorous animals shut within those of the upper jaw; so that, if we take a pair of shears and file the two cutting edges into teeth like a saw, and then cut with them, we shall get a very good idea of the appearance and operation of the cheek teeth of carnivorous animals in the upper and lower jaws.

The manner in which these teeth shut together fits them still further for cutting the flesh, on which the animals feed, into small masses, preparatory to swallowing, and at the same time still further precludes all lateral or grinding motion in the act of mastication.

In herbivorous animals, the articulation or joint of the lower jaw is such as to admit of very free lateral motion in the act of mastication; as we see in the cow, and other ruminating animals, when chewing the cud. In man, also, the articulation of the under jaw admits of very considerable lateral motion of the jaw in the act of mastication, so that the grinding surfaces of the cheek teeth of the upper and lower jaws can move upon each other from right to left, and from left to right, and thus completely triturate or grind the food into very minute particles before it is swallowed. But in carnivorous animals, all lateral motion of the lower jaw in the act of mastication is not only precluded by the structure of the teeth and the shutting of the lower cheek teeth within those of the upper, but it is rendered impossible by the articulation of the lower jaw, which only admits of the backward and forward motion. In all these animals, the muscles by which the motions of the lower jaw are effected, correspond with the articulation. In carnivorous animals, the

muscles by which the lower jaw is raised up and the teeth shut together in the act of cutting or tearing the food, are very large and powerful; but those muscles which correspond with those in herbivorous animals by which the lateral motion is effected, are exceedingly small; while in herbivorous animals, the muscles of lateral motion are largely developed, and those by which the under jaw is raised up are comparatively much smaller than in carnivorous animals. In this respect again, as in the articulation of the under jaw, man closely resembles herbivorous animals, and differs entirely from the carnivorous.

Such is a faithful and true comparison of the masticatory organs of man with those of carnivorous and herbivorous animals; and every one who will take the trouble to examine these organs in a house-cat, in a horse or cow, and in the human head, and compare them together, will find a complete demonstration of what I have stated. We see, therefore, that there is no resemblance between the masticatory organs of man and those of carnivorous animals. The latter are fitted to seize and hold the struggling prey, to tear the tenacious flesh from the bones, and to cut it into masses small enough to be swallowed; and being thus swallowed in raw masses into stomachs formed to receive it in such a condition, it passes less rapidly through the gastric cavity, and consequently sustains the animal a longer time, and causes a less hasty return of hunger than if the flesh were finely comminuted or ground by the teeth. But the masticatory organs of man are fitted to cut the food into masses suitable to the capacity and operations of the mouth, and to grind those masses into fine particles and thoroughly mix them with the saliva, and thus bring the food into precisely that condition which best fits it for the human stomach.

Nothing is more incontrovertibly true, then, than that, so far as the masticatory organs are considered, comparative anatomy does not afford the slightest evidence that man is in any measure a carnivorous animal; and I am bold to affirm that such an idea never was drawn from any actually perceived resemblance between the masticatory organs of man and those of carnivorous animals, but it was derived entirely and exclusively from the dietetic *habits* of man; and being thus derived, it gave birth to the creative fancy which imagined and announced the resemblance, and this imagined resemblance has been confidently relied on by thousands, because they did not care to take the trouble to examine for themselves.

Between the masticatory organs of man and those of purely herbivorous animals, there is some resemblance, and, in some respects, that resemblance is strong; but the evidence is by no means sufficient to justify the conclusion that man is naturally herbivorous. So far as the masticatory organs are considered, then, comparative anatomy affords no conclusive evidence that man is naturally an herbivorous or grass-eating animal.

The salivary glands of herbivorous animals are, as a general fact, comparatively larger than those of carnivorous animals. In man, these glands are not proportionably so large as in the purely herbivorous, nor so small as in the carnivorous, animals; but they are exceedingly copious in their secretion, and therefore, in their physiological character, they approach nearer, in man, to those of herbivorous, than to those of carnivorous, animals. They are also more largely developed in those portions of the human family who have long subsisted on vegetable food than in those which subsist mostly on animal food.

As a general fact, herbivorous animals have a much longer alimentary canal than carnivorous animals, but this is not invariably the case. The hyena, which subsists on the dead carcasses of animals, eating both flesh and bones, has an alimentary canal of about the same comparative length as that of the horse, which is herbivorous. The seal and porpoise, which live wholly on animal food, have an alimentary canal twenty-eight times the length of the body, and this is equal to the greatest comparative length in herbivorous animals. "Many species of animals," says Carus, in his System of Comparative Anatomy, "which live entirely on animal food, have an extraordinary length of the alimentary canal, ranging from eleven to twenty-eight times the length of the body." Nevertheless, it is predicated, as a general law, by naturalists, that the average length of the alimentary canal is relatively much less in carnivorous, than in herbivorous, animals. In those animals which subsist wholly on animal food, the length of the alimentary canal varies from one to six or eight times the length of the body, as a general rule; but to this rule, as we have seen, there are some exceptions. In herbivorous animals with undivided hoofs, such as the horse, the canal varies from eight to eleven times the length of the body. In herbivorous animals that divide the hoof and chew the cud, such as the ox, deer, sheep, etc., the canal varies from eleven to twenty-eight times the length of the body.

In ascertaining the comparative length of the alimentary canal in all these animals, naturalists have taken the length of the body in a straight line from the snout to the posterior extremity of the back-bone, but in man they have measured from the top of the head to the bottom of the heel; and by this manifestly erroneous admeasurement, they have unfairly reduced the comparative length of the alimentary canal about one-half, and made it to appear that the comparative length of the alimentary canal in man varies from three to eight times the length of the body; and thus they have succeeded in associating man with carnivorous animals. But if the alimentary canal in man be compared with the length of the

body, in the same manner that it is in all other animals, it will be found that its average length is about ten or twelve times the length of the body. This is evidently the true admeasurement, and it is surprising that any other should ever have been adopted, even for the sake of supporting a favorite theory; and especially one so palpably unjust as that which has heretofore been allowed.

Carnivorous animals, as a general rule, have a simple stomach, which is not fitted to retain the food a very long time; while herbivorous animals have either a complicated stomach, or a simple one which is formed to retain its food much longer than that of carnivorous animals. The human stomach is simple, but not more so than that of the horse, and it is manifestly formed to retain the food for a considerable time. The colon or large intestine in carnivorous animals is never cellulated, but is always cylindrical, and comparatively much smaller than in herbivorous animals. In the latter, and especially where the stomach is simple, the large intestine is very capacious, and the cæcum is particularly large; and the colon, throughout its whole length, is gathered into sacs or cells by longitudinal bands. In man, the cæcum is large, and the colon is sacculated as in herbivorous animals. Indeed, the calibre or diameter of the whole alimentary canal is relatively much greater in man than in carnivorous animals; and moreover, the numerous semi-lunar folds in the mucous membrane of the small intestines of man very considerably increase the longitudinal extent of surface in the human alimentary canal.

