

The organic laws, or, The laws which govern the human organism / by J. Bradford Sax.

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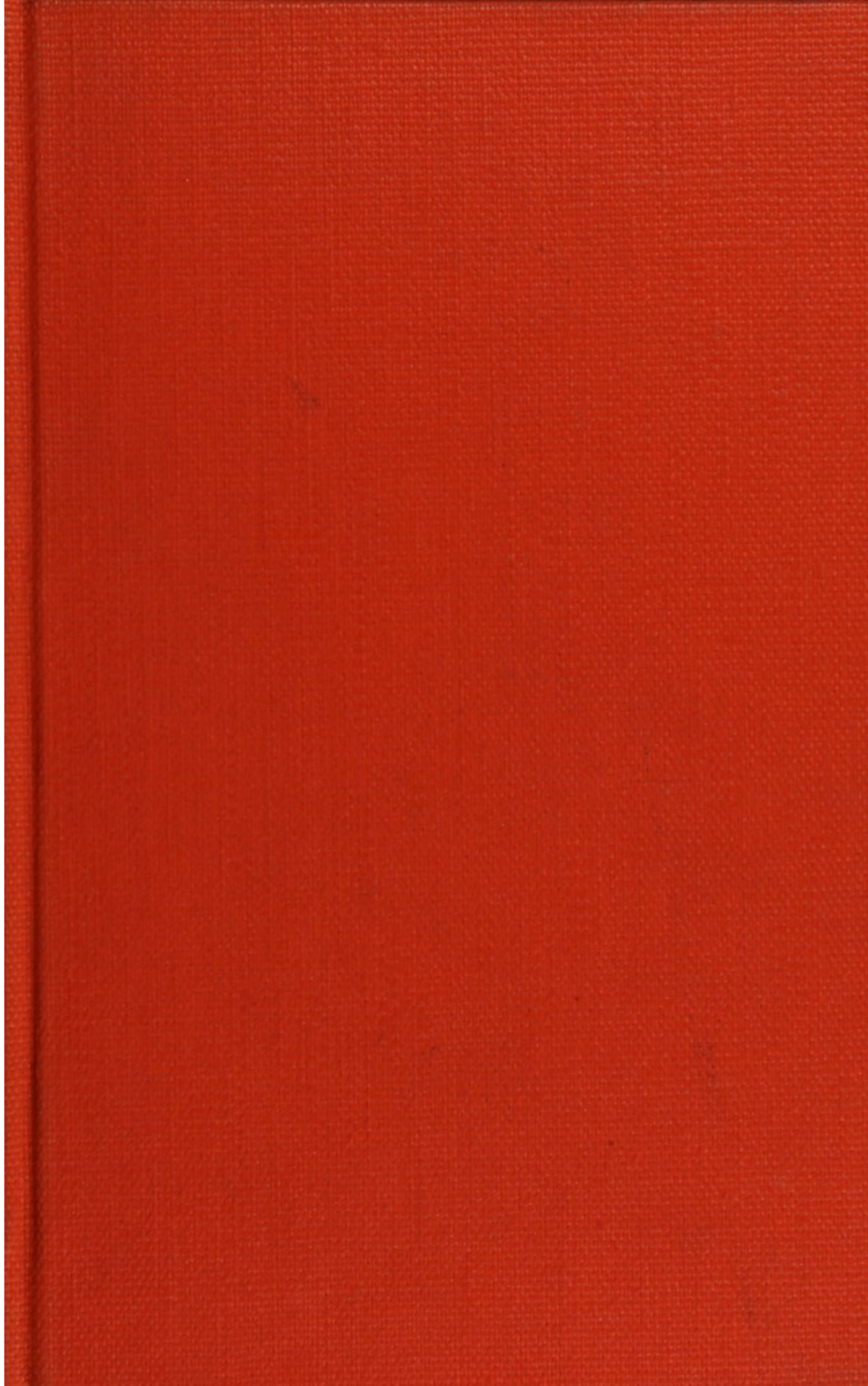
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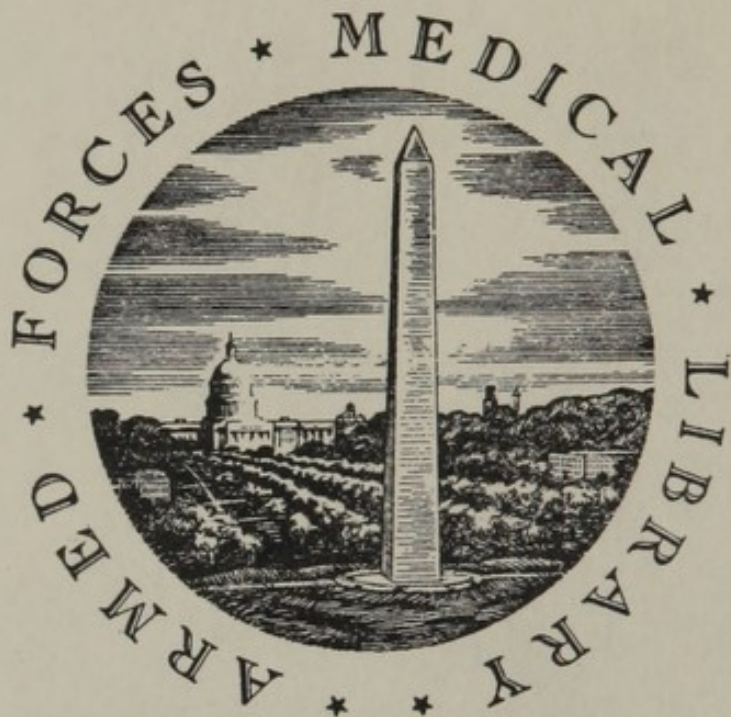
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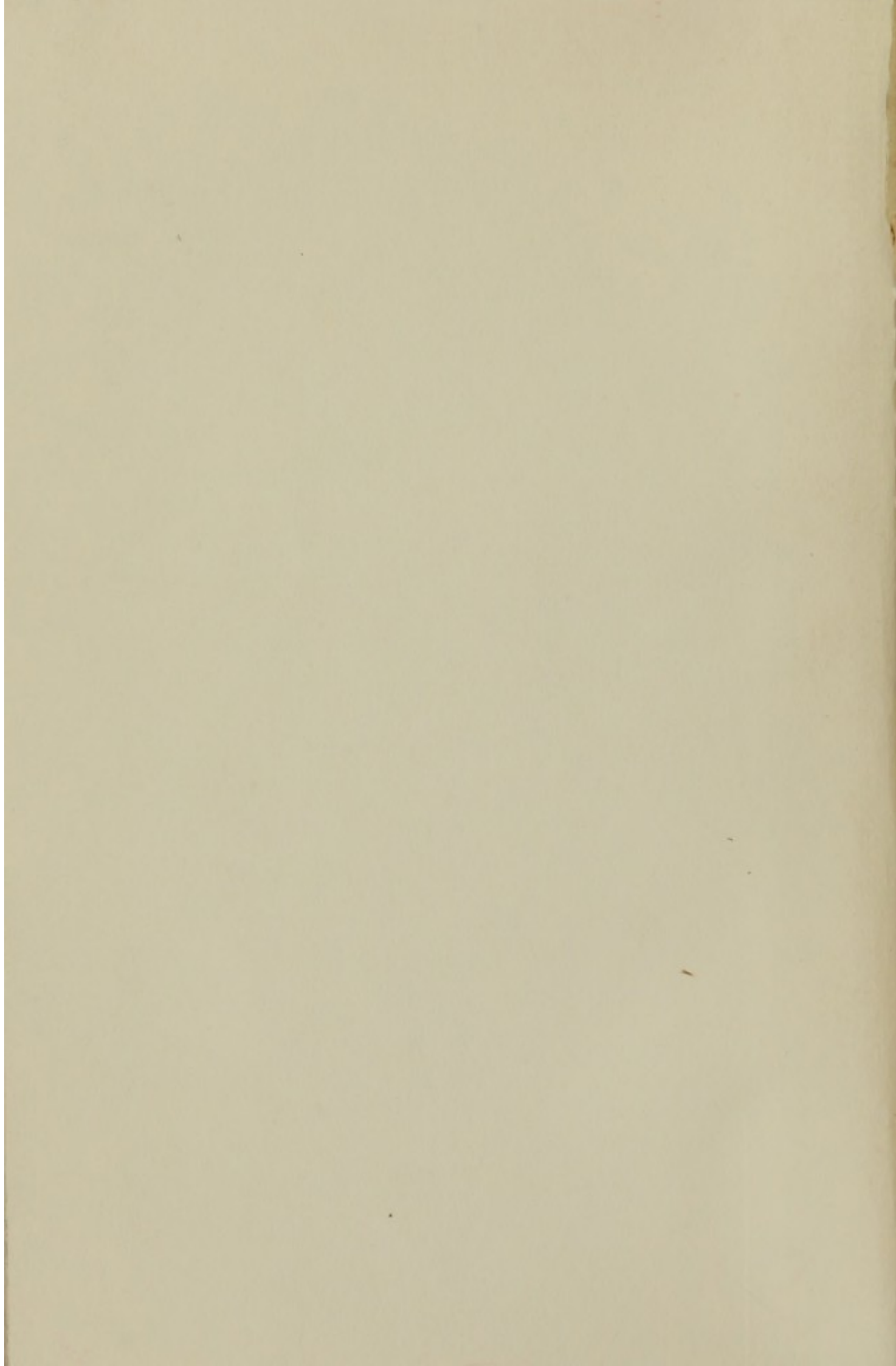


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ORGANIC LAWS;

OR THE

LAWS WHICH GOVERN

THE HUMAN ORGANISM.

BY J. BRADFORD SAX.

Prop. of the U.S.A.



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P R E F A C E .

THE following work was undertaken to supply what I regard as a real want or necessity, and therefore no apology is needed for its publication. Not that any great originality is claimed, or that there are not works enough already upon the same general subject. But there is no book, with which I am acquainted, advocating the doctrines which this does, and which I believe to be the only correct one upon the subject—which is sufficiently brief, and comprehensive, and plain, and popular in its style, to meet the wants and tastes of the class of readers for which this is designed. Graham's Lectures on the Science of Human Life, to which we are largely indebted for the matter of this work, is, perhaps, the most comprehensive, thorough, and complete work on the subject ever published, or which is likely to be published for an hundred years to come. But it is too long, and not plain and popular enough in its style, ever to be read by the great body of the people. Those who desire to see the subject nearly exhausted, should not fail to read it carefully. But the mass have not, and will not read it. To such I would recommend an unpretending substitute, in the present humble volume.

The works of Dr. Alcott, and Mr. Fowler, and others, treat many particulars much more fully and ably than I could hope to do ; but with deference, I would suggest that no one of them is so comprehensive as mine. I have aimed briefly to present the substance, or results, of them all—to embody the whole subject. I wished to furnish a brief and comprehensive guide to health and happiness, by the help of which any one, even though he had but little leisure, might regulate all his voluntary habits in accordance with the laws of life, so as to rescue and preserve the highest

condition of the body and mind. How far I have succeeded the public must judge.