We see, then, that in regard to the true comparative length, the capacity, and the conformation, of the alimentary canal, comparative anatomy affords not the slightest evidence that man is naturally, in any measure, a carnivorous animal; and although in most respects man very strongly resembles many of the species of herbivorous animals, yet, taking the masticating and digestive organs together, the evidences do not appear to be sufficiently complete and determinate to warrant the conclusion that man is naturally an herbivorous animal. If, however, we were obliged to class man either wi h carnivorous or herbivorous animals from the evidence of his alimentary organs, we should be compelled, by all correct principles in the science of comparative anatomy, to place him with the latter. But before we are driven to this necessity, it must be ascertained that in the whole animal kingdom there is no other order of animals besides the pure herbivora and carnivora, or none whose alimentary organs so nearly resemble those of the human body. But this is not true, and therefore we are bound to look still further for alimentary organs with which we can compare those of man, before we come to a final conclusion in regard to man's natural dietetic character.

It is said that no one claims man to be a purely *carnivorous*, but an *omnivorous*, animal, and that his organization shows him to be designed to feed on both animal and vegetable food. Then let us ascertain whether there is any other animal in nature which is truly omnivorous, and if so, let us compare the alimentary organs of man with those of such an animal. We need not go far to find an animal of this description. Both the hog and the bear are naturally omnivorous; that is, in a pure state of nature, when left to their natural instincts, they will eat both vegetable and animal food. It is important to remark, however, that in a perfectly pure state of nature, when free to choose their aliment, and with an abundance before them, they both greatly prefer vegetable to animal substances; and neither of them, in such a state, ever preys upon living animals, unless urged by pinching hunger. Their most natural food, therefore, appears to consist of fruits, nuts, roots, grain, and other products of the vegetable kingdom. Yet, strictly speaking, they are omnivorous animals, and are organized accordingly.

Let us then compare the alimentary organs of man with those of the swine. We perceive at a glance that there is little resemblance between the front teeth of the hog and those of the human head, and still less between the eye-teeth of man and the tusks of the hog. The bicuspids, or small cheek teeth of the hog, are almost exactly like those of carnivorous animals, but have not the most remote resemblance to those of the human head. The molars, or large cheek teeth of the hog, on the other hand, have no resemblance to those of carnivorous animals, but are exceedingly like those of the human head. This comparison, therefore, does not in the smallest degree show man to be naturally an omnivorous animal. The only teeth in the hog which have any resemblance to human teeth, are the large cheek teeth, and these do not indicate a carnivorous, but a frugivorous, character. The whole force of evidence derived from the masticatory organs of the hog, therefore, goes to prove that man is in no measure a flesh-eating animal.

The digestive organs of the hog more strongly resemble those of man; but when these are taken in connection with the masticatory organs, which constitute the principal anatomical index of the dietetic character, and also in connection with the fact that in a pure state of nature the hog prefers vegetable food, and principally subsists on it, and requires no animal food for the fullest and most perfect development and sustenance of its anatomical structure and physiological powers, the whole force of evidence still goes to prove that man is not naturally, in any measure, a flesh-eating animal.

We therefore remain without a determinate solution to our question, and are called upon to push our investigations still further in pursuit of more decided and conclusive evidence. And,

fortunately for us, that evidence is near at hand, and just where we should expect to find it, and where we ought first to have looked for it, and where we *should* first have looked for it, if our minds had neither been sophisticated nor misled by education, custom, and depravity. In the order next below man, we find several species of animals whose alimentary organs in all respects very nearly resemble those of the human body; and in the species which comes nearest to man in general organization and appearance, the alimentary organs in almost every particular so nearly resemble those of the human body that they are easily mistaken for them. And few, who are not in some measure acquainted with comparative anatomy, would be apt readily to detect the distinguishing differences. The number and order of the teeth in the orang-outang are the same as in man. The incisors or front teeth are precisely like those of the human head; the cuspids or corner teeth are relatively longer and more pointed, and are separated from the other teeth by small spaces, and in all respects approach much more to the appearance of the cuspids of carnivorous animals than the corner teeth of man do. The cheek teeth, like the incisors, so much resemble those of the human head that it is difficult to distinguish them. The only difference is that the elevations on the grinding surfaces of the orang-outang's teeth are somewhat more prominent and pointed. The articulation of the under jaw, the form of the stomach, the comparative length of the alimentary canal, the relative capacity of the cæcum, and the cellular arrangement of the colon, in the orang-outang, all likewise correspond very closely with those of the human body. As a general statement, however, the comparative length of the alimentary canal is somewhat greater in man than in the orang-outang. Excepting, then, that the cuspids are relatively longer, and more pointed and separate, and the cheek teeth somewhat more trenchant, and the alimentary canal rather shorter, in the orang-outang than in man, the resemblance between the alimentary organs of these two species of animals is perfect.

In the other species of monkeys the cuspids are relatively longer and more pointed, and the cheek teeth more trenchant and sharp-pointed at the corners than in the orang-outang. In the baboon the cuspids are large, long, and powerful weapons of offense and defense, and in all respects resembling the corresponding teeth in purely carnivorous animals.

In strictest accordance with the established principles in the science of comparative anatomy, then, the alimentary organs of the orang-outang, are to be regarded as the true type with which we are to compare those of the human body, in order to ascertain the natural dietetic character of man. But we have seen that in all that the organs of the orang-outang differ from those of man, they bring the orang-outang between man and carnivorous animals, and thus, as it were, push man still further from a carnivorous character. Yet it is well known that not only the orang-outang, but all the other species of monkeys are, in a perfectly pure state of nature, when left free to choose their own nourishment and follow their undepraved instincts, wholly *frugivorous* or fruit-eating animals, subsisting exclusively on fruits, nuts, and other esculent farinaceous vegetables. And they never, in such a state of nature, feed on animal food, except in circumstances in which even the cow and the sheep become carnivorous; viz., when suffering from extreme famine, and goaded on by excessive and tormenting hunger. In such emergencies, monkeys, cows, sheep, and probably most other animals, will greedily devour such animal substances as fall in their way, or such as they are able to obtain.