I would not have any one rest satisfied with the persual of this work; but having begun the investigation, (and in this book he will only enter the vestibule of the temple,) I would urge him to proceed until he has appropriated all that is known upon the subject. Those who have means and leisure, cannot possibly employ their time more profitably than in carefully reading any and all of the publications of Fowlers and Wells, including the Phrenological and Water-Cure Journals—the writings of Mr. Graham, Dr Alcott, and others, which I need not specify.

As I do not write to gain literary honors, but solely to benefit my fellow men, I have not labored to make my work original, or greatly to polish my style; but have endeavored to speak the truth as plainly and as forcibly as I could. Any doctrines, views, or arguments, which I deemed important and useful to man, I have freely used, no matter who originated them. Human welfare is more important than any thing else. When I have used another's language, I have meant to give proper credit.

With these few remarks, I submit the following pages, without hesitation to a discerning public. I am alike indifferent to popular praise or censure. If men and women will but read them, and heed the truths which they contain, I am content. All I ask is a short audience with the people. Smite me if you please, but for God's sake, and your own sakes, hear me! Spurn me if I tell you not the truth: if I do, still spurn me if you please, but heed the truth spoken.

West Aurora, N. Y., October, 1851.

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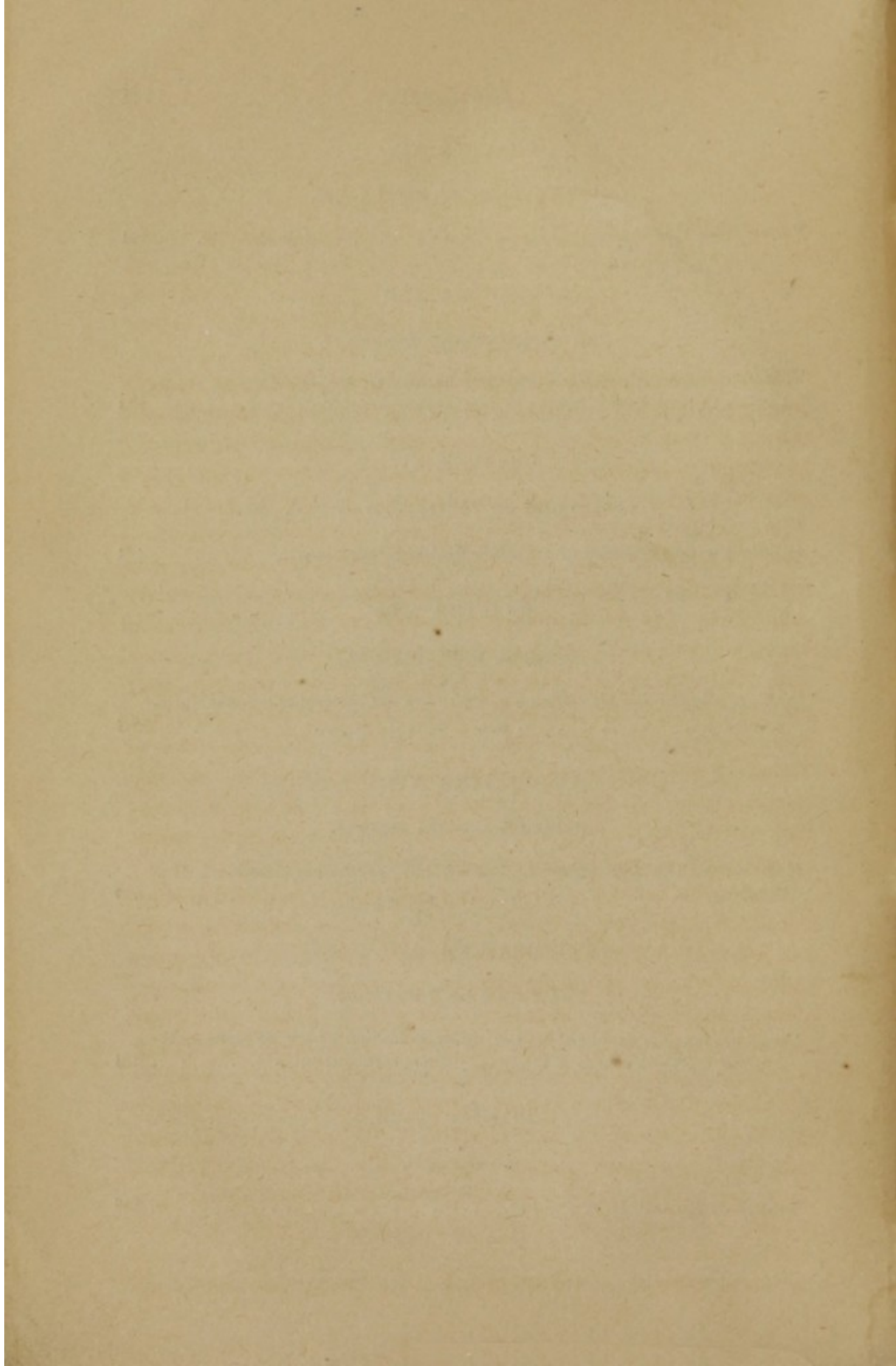
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INTRODUCTION.

ALL things in nature are governed by unbending laws. Nothing happens by chance; neither does God now interfere directly with the moving and action of his universe. This will be admitted by all enlightened *theists*. The earth sweeps round the sun in her orbit, in strict and unvarying obedience to the law of gravitation. The unsupported body falls to the ground in obedience to the same law. Chemical unions and decompositions take place in obedience to the laws of affinity which have been stamped upon particular substances. All the beauties of summer are made visible to us in obedience to the laws of light. The vegetable world grows in obedience to the laws of vegetable vitality, which have been impressed upon the seeds of the different species of vegetables of which it is composed;—which seeds themselves received said impression as the result of laws which governed the parent plants. By this means every seed is made to produce its like. Wheat will produce wheat, and nothing else; and thus of rye, maize, the acorn, the peach-stone, and all other seeds.

So, too, the *manner* of growth and existence is the same in every individual of the same species. Wheat never grows upon the oak, nor the acorn upon the wheat straw. And the circumstances under which any particular species thrives best, are always the same for that species. Wheat in the dry and cultivated field, grass in the meadow, and the oak in the forest. Nor can these circumstances be changed without injury to the vegetable—without deteriorating the result. Wheat cannot be deprived of its proper cultivation, grass of its due amount of moisture, the oak of its proper soil, or tropical plants of the heat of a vertical sun, without injury and perhaps death. All this because of the different laws of vitality impressed upon each particular species, governing all its functions.

It is the same in the animal kingdom. All species, and every

individual in them, have their birth, grow, live and die, in strict obedience to the laws of animal vitality which have been indelibly impressed upon them by the forming hand of the Supreme. The raven grows up with its black plumage, and the eagle with his talons; the fish receives its scales, fins, and gills; the elephant his trunk, and the lion his claws and shaggy mane: the horse his hoofs and glossy coat, the sheep its wool, and the ox his horns. The seed of each species unerringly produces its like. As said Ferdousi:—

“ If the egg of the raven of noxious breed
 You place 'neath the paradise bird, and feed
 The splendid fowl upon its nest,
 With immortal figs, the food of the blest,
 And give it to drink from Silsibel,*
 While life in the egg breathes Gabriel,—
 A raven, a raven the egg shall bear,
 And the fostering bird shall waste its care.”

As in the vegetable world, so in the animal; the circumstances under which any particular species thrives best, are always the same for that species. The camel on the desert, the lion in the tropical forest, the ox and the horse in their native meadows, the sheep on its hills, the fish in the water, and the fowls in the air. All species have their own particular laws governing their organisms, and are placed in and surrounded by a certain set of circumstances which are necessary to their well being. From these they cannot be removed without injury. They cannot violate the laws of their being with impunity. All species must obey their own laws.

Moreover, all individuals in any species are subject to the laws of that particular species. All lions are subject to the same vital laws, and follow the same habits. So of all horses, and oxen and indeed of all animals. All beavers live by the water, and bathe in it. All sheep chew the cud. But it is not necessary to enlarge. What, in fine, is best for one animal, is best for every animal of the same species: that is, they are all governed by the same *organic laws*.

Once more; the nearer the resemblance between two species in

* A fountain in Paradise.

anatomy, form, appearance, every thing,—the nearer the resemblance, or identity, between the two sets of laws which govern them, and the more similarity there is or ought to be in their habits, and all the circumstances by which they are surrounded. The ox and the horse resemble each other more than the sheep and the cat; the vital laws which govern the former are nearer identical than those which govern the latter, and so ought to be their habits and the circumstances which surround them. The same is true of the lion and the tiger, as compared with the swine and the goat. Bear this in mind, as well as the preceding remark, for we shall have occasion to use them by and by, in ascertaining man's normal habits.

The human species forms no exception to these general remarks. As everything else is placed in subjection to natural law, so is man. And he is governed by particular laws to which no other beings are subject: laws which are adapted to his nature, (rather which *form* his nature,) and condition. These laws of course require certain definite habits precisely adapted to them, and circumstances congenial with them. Nothing happens to man by chance, more than to the lower animals; and Providence does not now interfere directly with his affairs. All things that come to him—health or disease, righteousness or sinfulness, joy or sorrow, prosperity or adversity, riches or poverty, happiness or misery—all come as the necessary results of unalterable laws, determinately established upon the constitutional nature and relations of mankind. If he is blessed with health, righteousness, joy, prosperity, riches, and happiness, they always come as the result, or the reward, of obedience to the laws which have been instituted to regulate and govern his life and conduct. But if he is cursed with sickness, sinfulness, sorrow, adversity, poverty, and misery—one or all of them—they invariably come as the punishment or result of the transgression or violation of these laws. Thus, evils are not sent arbitrarily or by an inscrutable Providence to afflict us, neither do they happen by chance; but always as the result of transgression of God's laws, either physical or moral. Any other supposition would be absurd.