It is said that the orang-outang, on being domesticated or brought under the care of man, readily learns to eat animal food, and soon discovers more fondness for it, and devours it more greedily, than it does any kind of vegetable food; and hence, it is inferred that this animal is naturally omnivorous, and confines itself to fruits, etc., in a state of nature, only because it is unable to procure animal food in a condition adapted to its organization and alimentary wants. But this inference involves a monstrous absurdity; for it assumes that God has constituted an animal with certain alimentary wants, and endowed it with corresponding instincts, without giving it the necessary mental and voluntary powers to obey those instincts and supply those wants. Besides, if the fact that the orang-outang readily learns to eat animal food proves that animal to be naturally omnivorous, then the horse, cow, sheep, etc., are all naturally omnivorous animals; for every one of them is easily trained to eat animal food, and to subsist on a mixed diet. Indeed, they readily become so accustomed to this artificial mode of living as greatly to prefer their prepared dishes of beef-stake, toast and coffee, to their own natural diet of grass or hay and water. "In Norway, as well as in some parts of Hadramant and the Coromandel coasts, the cattle are fed upon the refuse of fish, which fattens them readily, but seems at the same time totally to change their nature, and render them unmanageably ferocious."* Horses have frequently been trained to eat animal food so as to demand it with great eagerness, and devour it greedily; and sheep have often been so accustomed to animal food that they would wholly refuse to eat grass. By this dietetic change, the physiological condition of the digestive organs may be so affected that if the animal be suddenly deprived of this diet, and exclusively confined to its own

* Life of Reginald Heber, Harper's Family Library, No. 40, p. 360.

natural and proper food and drink, it will at first droop exceedingly, and perhaps become sick, and in some instances die.

It is also true that the lion, the tiger, and other carnivorous and predaceous animals, may be trained to a vegetable diet, and learn to live on vegetable food alone; and it is an interesting fact that if the young of these animals be taken before they have ever tasted flesh and carefuly trained to a vegetable diet till they are grown up, they will discover no desire for flesh-meat. A friend of mine took a young kitten, and carefully trained it to a vegetable diet. It did well, and became a fine cat, remarkable for its strength and activity. When it was fully grown, flesh was put before it, but the cat would not touch it; and although the cat was an excellent mouser, yet it was never known to devour or eat any part of its prey; but, having killed the rats and mice which it caught, it would always bring them into the kitchen and lay them down at the feet of some member of the family, and there leave them. By slow degrees, however, this cat was trained to eat a portion of flesh with its dinner, and after a while appeared to relish it well; yet if flesh were offered to it in the morning or evening, it would not touch it; and this cat continued to refuse flesh-meat at all other times except at its dinner. Since this experiment, several others have been made with similar results. In one instance, after the cat was grown up, it was occasionally fed with flesh, and was invariably made sick by it.

In this manner, all carnivorous animals, among beasts and birds,* can be trained to a vegetable diet. And it is worthy of remark that this class of animals can be brought to subsist exclusively on vegetable food with less physiological inconvenience and greater safety to life and health, and much less deterioration of the constitution as a permanent effect, than herbivorous and frugivorous animals can be brought to live exclusively on animal food. Hence, therefore, if the fact that the orang-outang and other species of monkeys can be trained to subsist on a mixed diet of vegetable and animal food proves them to be naturally omnivorous, then it is equally proved that the lion, tiger, cat, eagle, and other predaceous animals, and the horse, cow, sheep, and other herbivorous animals, are all naturally omnivorous. But no enlightened and honest mind will for a moment admit that any of these animals are naturally omnivorous.

It is therefore perfectly certain that the whole evidence of comparative anatomy, when correctly apprehended and accurately estimated, goes to prove determinately that man is naturally a *frugivorous* animal. And thus it appears that the true evidence of comparative anatomy and the ancient Mosaic record of the natural history and dietetic character of man perfectly agree. That record explicitly asserts that in the truly natural state of man, ere he had transgressed any of the laws of his nature, he subsisted, according to divine adaptation and appointment, wholly upon the fruits of trees and the seeds of herbs, or upon fruits and farinaceous vegetables.

For more than two years, I had, in my public lectures, presented the foregoing arguments in regard to the natural dietetic character of man, before I was aware that similar views had been published by others; as my own knowledge on the subject had been derived almost entirely from actual examinations in comparative anatomy, and from the oral information of living travelers. I have since, however, in the course of my general researches, most unexpectedly and agreeably fallen upon the testimony of several distinguished men, which, so far as the evidence of comparative anatomy is considered, fully corroborates my reasonings and conclusions. The sum of that testimony I shall therefore now present, not because I think truth is rendered the more valuable by the adjunct of even the most distinguished of human names, but because I am fully aware of the deeply humiliating fact that mankind generally are far more ready to bow to the authority of a name than to yield to the evidence of truth. Before an individual has gained a moral sovereignty over the minds of his race, his evidence, however incontestible, and his reasoning, however irrefragable, are weighed and measured by the obscurity of his name; and he is sneered at as being contemptible in proportion as his opinions lack the authority of great names. In this state of things, integrity, research, science, philosophy, fact, and truth, are no shield against the misrepresentations, ridicule, and abuse, which are heaped upon him. But if by any means he can gain a conquest over men's minds, he may sit down upon the throne, and wield the scepter of intellectual despotism; and then his word is law, to which mankind submit with zealous alacrity, as if each were emulous to be nearest to the chariot-wheels of such a despot, in his triumphal progress through the world; while few concern themselves to inquire whether that word of authority is sustained by truth or not. Nevertheless, such are the scientific attainments and the general knowledge and integrity of some men that their opinion on subjects to which they have given great attention is worthy of high consideration; and when such men are compelled by the force of irresistible evidence to come to conclusions and acknowledge principles which do not accord with their preferences, nor correspond with their practices, the testimony merits a still higher respect.

Linnæus, the distinguished naturalist who flourished about one hundred years since, speaking of the natural dietetic character of man, says that his organization, when compared with that of other animals, shows that "fruits and esculent vegetables constitute his most suitable food."

* The eagle has been trained to live entirely on vegetable food.

Sir Everard Home says, "While mankind remained in a state of innocence, there is every ground to believe that their only food was a produce of the vegetable kingdom."

Baron Cuvier, who is, perhaps, the highest human authority on any question in comparative anatomy, says, "The natural food of man, therefore, judging from his structure, appears to consist of fruits, roots, and other succulent parts of vegetables; and his hands offer him every facility for gathering them. His short, and moderately strong, jaws on the one hand, and his cuspidati being equal in length to the remaining teeth, and his tubercular molars on the other, would allow him neither to feed on grass nor devour flesh, were these aliments not previously prepared by cooking."

Professor Lawrence, of England, agrees fully with Baron Cuvier, and justly observes that "physiologists have usually represented that our species holds a middle rank in the masticatory and digestive apparatus, between carnivorous and herbivorous animals; a statement which seems rather to have been deduced from what we have learned by experience on this subject than to have resulted fairly from an actual comparison of man and animals." After having accurately compared the alimentary organs of man with those of carnivorous, herbivorous, and frugivorous animals, he correctly remarks that "the teeth of man have not the slightest resemblance to those of carnivorous animals, except that their enamel is confined to the external surface. He possesses, indeed, teeth called canine; but they do not exceed the level of the others, and are obviously unsuited for the purposes which the corresponding teeth execute in carnivorous animals. Whether, therefore, we consider the teeth and jaws, or the immediate instruments of digestion, the human structure closely resembles that of the simiæ, or monkeys, all of which, in their natural state, are completely frugivorou s"

Mr. Thomas Bell, lecturer on the anatomy and diseases of the teeth, at Guy's hospital, and surgeon-dentist to that institution, in his "Physiological Observations on the Natural Food of Man, Deduced from the Character of the Teeth," says, "The opinion which I venture to give has not been hastily formed, nor without what appeared to me sufficient grounds. It is not, I think, going too far to say that every fact connected with human organization goes to prove that man was originally formed a frugivorous animal, and therefore probably tropical, or nearly so, in his geographical situation. This opinion is principally derived from the formation of his teeth and digestive organs, as well as from the character of his skin and general structure of his limbs. If analogy be allowed to have any weight in the argument, it is wholly on the side of the question which I have just taken."

The Reformer and the Reform.

THE readers of this article are familiar with the words that stand above as a heading. Their meaning is quite significant and quite honorable when properly applied. If engaged in carrying out a reform, it is a noble thing, for it means "to change from worse to better—to return to a good state; to amend; to correct." Surely it is a noble thing to be a reformer; for, to change from worse to better is always ennobling. If our monthly journal is entitled to appropriate this appellation because it sets forth doctrines designed to cause us "to return to a good state," it has a name of which we need not be ashamed.

Reform, of course, may be in various directions. We all believe that reform in morals is most important. A large body of men, embracing some of the most intelligent and noble-spirited in the world, devote their time, strength, and mental powers, to the work of persuading people to engage in this. May God speed them on in this good work. If faithfully done, it will entitle the ministry to the gratitude of mankind through never-ending ages. Amendment in habits of living we call Health Reform. The whole body of physicians ought to be devoted to this branch of reform. They ought to ardently engage in teaching the people proper habits of living that they might regain and preserve health as much as the ministry to teach the importance of regaining and preserving moral character. If the Chinese custom of paying their doctors only while enjoying health and cutting off supplies as soon as they got sick were adopted in our country, it would be likely to have the effect of awakening an interest in right habits of living among the medical fraternity. I should like to see it tried. What a fine thing it would be if in some way we could enlist all the ability, learning, and influence, of this profession in the true principles of health reform. It has been said that health reform is the basis of all reform. If this be true, the subject assumes an importance of immense magnitude. In that case, not only the doctors, but the ministers, and every one who has any regard for human happiness, should give it the benefit of their influence. Does any one doubt that habits of living are closely connected with morals? Is whisky-drinking conducive to piety? Does rich, highly-seasoned food beget coolness of temper or purity and chastity? We know it does not. Is a nervous system, full of aches, pains, and restlessness at night, calculated to give one a sense of gratitude to God, or cause an increase of domestic happiness, or make one's judgment clear and his conclusions sensible? If it is, let us all get sick as soon as possible, for these are good objects to be gained. If it is not, let us avoid the causes that lead to such a condition.

Is there a person so blind in this age of light as not to know that sickness is brought upon us

by some wrong course of action on our part or that of others, and that it is a consequence of wrong-doing in some way? Health reform is designed to teach us to "cease to do evil and learn to do well." It strikes at the root of the causes of sickness. It is not some patent nostrum that offers us the vain hope of enjoying health while living in constant violation of nature's law. It is guilty of no such arrant folly. It says, Do right, live, and be happy. It teaches us how to do it, and mercifully comes in after we have sinned, and offers us the best means available of getting out of our wretched condition and being whole again.

There are many of us who know by blessed experience that these things are so. Our memories are not so weak but we can look back a few short years (for health and happiness make the time fly swiftly) and realize a happy change for the better in our condition. The tobacco, tea, coffee, pepper, mustard, greasy pork, and their various associates, loom up before our mental vision, followed by a long train of evils, among which largely figure the headaches, disordered stomach, restless nights, feverish burning, shaky nerves, and all their unpleasant concomitants, winding up with doctors' bills, and alas! in many instances, with the shroud, the coffin, and the fresh mound in the graveyard.

Possibly some value the gratification of appetite more than these blessings, and will pursue their course in spite of our pleading. Some of us value these blessings, I trust, and feel determined that our influence shall count on the right side, and that we will do what we can to make others sharers in them. And while the devil is doing all he can around us to make vice attractive, clothing it in brilliant hues to catch the eye of the passer-by, and lure him down to ruin, shall we not arouse on our part and speak earnestly in behalf of virtue, of right habits, of truth? We have only to speak forth words of truth and soberness. We have no need of deception. Truth is beautiful, and will commend itself to the intelligence and conscience of men when set before them in ts own beautiful attractiveness. What is wanted is effort on our part corresponding with the importance of the great reform in which we believe. Money could not hire some of us to go back to former habits. We prize too highly the blessings we have gained. While there may be some who look back longingly to the leeks and onions of Egypt, we have seen the light of the promised land, and we propose to go on.

Reforms never go backward. The great principles of health reform are right; they are truth. Shall we do our duty in making them known? Some, to be sure, may have made mistakes and fallen into extremes. Never was there a reform in morals or religion but such things were seen. What of it? Did Martin Luther stop because these things existed? No. Neither should we. Let such correct their mistakes, and fall into line. The great army will move on, gathering in strength, wisdom, and magnitude, till its beneficence is demonstrated beyond contradiction.

The REFORMER is one of the leading instrumentalities through which light on this glorious subject is to be given to the world. How important that it should be full of *live matter*, of such a character as will cause reflection and conviction on the part of its readers. It has done a good work in the past. It has wonderfully improved in tone and power in the hands of those who have recently managed it. But there is a danger, while some of its leading contributors are more than occupied with other cares, and some are suffering from overwork, and scarcely able to write from this cause, our monthly journal shall not be what it ought to be. While such is the condition of some, there is the greater necessity of others arousing and feeling the importance of putting in their articles or selections. Quite a number who have contributed in the past are not doing so of late.