To suppose these things come to us by chance, is rank *atheism*: there can be no *chance* under the government of an infinite God. And to suppose they are sent by Providence arbitrarily and capri-

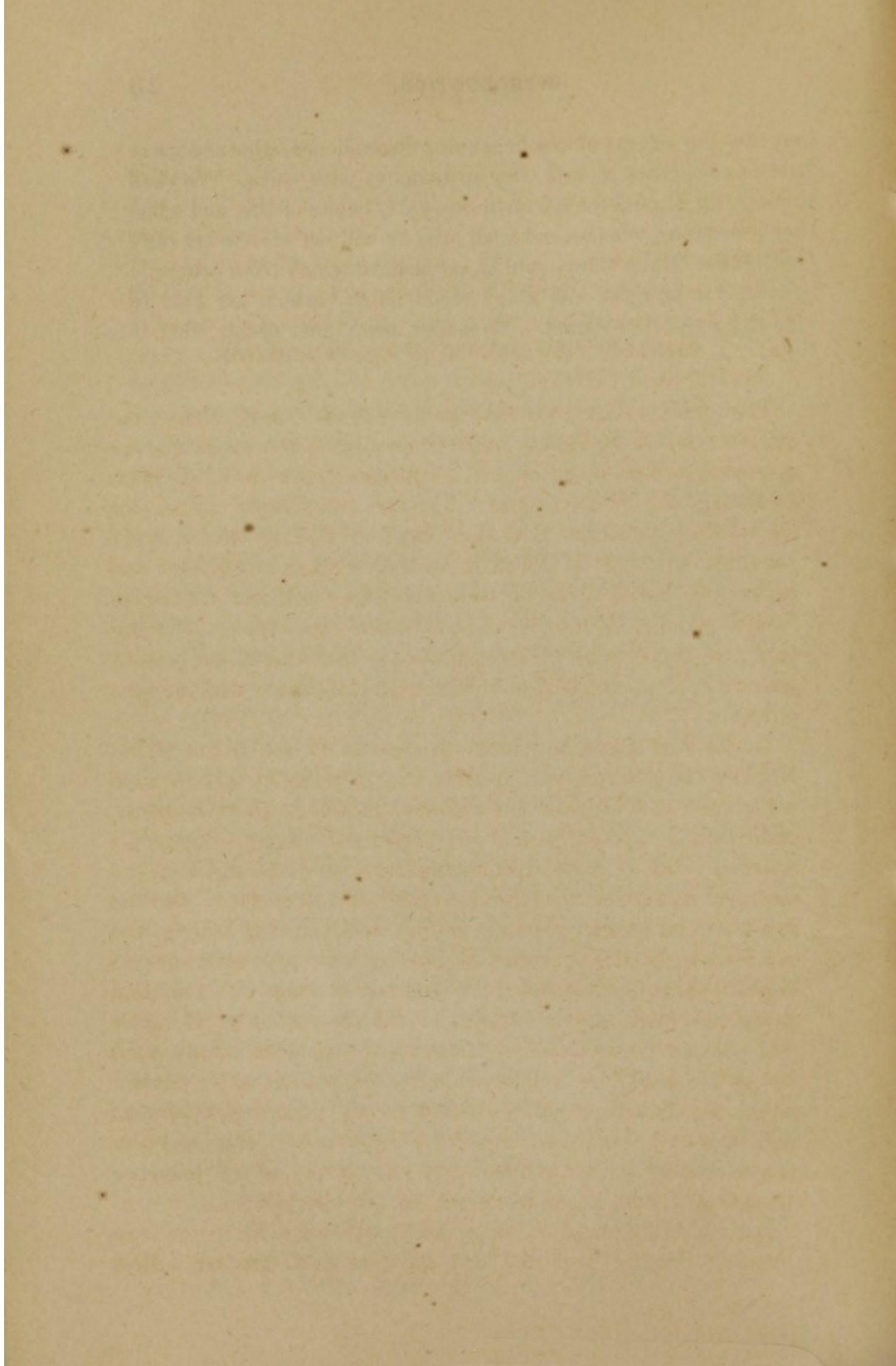
ciously, without reference to our actions, is to ascribe to him a false character, deny the attributes universally ascribed to him in the Bible and by men, contradict all we know of his manner of dealing and action in every other department of his creation, and indeed all that we *know* of his dealing with mankind ; and all this without any necessity, or even the shadow of a reason. This is so very plain and certain, that it need not be further argued. It would contradict all analogy, and every kind of reasoning, to suppose that man was not governed in everything by the most unbending laws ; or that anything comes to him by chance, or (except as a miracle) by the immediate and direct interposition of Providence.

True, in a certain sense God directs all events—that is, by laws which He has established, but in no other way. His infinite energy was necessary to establish them and make them efficient, and it is necessary to uphold them and make them accomplish what He designs. In this way and in no other He regulates all man's affairs, and superintends every event in his life and destiny. In this way He brings upon him all that he enjoys and suffers. As man's whole life and being is governed by natural laws, therefore every action which he performs must be either in obedience to or transgression of some of these laws. No act in his whole life can be *neutral* in this respect. This is true physically as well as morally. If we eat or drink, we do it either in harmony with or in opposition to the physiological laws. So of every motion we make, and every habit or action of our lives. Therefore every act brings a reward, or incurs a penalty—produces enjoyment or pain.

All suffering is the result of transgression, and all enjoyment the result of obedience. This, taken in connection with the preceding remark, and with the immense amount of suffering in the world, will show the immense importance of our subject ; especially if we consider that God's laws are easy to be obeyed. If we know what they are, we can almost always render so near an obedience to them as to escape nearly all the evils of this world, and make ourselves constantly happy. How then is it possible to over-estimate the importance of our subject ?

With these introductory remarks we are prepared to enter upon the task before us. Our subject is the *organic laws*—the laws governing man's organism. We shall endeavor to ascertain what

they are, the effects of obedience and disobedience, what actions or habits are opposed to, and what in harmony with, them. We shall particularly discuss the common every-day habits of life, and when they are wrong, recommend such ones as will not violate but obey God's laws. Many things will be condemned which have generally been held to be right, and many recommended which are held in almost universal contempt. No matter, *truth* must decide what is right.



CHAPTER I.

DISEASE THE RESULT OF TRANSGRESSION.

THE position which we shall assume at the outset, is this: *the diseases to which the human family are subject, and by which they are so greatly tormented, are mainly, if not entirely, the result of transgression of the ORGANIC LAWS.* They are not chance results, nor the arbitrary inflictions of an inscrutable Providence, but the direct penalties annexed by Jehovah to the violation of his wise and benevolent laws. This doctrine may seem new and strange to many—perhaps to most—but it is nevertheless true. Thinking men, who have turned their attention to the subject, are coming generally to acknowledge it. Reason sanctions, and science proves it.

In the first place, how much disease do we see in the world! Not to go beyond our own country, what a nation of invalids have we around us! How much sickness, pain, imbecility, weakness, premature decay, dotage, and early, miserable death! Behold the standing army of physicians, vainly endeavoring to patch up the diseased, debilitated, and rickety bodies of the people! See the cart-loads of quack nostrums, got up and sold and bought and swallowed, for the purpose of abating this scourging curse! Beneath these the shelves of our apothecary shops, groceries, and stores, absolutely groan. Listen to the constant wail of agony that goes up from countless thousands of sick beds. Look upon the pallid faces, the trembling limbs, the emaciated or bloated forms, the deformed bodies,—listen to the groans and dolorous complaints of those you meet, for a single week only, and you cannot but be satisfied, if you are not already, of the immense amount of disease in the world—at least in this country.

Indeed, who pretends to be perfectly well—absolutely free from disease? Hardly one. All are more or less diseased. Meet

people and ask them how they are, and how are their families, and will they tell you that they are *well*? Not at all. The reply will commonly be, "*as well as usual*;" and then they will proceed to edify you with a long account of pains and aches and ails,—enough to render the life of any one miserable, though he was surrounded by all the external blessings which the wealth of India could purchase. This is not *universally* true, partly because many complaints are concealed, and partly because many regard it as in bad taste to talk about such things.—My profession has for years called me to associate much with mankind, and to become acquainted with many people. If everybody had had the same opportunity that I have had to become acquainted with the immense amount of disease with which the people of this country are cursed, there would be no need of these remarks; but all would feel strongly the great magnitude of the evil. I cannot think of but one other evil in the land—sin—which is any way comparable to this in magnitude and baleful influence. With that exception, it is the master evil of the country; and no other ought so much as to be named the same day with it. Nothing else causes so much human wo, blights so many hopes, crushes so many hearts and destroys so much human happiness.—Says Dr. Cutter, in his *Anatomy and Physiology*, "Disease is under the control of fixed laws, and rarely occurs to vegetables or animals in their native condition, while man is so subject to disease, that his average length of life is less than half its natural period. These diseases come not by chance; *they are penalties for breaking the laws of our being*,—laws which we are capable of understanding and obeying. If we possess good constitutions, we are responsible for most of our sickness; and bad constitutions or hereditary diseases are but the results of the same great law,—the iniquities of the parents being visited on the children."

It is a common remark, that health is necessary to happiness;—that sickness destroys the happiness of life;—that nothing can be enjoyed if we are sick. This is all true, even to a greater extent than is supposed. An immense amount of the very worst kind of human suffering is caused by disease, which no one ever dreams of referring to that cause. But everybody admits disease to be the cause of misery enough, where it exists, to give them a lively

conception of the greatness of the evil. Now take into consideration the almost universal prevalence of it, and how can we overestimate the appalling magnitude of this ever present curse? But I am digressing.

Man, and those animals which he has subjected to his influence, and thereby forced out of their natural mode of living, are alone afflicted with disease, of all the inhabitants of this planet. As a general statement, to which of course there will be here and there an exception, all animals that are left to pursue the guiding of their unperturbed instincts, enjoy constant, perfect, and uninterrupted health. Especially is this true of the more perfect kinds, and particularly of the vegetable eating species. With them health is the rule—perfect health—and disease is the rare exception. The wild beasts of the forests, the fowls of the air,—they are not afflicted with consumption, or fever, or liver complaint, or dyspepsia, or nervousness, or any of the ten thousand ailments under which mankind groan and die; nor indeed with any others. Go to the immense troops of wild horses upon the plains of South America. Do you suppose you would find them with the *heaves*, the *glanders*, or any other diseases? You would find every individual, unless in case of some accident, enjoying the most perfect, robust, and uninterrupted health. The same would be true of the wild *oxen* or of the *bison* upon our own western prairies, or indeed of animals of any kind and in any place, where they have been left to follow the habits of life natural to them. Disease is almost unknown to the animal kingdom, except where man has exerted his, in this respect, pernicious influence.—Now why is this? Why is man cursed with a thousand diseases, and animals free from them all? I ask for the *cause*, since nothing happens without a cause. I press the reader to the point. What is the cause of man's diseases, and of the perfect, or almost perfect, healthfulness of animals?—Can any other possible cause be assigned than this, viz: animals are endowed with unerring instincts to direct them to habits of life perfectly congenial with the laws of their being, and to warn them against transgression of the same; and when left to themselves, they follow those instincts, and consequently obey the laws of their organism:—uninterrupted health is the consequence. But man, being also endowed with thinking or reasoning capaci-

ties, is enabled to disregard and violate *his* instincts, and transgress the laws of his being ; all of which he does every day, as none can deny, and as every one would admit. Hence and thereby he incurs all those diseases to which he is subject. Transgression of some of the laws of his being, therefore, is the cause of his diseases ?

I would ask any candid thinker, if this does not seem to be the most reasonable way of accounting for the immense difference between men and animals in this respect ? Does it seem reasonable that God should have given the inferior animals constitutions not subject to disease, but at the same time curse his own children with constitutions necessarily subject to all varieties of the same ? And this without regard to their transgression of his laws ? Any one who can believe such nonsense, is really to be pitied ; but it is nearly useless to undertake to reason with him.—Our Father does not act thus capriciously and partially. He acts according to general laws, or rules.