There is no lack of interesting subjects, experiences, and selections, from which to make it the most interesting health journal in our land, if the variety placed within reach of the editor, ready prepared for the printer, be large as it should be. The people are getting interested in this glorious subject. They begin to see that poisonous drugs do not contain the elixir of life, but rather the essence of the Upas tree, whose touch is deathly. Thousands have been blessed with the light we have received. Millions lie still in darkness upon this glorious subject. Let us all make an effort to send in articles full of life and sound logic, experiences full of truth and thrilling interest, selections of pith and vigor and good sense. Of these, the editors can make such a journal as will gladden all our hearts. It will give them courage to see our interest. They have earned our interest by their faithful labors in the past in this glorious cause. What if everything sent in should not be published? We shall have done our duty, and we should certainly permit them to select the best. Let us be faithful workers in this noble cause of health reform, and scatter the rays of light and truth all around. GEO. I. BUTLER.

Mt. Pleasant, Iowa.

AND now come those long trains again. We refer to the trains which the women wear, and which, we agonize to perceive, are once more coming into fashion. We had hoped—and so had every honest man, every patriot, every philanthropist, every well-wisher of his race—that the long-skirt nuisance would never again make its appearance in society. But here it comes. Oh! horror of horrors! Has not Chicago endured about enough for one year? We have had fires, and hurricanes, and a hard winter, and

small-pox, and mad dogs, and corrupt aldermen, and swindlers in the guise of charity, and almost every other conceivable annoyance and nuisance. But now, it seems, we are to be afflicted with the long-skirt mania, in addition to all the other abominations of the city. This looks like the last straw which breaks the camel's back. If the vertebral column of the city does not give way now, under this added pressure, its power of endurance must be indeed wonderful.—*Chicago Sun.*

Experience in Health Reform.

My experience in health reform has not been nearly what it should be, till within a few years past, six or eight; but my *experiments* on health date much further back. Some twenty-five years ago, I became, by reading and reflection, satisfied that vegetable food was preferable to animal, and also that bathing was quite an essential thing for the preservation of health. In those days, *cold* bathing was recommended, and though the use of cold water is now entirely discontinued, except in extreme cases of inflammation, in all hygienic institutions, yet in popular parlance these institutions are still "*cold* water cures." Starting with the new ideas I had received, I commenced experimenting. By discarding the use of flesh-meats and butter, and by bathing every morning in cold water, in summer and winter, I succeeded within the course of two years in reducing my weight from two hundred, in light, summer clothes, to about one hundred and eighty-five. I enjoyed myself well. The reaction after my baths was exhilarating. I would take my cold bath on rising, then go about some active employment, such as sawing wood, and in a few minutes the sweat would drop from my brow like sap from a maple tree.

But this was too heroic. The warmth of my system and its vitality were too largely drawn upon; and the sequel proved that I was preparing myself for that "cold plague," the "Asiatic cholera." Eating largely of milk, with its constipating tendency, had aided in preparing my system for the crash; and it was exemplified in my case, as I am told it is in all others, that habitual constipation will be followed, sooner or later, by a crisis—the pent-up accumulation of impurities must ere long find vent in some way; relief must be had in some way, or death must ensue. Nature will kindly make the trial, and we who have abused her must risk the consequences.

In my case, the time came for settlement. The cholera kindly undertook to better my condition at the risk of killing me in the attempt. It came very near doing the latter. There was but one step between me and death, and that a short one. It did not take me suddenly, with violent spasms, as it sometimes does; but came on comparatively moderate, beginning with an immoderate diarrhea, followed by vomiting profusely a watery substance which, I suppose, was no more nor less than the decomposition and discharge of the blood from the system. The stomach would fill with this fluid resembling rice water, and then be thrown out like water from a pump, with very little, if any, nausea. But then came the excruciating spasms in the muscles of my limbs and around the lock of the jaws. I was soon reduced to the helplessness of an infant, or of a person almost wasted away with consumption. My flesh had shrunk away, leaving my skin in wrinkles. My eyes sunk back deep into their sockets, for want of the supporting substance behind them, and I lay panting for breath, and scarcely able to stir hand or foot without assistance. I have no doubt that I lost full forty pounds in weight in the course of twelve hours; for I was weighed about a week before and weighed one hundred and eighty-four, and on the fourth day of my recovery I was able to get up and walk about the house, and weighed, in the same clothing only one hundred and forty-four.

Well, what was done for me? My good wife fell to nursing me to counteract the coldness that was coming upon me. She sent for a doctor, however, contrary to my wishes; but fortunately was not able to get him there, till my spasms had ceased, and I was evidently amending. He prescribed some little powders, which I was persuaded to swallow, and I could not discover that they did any good or harm. I give the praise of my recovery to God and the diligent hygienic nursing of my wife. My father came at my request and prayed with me, and told me I would recover. My wife steeped a large quantity of smart-weed and wrung, out of the hot liquid, strips of a bed-quilt and wrapped my limbs, which were growing cold, in these, exchanging them for hot ones every few minutes; and this fomentation she faithfully kept up until my spasms ceased and I began to amend.

I think now that hot water was the agency that was blest to my relief. The smart-weed I think did no harm. My recovery was rapid; for in two weeks I was swinging the grain cradle in the field.

Another person had the cholera in the town that year; and he was a long time in regaining his health. He contracted drug-disease enough on the occasion to last him a long time. It was a wonder to my neighbors that I should have the cholera, after having taken so much care for my health; and it was a wonder again that I recovered so soon.

God has added quite a number of years to my life, for which I would be thankful. Perhaps I will give another chapter of my experience hereafter.

R. F. Cottrell.

Blessings of Poverty.

GENERALLY, men do not love to be poor, nor to be compelled to raise their children in poverty; yet, along with its many inconveniences and disadvantages, poverty brings some great blessings which are denied to the children of wealth. Many an eminent man has in his latter years thanked Providence that he was raised a child of poverty. Indeed, it is a fact generally understood and well known, that a large proportion of the successful men, the bone and sinew of society, the men who have filled the important offices, men who have become eminent in religion, in politics, in science, or in any other branch of usefulness, in every age of the world, have been the children of poor parents. We are all familiar with such examples as Luther, Bunyan, Clarke, Milton, Goldsmith, Napoleon, Franklin, Lincoln, &c., &c. When we come to the strong men, the leading men, the active, business men, of our own nation, either in the present or the past, almost without exception they have been raised in poverty. At the same time, there have been thousands and even millions of others who have been raised in wealth, have had all the advantages that money and position could give, have been kept in school under the best of teachers, have been sent through colleges, and then started in business or in office by their wealthy parents. But where are they? What has become of them? Notwithstanding all these advantages, very few of them have attained to eminence. The great mass of them have soon failed and sunk down to the common level, while the sons of their poor neighbors and hired servants have risen above them, and taken the places of their fathers.