Again, and more directly, men *do* transgress the physiological as well as the moral laws ; and what more likely than that disease should be the appropriate penalty for the former transgression ? We cannot go into this argument so extensively as we should be enabled to after ascertaining what the physiological laws are ; but we will argue upon the general admission that all *do* transgress the organic laws. Few will be found hardy enough to deny this. We transgress by intemperance and gluttony, by excessive labor, by exposure, and in an hundred ways palpable to the sense of every person of common understanding. All God's laws have penalties annexed to them, which are incurred by their violation,—because he is a being of immutable and perfect justice. Now, what more likely to be the penalty of violated physical laws, than disease ? Indeed this must be the penalty from the nature of the case. Disease is only the abnormal action of some of the organs of the body ; and transgression of the physiological laws is only placing ourselves in such a situation as to force some of the organs to act abnormally, or to suspend their normal action, which amounts to the same thing. By continuing transgression, we cause the morbid or abnormal action which it produces to become habitual to the abused organ ; this is disease, which will continue a certain length of time, even after the cause has ceased.

There has been an immense amount of nonsense written, talked, and believed, upon the nature of disease. It all amounts to nothing, while the subject, divested of all cant and folly, is perfectly plain and simple. The common notions upon the subject are fully as absurd as were those of the ancient Jews, who believed that sickness was caused by demons possessing the unfortunate patient. Disease is commonly regarded as a distinct something—a personal enemy—which has taken possession of the body, and will continue to afflict it, until it is violently expelled: hence the violent medicines which are taken, as it is said, to *kill* the disease. Now, this is in reality the old Jewish superstition somewhat modified.

Disease is not a foreign enemy which has taken possession of our bodies, *but it consists in the abnormal action of some one or more of our own physical organs.* This is all there is of it.—It is a proverb, that we are the *creatures of habit.* We are, in more senses than one. What we have been accustomed to do, we can with difficulty avoid doing. When we have become accustomed to do *wrong*, it is hard to break the habit; and the harder, the longer it has been continued. This is equally true with respect to the involuntary physiological action of all the organs and instincts of the body. When any organ or instinct has been forced for some time to act in an abnormal manner, it forms a *habit*, if I may so speak, which cannot be immediately overcome. It continues to act thus, even after the producing cause is removed.—As an illustration, take the taste, or desire, or instinct for food and drink. It may be perverted to desire and even demand, with the most importunate longing, the most pernicious and disgusting substances in nature; among the rest alcohol, and opium, and tobacco. Now when a man desires alcohol to drink, it is manifestly an abnormal action of that instinct which prompts him to drink;—the normal action of which would prompt him to drink *only* pure water. This is *disease*—a disease of said instinct—and we say such an one has a diseased appetite. This disease will continue some time after the transgression which produced it ceases to act. In the same way a man may acquire a diseased appetite for tobacco, and highly relish its nauseous taste. A diseased condition or action of the faculty of taste alone could give such a relish.

If the stomach has been accustomed to receiving and desiring

food at certain hours, or at short intervals, we find it hard to break it of this habit, even though it may be perfectly abnormal. And the more abnormal or unnatural such action is—the more widely it differs from the normal or natural action—the harder it seems to be to change it for the natural action. The worse the kind of food or drink to which we are accustomed, the more complete is our slavery to it. No person could possibly become so much enslaved to catnip tea, as the drunkard is to alcohol.—Now all this is equally true of the abnormal action of any or all of the organs or instincts of the body; when it is once established by physiological transgression, and continued for any length of time, it becomes habitual, and continues even after the cause is removed. This is disease. And the greater the departure from nature in the action of any organ, the more difficult is it to restore it to its natural action: that is, the more violent any disease, other things being equal, the harder it is to cure. Suppose that by some transgression of Nature's laws we have induced abnormal action in a particular organ,—say in the stomach, or bowels, or liver, or kidneys, or skin,—and continued it by the same means until it has become habitual to that organ;—then we have a case of chronic disease produced by physiological transgression. And this must be the necessary result of all transgressions of the physiological laws, if long enough continued, for Nature does nothing by piecemeal. She always acts according to general, unvarying laws.

Considering the necessary result of continued transgression of the organic laws, we here see a cause adequate to the production of all the disease in the world; especially if we take into the account the acknowledged magnitude of said cause, in its almost universal prevalence. There is organic transgression enough in the world to produce all the disease, and it is a cause fully adequate to such a result. • Why then need we look for any other? And what other cause can possibly be assigned? It is absurd to suppose that disease exists without any cause; and if it has a cause, what is it, if it is not physiological transgression? And by physiological transgression I mean, following such habits, or being surrounded by such circumstances, as violate Nature's laws, and as a necessary consequence induce abnormal action in our systems.

In further illustration of this subject, it may be remarked that

animals,—although not subject to disease so long as they follow their natural instincts, and thus obey the laws of their being,—become diseased as soon as they are induced or forced to transgress, and to continue the transgression. This may be seen in all the animals domesticated for man's use, or subject to his influence. They are forced out of their natural manner of living, and disease is the consequence. The wild horses of South America live in accordance with the laws of their being, and are free from disease. Those subjected to man's control are forced to violate those laws, and are consequently diseased with all manner of diseases. So with the cattle and sheep, and all our domestic animals. The apes and monkeys, in their native forests, living upon those fruits and seeds which are designed for their food, know nothing of disease; but those which are caught and kept by man, and made to transgress by eating improper food, and in other ways, are frequently sick and die prematurely. So of all wild animals kept in menageries. They soon become diseased and die.

What more reasonable than to suppose that it should be the same with man? that he should be well when he obeyed the laws of his being, but diseased if he transgressed? And when this is found to be actually the case—as we shall presently show that it is—what more irresistible than the inference that disease is the result of transgression? But we will postpone the consideration of the argument from experience or observation of the effects of transgression and obedience, until we have by an appeal to the organic laws determined what is transgression and what obedience. In the meantime we will take the proposition which we set out with, that disease is the result of transgression of the organic laws, as *proved*, since I think no sensible person will think of denying it. After all, perhaps, it was not necessary to argue it so lengthily as we have done, to obtain a general assent to it; for it seems to me that any one must acknowledge it true almost intuitively. It commends itself to the reason of all. It may almost be regarded as an axiom.

Think of this, ye invalids, and take courage! Your afflictions are not unavoidable, as you have supposed, but may be avoided by avoiding the cause. True, inveterate diseases which you have already incurred may be somewhat stubborn, and continue to afflict you for a while;—still by avoiding transgression and practicing

obedience, you will avoid incurring any more, and gradually remove those which you have. Nature in your own constitutions is endowed with a strong conservative, healing, restoring and renovating power, by which, if the evil has not gone so far as to be absolutely incurable, it will soon remove diseased action from any organ, and repair the injury which it has produced;—*unless the result is prevented by continual transgression.* But more of this in its proper place.

Hereditary disease will probably be mentioned as an objection to the doctrine of this chapter, that all diseases are caused by physical transgression; but as these must have originated somewhere, with some progenitor, the case has precisely the same relation to our subject as though it originated with the present possessor. And I hold it as an immutable truth, that no disease could continue, or be transmitted from one generation to another, unless physical transgression was also continued. If, because of the transgressions of our ancestors, we are ushered into being with deteriorated constitutions, as we all are, some more and some less, we may never perhaps be able to bring them up to that symmetry and vigor which they might otherwise have possessed, but, except in rare and peculiar cases, *we need not be diseased.* Perfect obedience will subdue or prevent diseased action, and health will be the certain and happy result.—Holding these views, we therefore confidently affirm, that if the organic laws are strictly obeyed in every particular, perfect health will bless the individual so doing, from infancy to the latest old age. Disease in none of its ten thousand forms will ever show its hideous face! Perfect health is the reward for a scrupulous observance of these laws, as disease is the penalty for their transgression. There is great confusion and error upon this point in the popular mind. Although the doctrine of this chapter would probably be admitted by almost any intelligent person, when pressed to the point, still the impression seems very generally to prevail, that, as a common thing, sickness is in no way, or at least in no certain and definite way, connected with our physiological habits and transgressions. Hence the common observation,—“sickness goes where it is sent; and we must submit to it when it comes;” and much other similar nonsense.

Although we may admire the piety and resignation which

prompt such remarks, yet we can by no means subscribe to the philosophy upon which they are evidently founded. It is evidently assumed by those who thus talk, that health and sickness do not depend upon the character of our voluntary acts; which assumption is not true. As a race, men have their bodily health as much entrusted to their own keeping, and as completely within their own control, as they have their moral characters. It depends entirely upon the completeness with which they obey the organic laws.-- Man, I repeat, was not made to be diseased, unless he transgressed, any more than the birds of the air, or the beasts of the field. Perhaps he may be and is sometimes placed in such circumstances that he cannot avoid transgressing to some extent, just as a horse might be forced to eat improper food, or starve, if there were no other within his reach; but the disease incurred by such forced transgressions bears only a small proportion indeed to the whole amount which afflicts the human species. It is *almost* all caused by violations of law, which might be avoided. It follows that sickness is nearly all caused by the character of our voluntary acts, considered with reference to the physiological laws, and hence might nearly all be avoided.

People admit this doctrine to some extent; allow that disease is caused by transgression; but cannot believe that it *all* is. Hence in any particular case of sickness, they almost always refer it to *chance*, rather than their own sins. They must give up this *scape goat*, before there will be any hopes of their reformation. We beg them to remember, that God and Nature always act according to general rules. If disease is ever the result of transgression, it always is; and if transgression ever produces disease, it always does, if long enough continued. There are no exceptions or reservations to be made. The whole or nothing.

When you are sick, don't attribute it to chance, nor lay it to the charge of God. If you *will not* obey his laws, don't complain when you suffer the penalty. If you sow the *wind*, don't murmur when you are forced to reap the *whirlwind*. Heaven is just. Sin will be punished, whether it consists of moral or physical transgression.

If you are ignorant upon this subject, and do not know the way of obedience, it is quite time you were informed. Do not let frivolities occupy your time, when you are being destroyed for lack of knowledge. Study and judge for yourselves.

CHAPTER II.

AMOUNT OF PHYSIOLOGICAL TRANSGRESSION.

THE immense amount of transgression next claims our attention. In this country especially is it enormous. This might be inferred from the immense amount of disease, taken in connection with the proposition established in the last chapter, that disease is the result of transgression. But we prefer to look at the subject a little more directly, and get at another view of the evil. But first, let us make some preliminary remarks, which will help illustrate the subject.

The first point to which we would call the reader's attention, is the following:—We must either violate or obey some one or other of the organic laws, in every action which we perform—there is no chance for neutrality. These laws might truly say of every action, one that is not for us, is against us. None can be neutral. Every habit must be established in strict accordance with the unvarying principles by which the vital economy is governed, and hence be a constant obedience to the laws of life and health, as far as the particular habit is concerned; or else it will be a continual transgression, constantly accumulating disease, or manufacturing the seed of disease, and storing it away in the system, where it lies ready to germinate at the first favorable opportunity—a magazine ready to explode upon the application of the first spark of sufficient temperature to ignite it. The explosion, when it comes, and come it must, may blow up the constitution along with the present health, and reduce the unfortunate sufferer to a wretched invalid for life, or, perhaps, speedily result in death. If he has constitutional stamina enough to escape complete destruction, the chances still are that he will never be able to collect the scattered fragments of health, into anything like a comfortable residence for the soul during the few days or years which he is permitted to *stay* upon the earth—a burden to himself, and a cumberer of the ground.