Now it is well for us to inquire, What is the reason of all this? There is a good and sufficient cause readily ascertained. First, look at the physical education of these rich children. As soon as they are born, they are tied up in bandages, smothered in clothes, kept in a close, hot room, away from the sun and the fresh air, and are dosed with cordials and soothing syrups. As soon as they are old enough, they are given strong tea and coffee, fed on pies and cakes, and all kinds of rich food. When allowed to go out of doors at all, they are carefully bundled up and "protected from the raw air and the scorching sun, lest they should catch cold or become tanned up." And when they do become the least ill, the doctor is sent for, and some medicine must be taken. Instead of walking, they ride; instead of working, they play; instead of developing a strong physical frame and sound health, they become proud of their weakness, and vain of their white hands and pale faces. Now how much life and energy, how much real, strong manhood or womanhood, such as the rough and tumble of this life requires, can be expected of such puny beings? When left to struggle alone with the storms of the world, they are soon overcome by men of stronger muscles and better material than themselves.

Now go to that poor man's house and see how his children are raised. (Many of us know full well without reading it in a book!) The mother's hands being full with other cares, the babe, not overburdened with clothes, is soon left to amuse itself the best way it can. True to its natural inclination, it is soon out of doors in the fresh air, with the warm, life-giving rays of the sun bathing its bare head and naked limbs. While it plays in the dirt, it receives electricity from the "mother earth." As soon as it can run, it exercises all its physical powers by running with the dog, or chasing the animals, climbing trees, &c. In this manner, sound health is secured and a strong physical frame is developed, while the brain is not overtaxed or prematurely developed. Being poor, the family live on the plainest kinds of food, simply prepared. The cakes, candies, and sweetmeats, which their rich neighbors have, these children seldom, if ever, *taste*, though they should long for them as the Jews did after the flesh-pots of Egypt, till their mouths water, and tears stand in their eyes. But these are the very things they do not need.

Instead of attending parties of pleasure, eating late suppers, and forming other bad and unhealthful habits, they of necessity are put to work. In this way they develop their strengh, harden their muscles, learn the value of time, and the worth of money, and require a self-reliant spirit that carries them nobly through the storms of life, and frequently to great eminence in the world.

Now these are facts which no one will deny—important facts, which should engage the careful attention of all who are raising children. All parents are anxious that *their* children shall succeed well in life; and yet most of them, when they are able, take the very course to defeat this desirable result. But a kind Providence, in mercy to the world, by the blessing of poverty and adversity, takes some children in each generation and makes strong men and women of them, who come up and fill the high and important stations in the world. So parents, children, and young people who are struggling with poverty, or are compelled to live in a very plain manner, ought not to murmur nor be discouraged, for this is the high road to final success and eminence if properly used.

The conclusion which I draw from these facts is this: Good health, physical strength, and a sound body, are necessary to success in life. These can only be obtained by temperance, by a plain diet, and by physical exercise. But those who are not compelled to live this way, seldom do it; and, hence, though they have every other advantage, generally fail, and amount to little in the world. If, then, poverty prepares us for usefulness, and consequently for the highest enjoyment of life, let us not murmur that Providence has placed us in this school.

D. M. CANRIGHT.

Use of the Compress.

SOME years since, Mr. ——, now a reader of the HEALTH REFORMER, took a severe cold from the use of quite warm water in bathing.

This cold took such a hold that the lungs were clogged for about eight weeks, and the sufferer was almost incapacitated for business; and he believes that serious injury was done to the lungs.

This cold was finally removed by cool compresses upon the chest and throat, used in the morning, before rising, for an hour or so, and this continued, for some days, until it was removed.

Since that time, he has used the compress whenever threatened with hoarseness, or trouble in the throat; and he finds no difficulty in removing obstructions of this kind, very speedily, by the use of this remedy.

Simple as this remedy may seem, the patient is confident that he feels the good effects of the compress, in causing the cold to relax its hold, in a very few minutes after it is applied.

JOS. CLARKE.

Neatness.

IN its essence, and purely for its own sake, neatness is found in few. Many a man is neat for appearance' sake; there is an instinctive feeling that there is power in it. When a man consults a physician or a lawyer for the first time, or comes to rent a house or borrow money, he will come in his best dress; a lady will call in her carriage. A man who means business and honesty comes as he is, just as you will find him in his store, his shop, his counting-house. The most accomplished gamblers dress well, the most enterprising swindlers are faultlessly clothed, but countless multitudes are but whitewashed sepulchers. Too many "do n't care, as long as it will not be seen." Washington Allston, the great artist, the accomplished gentleman, suddenly left his friend standing at the door of a splendid Boston mansion as they were about entering for a party, because he had just remembered that he had a hole in his stocking. It could not be seen or known, but the very knowledge of its existence made him feel that he was less a man than he ought to be—gave him a feeling of inferiority.

As persons are less careful of personal cleanliness and tidy apparel, they are infallibly and necessarily less of the angel, more of the animal; more under the dominion of passion, less under the influence of principle. Said a poor servant girl, "I can't explain what change religion has made in me, but I look more closely under the door mat when I sweep than I used to." Intelligence, culture, elevation, give purity of body as well as purity of sense and sentiment.

Where you see a neat, tidy, cleanly, cheerful dwelling, there you will find a joyous, loving, happy family. But if filth and squalor and a disregard for the refining delicacies of life prevail in any household, there will be found in the moral character of the inmates much that is low, degrading, unprincipled, vicious, and disgusting. Therefore, as we grow in years, we ought to watch eagerly against neglect of cleanliness in person and tidiness in dress.—*Hall's Journal of Health.*

FOOD FOR NERVOUS DYSPEPTICS.—Dyspeptics generally should adopt the two-meal-a-day system, and eat nothing whatever at any other time. Let the breakfast be composed of oat-meal mush quite dry, or oat-meal cakes and fruit, or unleavened graham bread or crackers and fruit. But one kind of fruit should be eaten at a meal, and that should be fresh and well ripened. For dinner, some of the articles mentioned for breakfast may be eaten, or some kind of vegetable that best agrees with the patient may be substituted for the fruit; no butter or greasy food of any kind, sugar, salt, spices, or condiments, should be used. The patient must eat slowly and masticate his food very thoroughly. There is no rule more important than this. He should drink nothing whatever at meals, or for two hours afterward. He should not eat more than two kinds of food at a meal, and should never eat when in the least tired or excited.—*Sel.*

A RECENT Chicago paper contained an editorial item headed, "Provisions," which read thus:—

"The stock of provisions in this city is 89,441 barrels of pork, 30,501 tierces of lard, 7,050,000 pounds of dry, salted shoulders, 5,065,000 pounds of clear rib middles, 2,000,545 pounds of short clear middles, and 10,964 tierces of sugar and pickled hams." Whereupon the *Sun* inquires: "And have we come to this? Is Chicago so demoralized, so badly used up, so lost to all sense of self-respect and municipal integrity, that its entire stock of 'provisions' is limited to hogs and hog product? If so, we may expect to hear more grunting in the city during the coming season than was ever heard before."