How many cases, precisely like this, do we see about us every day? Here is a man who has lived for a number of years in comparative health and enjoyment: that is, he has not been] actually confined to his bed, and obliged to call in the doctor, oftener than once in two or three years, and then he was not confined and forced to eat medicine more than two or three weeks at a time—perhaps not quite so long. True, he was frequently unwell, and forced to “dose,” or “sweat,” or something of the kind. He frequently had most delightful turns of the headache! He “happened” to take a severe cold occasionally. Sometimes he felt nausea, and loss of appetite, or intolerable thirst. Perhaps a stray pain or ache now and then assaulted some part of his body. But still he was a well man, in his own estimation. Several of his daily habits constantly and violently transgressed some of the physiological laws; but he supposed that because he was not actually sick, or because when any serious symptoms did occur, it was immediately removed by the prompt application of the infallible “dose,” there were no evils resulted or could result from his habits of life. As to his occasional—perhaps periodical—fits of sickness, with all the delightful accompaniments of doctor’s bills, watchers, nurses, neglect of business, etc., he took them all as a matter of course. They were the “ills which flesh is heir to.” He saw others sick, and supposed it necessary that he should be. He never thought of inquiring whether he might not just as well remain in perfect health, as to be sick so much. He supposed sickness to be unavoidable.

But by and by a “change came over the spirit of his dreams.” He was awaked as by a clap of thunder. He was taken suddenly and violently sick; the doctor was called in, and his life almost despaired of for a long time. At length the crisis was passed, and he began slowly to recover. He could set up, walk, go out of doors. He saluted his neighbors as usual in the streets. But alas! he was only the shadow of his former self. He said he was as well as usual; but it was only the *ghost* of health that he possessed. The living reality he had murdered; and only the hideous ghost remained, to haunt his footsteps during the few remaining days of his life. He was a miserable invalid—an incurable one—and constantly deplored that “fatal fit of sickness,” as he called the breaking up of his constitution, and which he supposed was the sole

cause of all his wretchedness. He believed that he "happened" to have the attack, which, had he escaped, he would now have been as well as ever. At last he died, and nobody was the wiser.

Now, what rational man can believe that this was all a chance affair, depending upon one fit of sickness, and that it was in no way connected with his previous habits? Truth asserts that it was the natural and inevitable result of a long series of transgressions of the laws of life and health. The physiological organs, faithful to their trust, bore up for a long time under the fearful and unnatural burdens put upon them. At length, their outraged natures could bear no more. Their energies were gone for ever! Disease came upon them, and death followed. Is there any inscrutable providence in all this? Is it not rather a regular succession of cause and effect? Was not the effect as sure to follow the cause, as night the setting sun? Most undoubtedly. The "fatal fit of sickness" had no more to do with the subsequent ill-health, than the first hour of darkness with the midnight gloom. It was simply the signal or report of that explosion which had been preparing, perhaps, through life. *Physical transgression was the cause; disease and premature death the effect.*

I repeat; every habit must necessarily be established, and every action performed, in strict accordance with the laws of the vital economy, or else said habits will violate said laws, and pain, and finally disease, and at last death, will be the consequence of our temerity. There can be no neutrality in the matter. It follows that it is necessary to perfect health, to regulate every habit and action upon physiological principles; none must be neglected. How essential, then, that none of our habits be established or practiced in ignorance of the organic laws; since, if they are, the chances are many to one that they will be wrong. "*Know thyself*," is a motto of great importance; let us adopt it. Since every habit or action must be either an obedience to, or transgression of, some one or more of the laws which govern the human system; and since it is evident that any habit or custom, if established in utter ignorance of these laws, is quite as likely, to say the least, to violate them as it is to accord with them; therefore the amount of transgression must necessarily be great where this ignorance prevails. If all the voluntary habits are established in total ignorance of those laws, it

is obvious that most, if not all, of them must be likely to be more or less in direct opposition to said laws, and of course completely opposed to the *physical*, and, if so, to the intellectual and *moral* welfare of the individual practicing them. But all our daily voluntary practices, which have now become habitual to us, and may hence be called *habits*—such as the prevalent modes of eating, drinking, sleeping, dressing, laboring, etc., I say all these have been adopted and regulated and followed, in almost utter ignorance of the organic laws, with which they ought to have been in harmony; and hence we ought to expect that most of them are direct and palpable transgressions. Enlightened observation would prove that this expectation would not be groundless: it would be fulfilled with regard to quite too many of them.

Be sure, the natural instincts of our undepraved organs, in their normal state, would be an unerring guide to truth in our habits; but man has so far perverted his faculties, depraved his organs, and debauched his senses, by not listening to their instincts, or going directly counter to them, that none of them now exist in their normal or natural state; and consequently, their instincts are blind guides, not to be listened to at all, directing us wrong rather than right.

For instance, if a man had always obeyed the laws of his nature, the special sense of taste would unerringly indicate the kind, quantity, and condition of food and drink best adapted to his nature. But he has so wretchedly debauched that useful sense, that it now gives him but very little, if any, correct information on the subject. He has trained it to relish and *demand* almost everything—even that foul and loathsome weed, *tobacco*—with more greediness than his natural food. So of all the special senses. Therefore, when the present customs of society were established, those who established them having, by transgression, lost the purity and integrity of their natural instincts, and being totally ignorant of Physiology, had nothing to guide them in the way of truth. Hence, it followed that the established customs most grossly violated the organic laws; and as these customs have been most scrupulously and almost universally followed, and most perseveringly persisted in, it is not strange that so much disease and wretchedness has been the common lot of deluded mortals. The wonder is, why the besom of de-

struction has not long ago swept the human race from the face of the earth ! Why one is left to tell the tale of physical and moral sin !

But whatever may have been the cause of our present habits being so completely opposed to nature—whether ignorance or perversity—the fact of their being so cannot be denied. Indeed, it is not, for every one admits that much evil is caused by the daily habits of civilized and especially of civic life. At least every one will admit this, whose opinion is worth anything on the subject. And these evils are sufficiently great, one would think, to induce us to pause and reflect, and turn from the error of our ways. The evil resulting is as extensive as the transgression. As before remarked, we see everywhere men and women with enfeebled, diseased, and deformed bodies. Indeed, so universal is the prevalence of disease in some of its ten thousand forms, that a person in perfect health can scarcely be found, if at all. If you do not believe this, try the experiment among your friends and neighbors. Ask all you meet after their health. If they say they are well, scrutinize the matter closely, and you will almost invariably find that they have, even the most robust of them all, some complaints lingering about them, which prevent them from claiming perfect health. They do not pretend to claim it. They are subjected to a pain here, and an ache there, and general bad feelings occasionally, etc., etc. Some are not able to pursue their employments ; and some do it in great pain ; and some are well enough if they were not subject to an occasional poor spell ; and some take cold easy ; and some have the headache or toothache frequently ; some are afflicted in this way, and some in that ; but all have something to complain of in the way of “ mortal ills,” and, withal, utter most dolorous complaints against the hardness of their fate ; just as though they were not themselves the authors of their own misery, and did not hold the remedy in their own hands, ready to be used.

It would be amusing, if it were not painfully melancholy, to witness the complaints of the people concerning the deterioration of the human constitution, and the alarming universality of debilitated and diseased bodies ;—to hear them wonder why it should be so ;—especially why it should be so much worse in this respect than it was half a century ago. If they do not know, it behooves them

soon to learn, that this deplorable state of things is the fearful penalty for a reckless violation of the organic laws. That the great amount of disease witnessed, indicates a corresponding amount of physiological transgression. And that the magnitude, fearfulness, and extent of the evil, render it a subject of the highest possible importance.

Concerning the amount of physiological transgression, probably most readers will agree with the doctrines thus far developed. Nearly all are ready enough to admit that God has established certain laws in the human constitution, which our habits and actions may either violate or obey; and also that obeying them is favorable to health and happiness, while violating them will inevitably induce disease and suffering. Nay, they will freely admit that there is much, very much transgression, and an immense amount of disease induced by it. This nearly all are ready to admit, in general terms, so long as it does not condemn any of their favorite indulgences; but when any of their long cherished habits are brought under the ban of condemnation, and shown to be gross and palpable transgressions, the matter is entirely changed. They are then extremely skeptical about believing any amount of evidence, and will "plead like angels, trumpet-tongued," in favor of those habits which they do not wish to believe erroneous. But truth is truth, however unwelcome it may be; and "facts are stubborn things," whether they justify or condemn our practices. The manner in which many treat this subject, puts me in mind of a certain class of religious professors;—they declaim much about *sin*,—deplore its malignant character, and the great extent of its prevalence. In general terms they will freely admit themselves to be great sinners, and even take delight in doing so, as a mark of their humility. But when it comes to particulars, and you charge them with particular sins, no matter what ones, they will indignantly deny the charge, and perhaps abuse you for daring to make it. If you *prove* your charge, the vehemence and anger of their denial will only be increased. Like the man who came home and told his wife, with great vehemence and anger, that Mr. So-and-so, his neighbor, had that day at town meeting called him a liar. His wife tried to soften his indignation, and restrain his fury, by saying to him, "Why husband, do not be angry with neighbor So-and-so; what do you

care if he has called you a liar?—you know he cannot prove it.” “Prove it,—that is the very thing, said the injured man, *he did prove it before all the people.*” This was really unbearable!

This is precisely the way many treat the subject of *physical sin*. They will freely admit in general terms, perhaps insist, that there is much physical transgression, and they themselves are guilty of it; but when you come to show that their favorite habits are gross and wicked violations of law, they will deny it. If you prove it, they will grow indignant, and abuse you roundly for your presumption. But as the subject is of *vital importance* to every one of us, and no man can neglect it with impunity, we shall discuss it fearlessly, however obnoxious some of the conclusions at which we shall arrive may be to those whose habits they will condemn. Says the adage, “A man convinced against his will, is of the same opinion still.” Although this is not of course literally true, yet it is extremely hard to convince some men of the truth of anything which would make against their passions, or interfere with any of their favorite indulgences, however plain it may be. In subsequent chapters we shall endeavor to establish the fact, that many of the most important daily habits of the people—many of their most cherished customs and practices—are palpable violations of organic laws. If this can be fairly done, it is certainly of the last importance that they should be instantly abandoned. If I can fairly prove any practice to be a transgression of Nature’s laws, I call upon my readers, in the name of truth, and of every motive which can influence human conduct, to abandon it at once, and hereafter to shun it as you would the plague! Let not your appetites and passions seduce you to do that which is certainly accumulating disease upon you, rendering your life wretched, and hurrying you to an untimely old age and an early grave!

In the following discussions I shall not stop to prove well established principles of physiology, but take them for granted, as they are understood and admitted by all who know anything of the subject, and then apply them to the solution of the questions immediately before us. If we assume correct premises, and draw legitimate inferences from them, our conclusions must necessarily be correct. Whether we shall do so, is for the reader to judge. We beg you to lay aside prejudice and preconceived opinion, and let sober reason decide. As truth shall dictate, so act.

CHAPTER III.

MAN'S DIETETIC CHARACTER.