ONE of the graveyard firms of Memphis purloined, a few days ago, Hoofland's thunder in the following style. It was a fence advertisement:

USE		D	ORDER
HOOFLAND'S			Your
German		N	COFFINS
BITTERS	A		OF HOIST & CO.

HE that loses his conscience has nothing left that is worth keeping.

MRS. WHITE'S DEPARTMENT.

HAPPY HOURS.

I LOVE thee, nature—love thee well—
In sunny nook and twilight dell,
Where birds and bees and blossoms dwell
And leaves and flowers;
And winds in low, sweet voices tell
Of happy hours.

I love thy clear and running streams
Which mildly flash with silver gleams,
Or darkly lie like shadow dreams,
To bless the sight;
While every wave with beauty teems,
And smiles delight.

I love, I know not what, the best,
The little wood-bird in its nest,
The wave that mirrors in its breast
The landscape true,
Or the sweet flower by winds caressed,
And bathed in dew.

The clouds, the mist, the sunny air—
All that is beautiful and fair,
Beneath, around, and everywhere—
Were sent in love,
And some eternal truth declare
From Heaven above. —*R. C. W.*

The Mother's First Duties.

CLEANLINESS, neatness, and order, are indispensable to the proper management of the household. But when the mother makes these the all-important duties of her life, and devotes herself to them, to the neglect of the physical development and the mental and moral training of her children, she makes a sad mistake. The *Agriculturist* speaks well upon this subject under the head of

"UNPRINCIPLED NEATNESS.

"'Cleanliness is next to godliness;' but let us never forget that godliness is the first thing to be sought, and after that cleanliness to any extent. If anybody supposes that I mean that you are to 'get converted' in the ordinary sense of that phrase, and then go on scrubbing and scouring with all your might without any application of Christianity to these wash-board and dish-pan affairs, that person has not made my acquaintance. The 'fruit of the Spirit is love, joy, peace,' etc., and beyond all price; neatness is only a secondary matter.

"We are putting cleanliness above godliness if we brush and scour until our nerves are so wearied that good temper becomes almost a physical impossibility; or if we keep our friends in constant dread of making a speck of dirt upon our premises; or if we allow ourselves to be greatly put out by any disasters that happen to our carpets or table-cloths. It is hard to bear these things, if we have not abundant means and plenty of assistance; and I do not know of anything but a true philosophy, believed in by the heart, as well as by the intellect, that will help us through. Do we really desire to lead true lives, and to do our duty by our families? Then we must settle in our minds what are the essentials to this end, and resolutely make other matters subordinate.

"It is neatness without principle that insists upon clean aprons and polished faces for the children more than upon gentle words and patient sympathy with their plans and pleasures, which concerns itself more about flies and dust than about the family health and happiness. Bright windows and spotless paint and well-scoured floors are excellent things in their way; but if you can only secure them by a loss of all time and relish for reading and out-of-door recreation, have the nobleness to bear with some dirt and rags, rather than sacrifice the life for meat or the body for raiment. For the sake of all about you, as well as for your own sake, save your nerves from over-strain, and your intellectual life from starvation. But never sacrifice cleanliness to display. Those children are fortunate who are kept supplied with whole and clean clothing; but none of these things can begin to compare in value with a wise mother's love and care in respect to the formation of character and the development of a sound mind in a sound body. A husband has something to say 'thank you' for, whose buttons are never missing, and whose dinner is always in good time and good order; but he deserves to miss the best gifts of this life who values these things above a wife's companionship and inspiration in all things most lovely and of good report."

I have seen a mother whose critical eye could discern anything imperfect in the matching of the wood-work of her house, and who was very particular to have her house-cleaning thoroughly done at the precise time she had set, and would carry it through frequently at the expense of physical and spiritual health, while her children were left to run in the street and obtain a street education. These children were growing up coarse, selfish, rude, and disobedient. The mother, although she had hired help, was so much engaged in household cares that she could not afford time to properly train her children. She let them come up with deformity of character, undisciplined, and untrained. We could but feel that the fine taste of the mother was not exercised in the right direction, or she would have seen the necessity of molding the minds and manners of her children, and educating them to have symmetrical characters and lovely tempers.

If the mother had let these things which she has allowed to claim her first attention come in secondarily, she would have regarded the physical, mental, and moral training of her children of almost infinite importance. Those who take upon themselves the responsibility of mothers should feel under the most solemn obligation to God, and to their children, to so educate them

that they will have amiable and affectionate dispositions, and that they will be pure in morals, refined in taste, and lovely in character.

The mother loves her children. This is right. She cannot help it. But this love is frequently misapplied; for it leads her to indulge her children to their injury.

For years I have looked upon these children with feelings of sadness, sometimes repeating to myself these words, "That which ye sow, ye shall also reap." These children have needed the influence of a calm, well-balanced mind. The mother's time could not be more profitably spent than in seeking heavenly wisdom, and in studying how to train her children for God. If she would succeed, she should have a firm trust in God, and that cheerful, hopeful mind and peaceful temper which flow from pure, religious principles. Every effort made in this direction will repay her tenfold.

If mothers neglect to properly educate their children, their neglect is reflected back upon them again, making their burdens and perplexities harder than they would have been if they had devoted time and patient care in training their children to obedience and submission. It will pay in the end for mothers to make the formation of the characters of their children their first and highest consideration, that the thorns may not take root and yield an abundant harvest. God calls upon mothers to become co workers with him in the formation of the character of their children, instead of wasting their time in needless labor to make display in their houses for the eyes of visitors, while their children are coming up with characters that are warped and deformed. They are not trained for usefulness, and their minds molded, that they may have self-denial and self-control, having beautiful characters, that angels can love. The inward adorning, the ornament of a meek and quiet spirit, God values. In comparison with this, outward ornamentation is of but little consequence.