WE will now proceed to ascertain man's dietetic character, and the natural laws which regulate it; and see what habits they will condemn, and what sanction. And in the first place, man's dietetic character is *determinate*. He is constructed with certain constitutional relations to certain alimentary substances which are designed for his food. These substances constitute his natural or proper aliment, while others, to which he is not thus constitutionally related, would constitute unnatural or improper food. The first would give him health and vigor; the last cause debility and disease. These premises are certain, and will be admitted by all.

The first question is, whether man was naturally and constitutionally designed to subsist exclusively upon a pure vegetable and water diet, or upon a mixed diet of animal and vegetable food; for no one pretends that he was designed to or *can* live wholly upon animal food, and remain in perfect health and vigor. Now, either he was designed and constitutionally adapted to the use of flesh-meat for food, or else he was not. If he *was*, there can no sufficient objection be brought against its use; all the reasoning of the vegetarians must be fallacious. If he was *not*, then every one who uses it is constantly doing violence to his own nature and constitution, and must without fail receive and endure the dreadful penalty for transgression against God's laws, in the shape of pain, disease, premature dotage, and untimely death. Undoubtedly this important question can be as accurately and as certainly determined as any other in science. Neither will it do to say that the propriety of its use depends upon the particular constitution of the individual, as contradistinguished from that of others; for the human constitution, as we have before shown, is essentially one and the same in every individual of the species. It cannot be true, and is not, that a

limited fixed definite

particular kind of food is best, speaking with reference to its permanent effects upon the system, for one individual, while another and totally different and opposite kind is best for another person.

All animals are constituted with certain precise and definite relations to the nature of the particular substances which are their natural aliment. The lion is constitutionally adapted to the use of flesh, and he can never habitually use other food without injury; that is, flesh must for ever be the best food for him. So the ox was constitutionally designed to subsist on herbs. It would be ridiculous to pretend that one ox might live best upon herbs, and another upon fish. The swine is adapted to the use of both vegetables and flesh; but who will say that one hog ought to live upon vegetables, and another upon flesh? What is proper food for one lion, is proper food for all lions; and what is injurious to one, is injurious to all. What is best for one ox, is best for all oxen; and what is detrimental to one, is to all. So of swine, and all other animals. And precisely so with man;—old women, and ignoramuses, and foolish doctors, to the contrary notwithstanding. What is really and permanently best for one, is best for all; and what is injurious for one, is for all: just as it is with the animals before named. If a pure vegetable diet is best, really and permanently best, for a single individual, it is for ever best for the whole human species; and if a mixed diet is best for any, it is for all.

This is a point of great importance; for it has always been one of the devil's principal arguments in tempting men to sin in this respect, to persuade them that human constitutions differ. It matters not how pernicious a dietetic custom may be, the transgressor will immediately persuade himself that, by virtue of certain imaginary constitutional peculiarities with which he supposes himself endowed, it is harmless or perhaps necessary in his case. There is no reasoning with such a man. However clearly you may prove a habit to be opposed to the laws of health, he will immediately meet you with the assertion that constitutions differ; "What is one's meat is another's poison,"—than which no proverb can be more false. He will admit your proof, so far as relates to others, but he is an exception. If you prove tea, coffee, or tobacco, to be destructive poisons,—he will agree that they are so to some, perhaps to most; but his constitution requires them. You must prove they are pernicious to

him. There is manifestly no reasoning with such a man; you might as well talk to the west wind. He is fortified against all arguments.

I admit that we may, by certain habits, bring our systems into such a state—abnormal state, or condition of disease—that even the very best articles of food will occasion temporary inconvenience, and *appear* to disagree with the constitution; while some very bad substances will seem for the time being, and while the diseased condition continues, to be the most salutary. But this *experience*, as people call it, is utterly fallacious and deceptive.—The drunkard may bring his system into such a diseased condition, that a “glass of grog” may appear to agree with him better than pure water; but this would not prove, or be supposed to prove, that alcohol was better adapted to the man’s constitution than water. Just so with regard to food. A very bad kind appears for the time being to agree with a certain person better than a good kind, because of a diseased condition of his system; and hence he assumes it to be better adapted to his peculiar constitution; which is precisely contrary to fact.—The ox may be trained (it has been done,) to a use of animal food, until he is brought into such a physiological condition that he will loathe his natural food, and an *immediate* recurrence to it would make him sick. Would this prove that particular ox to be constitutionally adapted to animal food more than other oxen? Why then does a similar case prove that some *men* are constitutionally adapted to one kind of food, and some to another?—The use of opium produces perhaps the most diseased and the worst physiological condition of which the human system is susceptible; therefore its use is entirely opposed to the organic laws, and a great transgression. But still the use of the drug gives such immediate and complete relief from all the painful sensations produced by the diseased condition, and produces such agreeable sensations in their stead, and seems so to give life to the debilitated and diseased body, that the deluded victim cannot persuade himself that opium is injurious to him, and its use totally opposed to the laws of his constitution; that it is in fact the very cause of all those distressing evils, which it appears so effectually for the time being to cure. He will persist in believing, even in opposition to his better judgment, that so far from being injurious, *opium eating* is harmless

to *him*,—adapted to his particular or peculiar constitution, and indeed necessary to his welfare. He invariably feels better after eating it, and if he abstains from it he is in the most horrible agony. Now is not this case much stronger to prove to the opium eater that opium is necessary to his particular constitution, than any case ever was to prove to the flesh-eater that flesh is necessary to his? And yet it does not prove it, nor go any way towards proving it. Let this same opium eater gradually and cautiously abandon the accursed habit which is dragging him down to death, and with the habit will also vanish the necessity for it. As soon as the outraged organs have a little time to recover their exhausted energies, and normal, healthy action, there will be no occasion for the pain-destroying or stimulating effects of the drug. How does the flesh-eater know that it would not be so in his case? How does he know that the diseased condition caused by flesh-eating, is not the only necessity there is for its continued use? and that by gradually and cautiously abandoning the practice, the necessity would not cease, and the result be a great improvement in the physiological condition of the system, and a renovation of the health, and a restoration of the wasted energies, as in the case of the opium eater? Let not men pronounce so confidently that flesh-meat is adapted to their particular constitutions, or necessary to their well-being, until they faithfully make the experiment of abstinence from its use, nor until their experiment has been guided by a correct and thorough knowledge of physiology and the laws of our being. It is ridiculous to hear a person who has never been without flesh a single month in his life, perhaps not a day, gravely pronounce that he cannot do without its use; that it is necessary to his constitution. He knows nothing at all about it, more than a fool, and yet he states what he *knows* about it, with all the dignity, gravity and assurance, and assumed consequence, of the judge upon the bench! Is this not absurd?

The fact is, whatever may be said to the contrary, that this differing of constitutions, so as to demand or even to permit different and opposite kinds of food, for different individuals of the same human species, is a great humbug! There is not the least foundation in nature for the opinion. It serves only to excuse the most destructive practices. It only deceives men to their ruin. The

human constitution, like the constitution of every other species of animals, is essentially one and the same in every individual of the human race ; and the apparent modifications are only conditions of disease, to be observed by the physician and not by the physiologist. Modifications of temperament, within the bounds of health, I contend, are not essential differences of constitution. Neither do these modifications of temperament, nor conditions of disease, alter or affect man's constitutional adaptation to particular alimentary substances. As a general fact, therefore, what is the best food for one, is the best for all ; and what is injurious to one, is to all. This is to be determined not by any one's caprice or whim, but by immutable laws established in the human organism, and which it is possible to ascertain and obey.

Having determined that the human constitution is essentially one and the same in every individual of the species, so far at least as their dietetic character is concerned, we may proceed to ascertain what that character is, with some hopes of arriving at definite and certain conclusions. What is man's dietetic character ? To what alimentary substances is he constitutionally adapted ? What was designed to constitute his natural and proper food ? In answering these questions, we will appeal in the first place to *comparative anatomy*. If we compare man's alimentary organs with the alimentary organs of *carnivorous* animals, we shall find not only no resemblance, but the widest possible difference. The form and character of the teeth are different, the salivary glands are different and dissimilar, the stomach, intestinal canal,—in fine all the alimentary organs, are totally and essentially different and dissimilar in their anatomical character ; therefore, according to the evidence of comparative anatomy, man is not in any measure a carnivorous animal. The same comparison might be made between man and the *herbivorous* animals ; and the result would be to show that man is not naturally and constitutionally *herbivorous*, like the ox and the sheep. But so far as the evidence of comparative anatomy goes, it places man nearer the herbivorous than it does the carnivorous animals, in dietetic character : that is, there is more resemblance between our alimentary organs, in anatomical character, and those of the former, than there is between ours and those of the latter class of animals. Again ; if we make this comparison between

man and the naturally *omnivorous* animals, such as the swine and the bear, which in a pure state of nature, when left to their natural instincts, will eat both vegetable and animal food,—although there will be more resemblance between their respective alimentary organs, still there will be so wide and essential a dissimilarity when the comparison is fairly made, and the relative circumstances all taken into the account, that “the whole force of evidence will go to prove that man is not naturally, in any measure, a flesh-eating animal.” The hog, strictly speaking, is *omnivorous*, if there is an animal in nature omnivorous, and is organized accordingly: but yet, “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.” This makes the case still stronger against man’s omnivorous character. According to comparative anatomy, man is not omnivorous.

But again; if we compare man’s alimentary organs with those of the apes and monkeys, and especially of the orang-outang, all of which are strictly *frugivorous*, or fruit-eating animals, subsisting exclusively in a pure state of nature on nuts, fruits, and other succulent and farinaceous vegetable substances,—we shall find such a perfect resemblance in all respects and in almost every particular, that the organs of one species may easily be mistaken for those of the other; and one not acquainted with comparative anatomy, could hardly distinguish them apart. Besides, there is a strict resemblance throughout between the whole anatomy of man and of the orang, which is nearly perfect. “But in all that the organs of the orang differ from those of man, they bring the orang between man and flesh-eating animals; and thus, as it were, push man still further from a carnivorous or omnivorous character.” Now it is well known that not only the orang-outang, but all the other species of monkeys, when left free to choose their own food and follow their own undepraved instincts, subsist wholly upon *fruits and seeds*, and other vegetable productions very nearly resembling them in nature. Hence the conclusion, which is as certain as any evidence from comparative anatomy can make anything, that man is in no respect a flesh-eater by nature, but that he is designed and constitutionally adapted, to subsist exclusively upon *fruits and seeds*,

and such other vegetable productions as very nearly resemble them in character. Man's dietetic character is therefore *frugivorous* and *granivorous*, and not *carnivorous* or *omnivorous*. So says comparative anatomy.

This perfectly agrees with the direction given by the Almighty himself to Adam in the garden of Eden, concerning his food, while he was yet in a perfect state of nature. 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." Gen. i. 29. Here was permission given to eat *seeds* and *fruits*, but none to eat *flesh*. This perfectly indicates man's natural dietetic character. *Fruits and seeds* are his only proper food. So again to Noah and his sons, although they had undoubtedly departed very far in their habits from the original design of their constitutional natures, and consequently deteriorated and depraved all the organs and instincts of their systems,—God said: "Every moving thing that liveth shall be meat for you; even as the green herb have I given you all things. But *flesh*, with the life thereof, which is the blood thereof, *shall ye not eat*." Gen. ix. 3, 4. Here God himself prohibited, expressly, the eating of *flesh and blood*. True, when Moses came to give the law to the Israelites, having to deal with a people far gone in depravity, and deeply sunk in all kinds of sensuality,—accustomed for ages to the "flesh-pots of Egypt," and almost inseparably wedded to their unnatural lusts,—he was forced to permit flesh-eating, to some extent, in order to insure the reception of and obedience to his code of laws: otherwise they would probably have rejected it at once. The experiment had been tried of taking them through the wilderness, or desert, without flesh to eat,—or at most with very little. But the whole multitude "fell a lusting;" and they murmured and wept, saying: "Who shall give us flesh to eat? We remember the flesh which we did eat in Egypt freely." In answer to this rebellious murmuring, God sent them quails. "But while the flesh was yet between their teeth, before it was chewed, the wrath of the Lord was kindled against the people, and the Lord smote the people with a very great plague." Num. xi. 33. Knowing the character of the people with whom he had to deal, Moses, if he would have his law obeyed, was forced to permit flesh-

eating, to some extent; but still he forbade the worst kinds. He forbid them to eat the flesh of those animals which are most unfit for food, such as the swine; and also the fat and blood of those animals the flesh of which they were permitted to eat. "It shall be a perpetual statute for your generations, throughout all your dwellings, *that ye shall eat neither fat nor blood.*" Lev. iv. 17. "Ye shall eat no manner of fat; of ox, or sheep, or of goat." Lev. vii. 23. As far as the Mosaic economy went on this subject, it went to discourage flesh-eating, and confine it to the least objectionable kinds; I do not pretend that it forbid it altogether.

On one occasion Christ was asked concerning the Jewish law of divorce,—whether divorce was right. He answered that it was not, except for one cause. They then asked him why Moses had permitted it; and he answered, "Moses, *because of the hardness of your hearts*, suffered you to put away your wives: but from the beginning it was not so." Matt. xix. 8. Now I take the same ground in regard to his permission to eat flesh. Because of the hardness of the Jews' hearts—or because of their ignorance, depravity, sensuality, and obstinacy, Moses permitted them to eat the less objectionable parts of the carcasses of the least objectionable animals. By referring to the law you will see that among beasts, only certain kinds of *herbivorous* animals were permitted to be used. All *carnivorous* and *omnivorous* beasts were strictly prohibited. These are much more pernicious as food now, and were at that time, than herbivorous animals, as is natural to suppose they would be, supposing vegetable substances to be the natural food for man. Fat is also the worst part of the carcass; and blood is worse than flesh. These were prohibited.

But admitting all that advocates for flesh-eating can claim—that the law of Moses is authority to us in this matter, and that it sanctions flesh-eating,—what then? Does it sanction the eating of all kinds of flesh which they eat? Does it sanction the use of *swine's flesh* for food? which constitutes such an immense proportion of the flesh eaten by Americans. Does it sanction the eating of fat? with which almost all kinds of food are mingled and by which they are debauched. If Americans would only live up to the dietetic regulations of Moses, there would be a most important and beneficial reform from the present absurd and pernicious

customs in which they now indulge. Let advocates of flesh-eating beware lest they condemn themselves in that which they allow. If they appeal to the law of Moses, let them abide by its decisions. Otherwise let them acknowledge that it is to us no dietetic guide.

But the strongest objection from the Bible which is urged against the doctrine that flesh-eating is opposed to man's constitutional nature, is the fact that Christ ate flesh. It is said that if it had been improper food, he would not have eaten it. But this is not conclusive. Christ came, not to teach *physiology*, but morals and religion. He took philosophical and physiological doctrines just as he found them; that is, he paid no attention to them. He had another mission. It was to teach ethical and religious doctrines. It is not necessary to suppose that he was any better acquainted with anatomy or physiology, or any other natural or physical science, than the rest of the Jews; or that he ever thought on these subjects. He was inspired to reveal and confirm his message or gospel, and for no other purpose; at least for no purpose disconnected with this main one. Moral and religious truths could not be certainly discovered by mere human powers; hence the necessity of a direct revelation. But scientific truths, (physiological among the rest,) can be discovered and certainly determined by the exercise of our natural powers and faculties; and this exercise is necessary to the most perfect development and cultivation of those powers and faculties; hence a direct revelation on these subjects would have been an injury rather than a blessing to the world. Therefore Christ was not inspired to make any such revelation, and consequently, knew no more on these subjects than did the most ignorant Jews. I do not say but that he *might* have known as much of science as he did of religion, had he chosen; but that he never directed his thoughts to that subject, being constantly occupied with his mission and office. Upon moral and religious subjects his knowledge was intuitive and complete. So probably it might have been upon scientific subjects, had he chosen to direct his attention in that direction; and so undoubtedly he would have chosen, if he had been a scientific and not a religious teacher.—The eating of flesh by our Saviour, therefore, does not prove, nor go any way towards proving, that flesh-eating is in accordance with the human organic

laws, any more than the drinking of wine by him, or the turning of water into wine, proves wine-drinking to be in accordance with the same laws, and thus refutes the tee-total temperance doctrines. — *Watching*, or remaining awake and up in the night, the time which nature has appropriated to sleep, is, beyond all doubt, a transgression of the laws of our being—a violation of the physical laws governing the human organism—and yet Christ watched. I repeat, the only reasonable and tenable ground upon this question, is the one here contended for; that Christ was not a scientific, but a religious teacher; that he took scientific doctrines just as he found them, without directing his attention to the question whether they were true or false,—having it occupied upon other subjects, those connected with his mission and office; therefore that his eating of flesh and drinking of wine go no way towards proving those practices to be in accordance with Nature's laws. He knew nothing of physiology, and therefore did not teach it; and in his habits followed the common customs of the Jews. So that Christianity leaves us just where we ought to be left,—to ascertain the truth upon these subjects by the use of our natural powers and faculties. Christianity is a moral and religious, and not a scientific system; it pronounces neither for nor against any scientific doctrine or dogma: that is, it says nothing upon the subject, authoritatively, either way.

Suppose that some advocate of political usurpation and despotism should stand up and adduce the example of Christ's submission and obedience to the authority of the Roman Emperors, as proof of the divine right of kings, and conclusive evidence against the doctrines of republicanism; what would Americans say to such an argument? Suppose he should insist that political despotism is right and proper, and in no way opposed to the true principles and laws of political economy and government, which God has established for the proper regulation of intercourse and dealings between individuals and the state,—because if it had not been, Christ never would have submitted to it, and obeyed its decrees, and taught others to do so;—that he should say, the iron rule of foreigners imposed upon a people by military conquest, and its exorbitant taxation, are strictly lawful, right and proper; because if it were not, Christ never would have practiced obedience to the authority of

Rome, taught the same to his followers, and paid taxes to Cæsar. But what would the sainted sires of our revolution have said to such arguments? those noble men who poured out their blood like water, rather than submit to the domination and unjust taxation of Britain. They would have answered, truly, that Christ was not a *political teacher*; and that his theoretical and practiced submission to imperial despotism is no argument in its favor, or against republicanism; and that the fact of his paying taxes to Rome does not prove, nor go any way towards proving, that such taxes, paid to a foreign tyrant, are not unjust, oppressive, injurious, iniquitous in every respect, and totally opposed to the laws of nature and of God. And every American would have acknowledged the justice of this answer. It would have been sound and conclusive.

Now I take the same ground with regard to the fact that Christ ate flesh. He was not a *physiological teacher*; and his conformity to the almost universal custom of flesh-eating is no argument in its favor, and does not go at all to prove that the custom is not opposed to the organic laws, and in every respect injurious and pernicious to those who practice it.—One reason why he practiced and taught such implicit submission to Rome might have been the fear of exciting hostile influence against his gospel, and its believers. So one reason why he conformed to the common practice of flesh-eating, might have been the same. One reason why he did not teach physiological doctrines, and thus inculcate the true principles of dietetics, including of course the doctrine of total abstinence from flesh-meat,—supposing that his attention was ever turned to the subject,—might have been the certainty of thus arraying the whole force of Jewish appetite and prejudice in favor of this practice, in deadly hostility to him and his gospel. This was not necessary. As it was, although the leaders of the Jewish Church were his enemies, yet “the common people heard him gladly.” But if he had forbidden them to eat flesh, it might not have been so;—it probably would not have been so. If he had been asked, as he was concerning divorce, he might have forbidden it, for aught we know.

I would remark in general concerning the argument from the Scriptures, that the Bible does not profess to teach *scientific*, but

moral, and *religious* truth; and that scientific questions ought not to be taken to the Bible for solution; for if they are, no solution can be found. If the Bible is arrayed against the teaching of science, not only will the advancement of science be retarded, but respect for the Scripture will be lessened in many minds: however, science will at last triumph, and the Bible be seen to be not in opposition to it. It was once contended that the Scriptures contradicted astronomical and geological truth, much more strongly than it is now contended that it contradicts the teaching of anatomy and physiology, in the case before us. But it has been found that they do not contradict the former truth; and they do not the latter.

Concerning the evidence from *comparative anatomy*, we have seen that it goes strongly to prove determinately that man is naturally a *frugivorous* animal; and consequently not designed nor constitutionally adapted to the use of flesh-meat at all. No enlightened anatomist now pretends to deny this: but many of the most learned men in this and kindred sciences which the world ever saw, and who were at the same time *flesh-eaters*, acknowledge that the whole evidence of comparative anatomy is directly against the practice, and in favor of a vegetable diet. We will quote the opinions of some of them, as presented by Mr. Graham in his "Science of Human Life."

"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.'—Sir Everard Home says, 'While mankind remained in a state of innocence, there is every ground to believe that their only food was the 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 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 molares on the other, would allow him neither to feed on grass nor devour flesh, were these elements 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 monkeys, all of which, in their natural state, are completely frugivorous.’ 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 his 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. Those animals whose teeth and digestive apparatus most nearly resemble our own, namely, the apes and monkeys, are undoubtedly frugivorous.’ ”

The above statements, it will be remembered, were made by flesh-eaters. The force of truth compelled them to admit that the whole evidence of comparative anatomy was strongly against the practice of flesh-eating, and as far as it went proved man to be *frugiverous*.

These statements were made, too, not by common or ignorant men, who knew nothing of the subject upon which they spoke, but by some of the most profoundly learned and able men that ever lived. Their opinions are certainly of more importance than the opinions of some conceited fool, who thrusts upon you without proof the assertion that man is naturally *omnivorous*.