Mothers have a sacred mission in directing and educating the minds of their children. They should not be so engrossed with the artificial and burdened with care that they cannot have time to educate their children from God's great book of nature, impressing their young minds with the beauties of opening buds and flowers. The lofty trees, the lovely birds, caroling forth their happy songs to their Creator, speak to their senses of the goodness, mercy, and benevolence of God. Every leaf and flower, with their varied tints, perfuming the air, teach them that God is love. All that is good and lovely and beautiful in this world speaks to them of the love of our Heavenly Father. The character of God they may discern in his created works. Parents should improve every opportunity to impress their children by connecting in their minds God with the things of nature, that they may look up through nature to nature's God. Lead your children to regard God as the Creator of all things, and to reverence and fear him who is exalted above the heavens, and to love him because he first loved them. The evidences of his love they have on every hand, speaking to them through the glories of nature. Your temporal matters may be neglected rather than the heart wants and culture of the minds of your children.

E. G. W.

Rules for Preserving the Health.

1. NEVER go to bed with cold or damp feet. In going to a colder air, keep the mouth resolutely closed; by compelling the air to pass circuitously through the nose and head it may become warm before reaching the lungs, and thus prevent those shocks and sudden chills which frequently end in pleurisy, pneumonia, and other serious forms of disease.

2. Never sleep with the head in the draft of an open window.

3. Let more cover be on the lower limbs than on the body. Have an extra covering within reach, in case of a sudden and great change of weather during the night.

4. Never stand still a moment out of doors, especially at street corners, after having walked even a short distance.

5. Never ride near the open window of a vehicle for a single half-minute, especially if it has been preceded by a walk; valuable lives have thus been lost, or good health permanently destroyed.

6. Never put on a new boot or shoe when going on a journey.

7. Never wear India rubbers in cold, dry weather.

8. If compelled to face a bitter cold wind, throw a silk handkerchief over your face; its agency in modifying the cold is wonderful.

9. Those who are easily chilled on going out of doors should have some cotton batting attached to the vest or other garment, so as to protect the space between the shoulder blades behind, the lungs being attached to the body at that point; a little there is worth five times the amount over the chest in front.

MR. FIELDS, in his lecture on "cheerfulness," describes a man so shut in with dignity and exclusiveness that when you shake hands with him you always feel as if you were doing so through a knot-hole.

THE only way for a man to escape being found out is to pass for what he is. The only way to maintain a good character is to deserve it. It is easier to correct our faults than to conceal them.

HANDSOME apples are sometimes sour.

Items for the Month.

SPECIAL NOTICE!

TRIAL TRIP!

Four Months for Twenty-Five Cents.

We are determined to get the Reformer before the reading public. To do this more fully, we now make the following liberal offer: We will send the Reformer for the last four months of the present volume, beginning with the September number, for the small sum of twenty-five cents.

Every one who takes the Reformer has some friend or acquaintance before whom he should be anxious to place the Reformer. Now here is the opportunity. Every one can send one. There is no subscriber for the Reformer who cannot send at least one name of a friend, accompanied with twenty-five cents for a trial trip with us. Many can, and doubtless will, send more than one. Let the quarters come.

We are anxious to get this journal before your friends, and we are satisfied that after they have had a chance to examine it, they will not be induced to part with it lightly. We want to raise the subscription list of the Reformer for next year to 10,000. This is no hard task if each one will help a little.

We say again, Send in the quarters, accompanied with the names of those who are willing to examine.

Address Health Reformer,
Battle Creek, Mich.

Notices of the Press.

"Bright and sparkling as the sunbeams on the water comes the Health Reformer; in fact, as this little monthly grows older, it increases in interest. It is a book for the *people*, and already goes into more than 6000 families. No one can deny the truth of what it teaches, and we cannot call it anything less than an admirable, money-saving, and healthful messenger of reform."—*Athol Transcript.*

That brilliant western light, the Chicago *Sun*, says of the Health Reformer: "It is replete with interesting hints toward health, and useful scientific articles pertaining to physical culture. This excellent magazine is edited with vigor and ability. It is the best health journal we know of."

The *Herald of Life* (New York) says of the Health Reformer: "It contains many excellent articles on the important subject of health."

"Filled with good advice on the preservation of health and the treatment of disease."—*Belleville* (Ohio) *Weekly.*

"This exceedingly valuable health journal is again on our table, and we wish more of our readers had it for their families to read."—*Ontario Beaver.*

"It is filled with valuable reading matter."—*Toledo Sunday Morning Sun.*

"Interesting and useful."—*Pierce Co. Herald.*

Appreciative.—We are happy to note that the Reformer takes with the press. For instance, one editor in the Dominion prints seven articles from our columns in one issue. All right, brethren of the press, trust you will find more of the same in the present number. Let the light shine!

The *American Journal of Pharmacy* says that 150,000 infants are killed every year by the opium contained in the various kinds of soothing syrups which they are allowed, or rather forced, to drink.

Wanted: Five hundred new subscribers this month for the Health Reformer, one of the best health journals published, if we take the testimony of its readers and patrons.

"Too Muchee."—The five ladies with the Japanese embassy, at the suggestion of their American hostess, recently consented to be laced up and tied down, ruffled, paniered, flounced, bowed, and trailed, in the "style." Then they were powdered up from an orange-peel hue to a delicate lemon, and pronounced perfect, as far as dress goes. Half an hour later, however, their dismayed civilizers found them smiling and happy in their half-petticoat, half-pantaloon dress. When queried as to the cause of this sudden change, "Too muchee," said the gentle Japanese.

Query: Is it too late to learn something, even from the heathen?

The heated term will produce a great amount of sickness among those unacquainted with hygiene. To all such we would say, Send for the Health Reformer, published at Battle Creek, Mich. The subscription price is one dollar per year. It will teach you the best mode of regaining health and avoiding disease. Try it.

The total tobacco crop of this country in the year 1870, amounted to 273,775,500 pounds, valued at $32,206,325. Could land be put to a poorer use? How much better it would be to plant small fruits on it than this obnoxious weed.

Brain-work costs more than hand-work. According to careful estimates, three hours of hard study wear out the body more than a whole day of ordinary physical labor. One evidence of the art of brain-work is obtained from the fact that, though the brain is only one-fortieth the weight of the body, it receives one-fifth of all the blood sent by the heart into the system.

So says *Good Health* for July.

Says the Chicago *Post*, Queen Victoria reads the daily papers, thinks, talks, and writes on public affairs, practices the habits of a woman of business, and takes her beer with a regularity and precision that excites the admiration of all beholders.