In order to judge correctly as to the proper weight to be attached to the evidence of comparative anatomy in the decision of this question, let us consider that everything in nature is perfectly adapted, in *structure* as well as constitutional nature, to its use, or to the purpose for which it was designed. In the organized world, those organs which most nearly resemble each other in structure—whether in the same individual or in different ones—are nearest alike also in function. In particular, those animals which most nearly resemble each other in the structure of their alimentary organs, also most nearly resemble each other in the character of their proper and natural food. Carnivorous animals have their alimentary organs constructed in a certain manner; *herbivorous* animals have theirs constructed according to another and different model; *omnivorous* animals, theirs in another way; and *frugivorous*, on another model still. In all there is the strictest relation between their natural food and proper dietetic habits on the one hand, and the structure of their alimentary organs on the other. The *carnivorous* never have the organs of the fruit-eating animals, nor the latter those of the former.—Now, when it is found that man has alimentary organs exactly like those of the fruit and seed-eating animals, is not the conclusion almost irresistible, that he was designed and constitutionally adapted to live as they do,—that is, wholly on seeds and fruits? If he was designed to be omnivorous in dietetic character, why did he not have omnivorous organs; that is, organs like other omnivorous animals? If you say, he was designed to eat *cooked* food, and therefore different in character from that eaten in the natural state by omnivorous animals, I still ask, why he happened to have alimentary organs designed for the use of *cooked flesh*, etc., precisely like those given to other animals for the use of seeds and fruits in their *natural state*? Is cooked flesh identical, in character, to seeds and fruits in their natural state? If not, then the supposition that man is omnivo-

rous, would violate all the analogies of nature. If man had been designed to live upon cooked flesh, etc., he would have had alimentary organs different in structure from those of any other animal, and adapted to the peculiar and anomalous nature of this dietetic character: certainly he would not have had the organs of those animals which were designed to subsist exclusively upon seeds and fruits in their natural state.

When all this is duly considered, and allowed to have its proper weight, it will be acknowledged, I think, that as far as comparative anatomy can be relied upon to prove anything, it proves man to be designed and constitutionally adapted to subsist wholly upon *fruits and seeds*, or succulent and farinaceous vegetable substances; and that he is in no respect a flesh-eater. This is sufficient to decide the question, if there was nothing else. But when we add to this the *physiological*, the *medical*, the *political*, the *economical*, the *experimental*, and the *moral arguments*,—all going to establish the same doctrine as the *anatomical*,—we have indeed a sevenfold cord which cannot be broken.

Says Shelley, the poet,—“Comparative anatomy teaches us that man resembles frugivorous animals in everything, and carnivorous in nothing; he has neither claws wherewith to seize his prey, nor distinct and pointed teeth to tear the living fibre. A mandarin of the first class, with nails two inches long, would probably find them, alone, inefficient to hold even a hare. It is only by softening and disguising dead flesh by culinary preparations, that it is rendered susceptible of mastication or digestion, and that the sight of its bloody juices does not excite intolerable loathing, horror, and disgust. Let the advocate of animal food force himself to a decisive experiment on its fitness, and, as Plutarch recommends, tear a living lamb with his teeth, and, plunging his head into its vitals, slake his thirst with the streaming blood; when fresh from the deed of horror, let him revert to the irresistible instincts of nature that would rise in judgment against it, and say, Nature formed me for such work as this. Then, and then only, would he be consistent.”

I would ask phrenologists, if organization does not give character? As is organization, so is character. Is not this true, throughout all nature? Then if a certain alimentary organization

gives a certain alimentary character in certain animals, why will not the same organization in man give the same alimentary character? If a certain organization of the alimentary organs in the orang give him a *frugivorous* and *granivorous* alimentary character, why will not the same organization in man give *him* the same alimentary character?

CHAPTER IV.

THE PHYSIOLOGICAL ARGUMENT.

EVERY human being is endowed with a certain and definite amount of *constitutional stamina*, or *vital energy*, which may be called the *fund of life*. This fund is of a definite amount, and unreplenishable. When it is expended, the vital operations must of course stop, and the individual die. He may die before it is all expended, being cut off by disease; but if there be no disease, he must die when the fund of life is exhausted. This is what is called *dying of old age*.

This *fund of life* may be compared to the tallow of a candle, or the oil of a lamp: when the oil is expended the lamp must go out. The flame of the lamp may be extinguished before the oil is all consumed, or it may not; but at any rate it must expire as soon as the oil is consumed. So when the fund of human vitality has been all expended, the lamp of life must cease to burn. The lamp has no power to replenish its fund of oil; human beings have no power to replenish the fund of life. We might do it for the lamp, and God might do it for us, but not we for ourselves. Every moment that the lamp burns, a portion of its oil is consumed; every particle of flame produced is at the expense of a certain amount of oil; the more the flame is increased in volume and intensity, the faster is the oil consumed. So of human existence; every moment of it consumes a portion of the fund of life; every vital function is performed at the expense of a certain amount of vitality; the greater the intensity of vital action, the faster is it consumed;—hence, as we may increase the flame of the lamp and cause it to burn out its oil twice or thrice as fast as necessary, so we may, by increasing the intensity of vital action, squander our fund of life twice or thrice as fast as it needs to be expended. Anything and everything in our habits which increases the intensity of vital action beyond the proper limit, causes

a wasting of this fund, which can never by any possibility be replenished; death is therefore hastened.

“Though the vital energies and sensibilities which we exhaust to-day, are replenished to-morrow, yet of necessity the process has taken something from the measured fund of life, and reduced our vital capital in proportion to the frugality or prodigality of our expenditure. However proper the nature and condition of our aliment,—however completely all our laws of external relation are fulfilled,—however perfectly the functions of our organs are performed, and however salutary their results, yet every digestive process of the stomach,—every respiratory action of the lungs,—every contraction of the heart, draws something from the ultimate and unreplenishable resources of organic vitality: and consequently the more freely and prodigally we expend the vital properties of our organs, the more rapidly we wear out the constitutional powers of replenishment, and exhaust the limited stock of life.”—
GRAHAM.

The above physiological doctrine needs only to be stated to be admitted as true, by all intelligent and reasonable persons. If it were not true that the fund of life is of definite and limited amount, and unreplenishable, then there would be nothing to hinder our living for ever. It is the vital principle or power with which our organic systems are endowed, that enables them to supply the constant waste which they suffer, and maintain their forms. As soon as that ceases to operate, our bodies speedily return to their native elements. If this vitality was something which did not wear out, or was not exhausted by its action, it would continue to produce the same results in the vital economy for ever, which it does during our lifetimes. But we know it does not, and cannot; that we cannot survive beyond a certain limited number of years. The functions of life exhaust their cause. Vital action wears out vitality—exhausts the fund of life. The more intense the vital action, the more rapid the exhaustion, and the sooner death will approach.

This principle is universally admitted. Who does not know that excessive labor will wear out the laborer prematurely! Muscular labor or action is *vital* action, and, of course, exhausts vitality in proportion to its intensity. When the labor is excessive—that is, more than the welfare of the system demands—it causes a waste

of the fund of life, and wears the person out prematurely. Observation teaches us that it is the same with horses, and all animals. Again; *alcoholic drinks*, as everybody knows, greatly increase, in proportion to the amount used, the vital action of our systems, and wear them out proportionally soon. Anything, in fine, which increases the intensity of the vital action beyond the proper limit, is a waste of the fund of life, and to the same extent hastens death. The sooner this fund is wasted, the sooner we shall have to die, and nothing can save us. All this is said on the supposition that no disease is produced which will prematurely cut off the victim. This is hardly supposable; especially if the increased vital action is produced by means of *artificial stimulants*, or the use of improper articles of food and drink. It is a law of the vital economy which cannot be disregarded with impunity, that whatever artificial means are taken to hasten its action, inevitably tend to derange, and, finally, destroy all its functions, prematurely wear out its life, induce all manner of diseases, hasten a decrepit, infirm, and miserable old age, and at last lay the deluded victim in an early grave! Of all things, artificial stimulants are the best calculated, except actual poisons, to induce diseases both of body and of mind. They exhaust the powers of the system, weaken the functions of every organ, debilitate and prostrate the energies of the whole vital economy, and render it almost incapable of resisting any injurious influence which may be brought to bear upon it; consequently those who use them habitually are subjected to all manner of diseases, by which the wheels of life are frequently stopped before one half the power that moved them is expended.

After the excitement caused by an artificial stimulant has subsided, and before the next application of it, a reaction always takes place, corresponding to the degree of stimulation; the action of the vital powers falls as much below the standard of health, as it was raised above; and a distressing languor and debility are produced, which make the victim extremely wretched. If now, any injurious influence is presented—if the slightest exposure is undergone, or anything of the kind takes place—disease is almost sure to follow; for the prostrated organs have no power to resist. Thus is produced an almost constant succession of colds, fevers, etc., etc. Therefore, *artificial stimulation* is not only a prodigious waste of

the precious fund of life, but is the efficient cause of innumerable diseases; and whatever produces it, is a scourge to the world of mankind.

We will illustrate the subject by another comparison. The vital economy may be compared to a *watch*. The organs which make up the body are the wheels and other machinery. The *fund of life*, or organic vitality, is the mainspring which moves the whole. The length of the chain represents the *quantum* or amount of vital energy which we possess. As soon as we begin to live, we commence the expenditure of vitality, the same as the watch begins to run down as soon as it begins to go. As the faster the watch runs the sooner it will run down and stop, so the faster the wheels of life are made to move, by means of stimulants, the more rapidly will vitality be expended, and the sooner we shall die. Moreover, by hurrying the watch faster than it was designed to go, we should be almost sure to injure some of its delicate workmanship and derange the action of all its machinery; so by stimulating the vital economy, we must inevitably injure some of its delicate tissues, derange the functions of the organs, introduce disorder into the working and action of the vital machine, and produce all manner of diseases. If we hurry the machinery of life faster than God designed it to go, besides wearing it out before its time, we shall introduce disorder and confusion among the wheels, which will, perhaps, stop the whole concern, and lay it in the grave, before the chain of life is half run down. Again; the ultimate design of the watch is to keep correct time, which is defeated by hurrying its action, and introducing disorder among its parts. So the ultimate end of the vital economy is to produce rational enjoyment or happiness, which is also defeated by hurrying its operations, by means of stimulants, faster than nature designed it to go, and thus introducing disorder and disease into the domain of life. This course will as certainly produce wretchedness and misery and early death, as night will follow the setting sun.

We have said that every person is endowed with a certain amount of vitality—a definite and unreplenishable *fund of life*, which can never be increased, but which can be rapidly squandered, and is rapidly squandered by means of artificial stimulation. This is equally true of every organ and part of the body, taken by itself. The organs which make up the body act in concert, and constitute

a harmonious whole ; nevertheless, each organ is separately endowed with its own amount and peculiar kind of vitality, which gives it its nature and functions. The vitality of one organ cannot assist that of another, or supply its place, any more than one function can be exchanged for another—as eating for breathing, etc. If the vitality of the stomach, for instance, be expended, while half that of the lungs and of all the other organs remains, still the abundant remaining vitality of the lungs and other organs cannot assist the stomach, or be substituted for its exhausted vitality, any more than the function of breathing can be exchanged for that of eating ; and as the vital economy cannot subsist without the function of the stomach, the person must of course die, just as though the whole vitality of all the organs of the body was completely exhausted. Hence, any stimulant, or any other means which should cause the vitality of the stomach to be exhausted twice as rapidly as necessary, even though it did not affect the rest of the system in any way, and caused no disease, would still cut off half of our days. But it would injuriously affect the whole system by sympathy, and almost inevitably cause diseases. This exhaustion of the vitality of of an organ is what is called, in common language, *wearing it out*. We often hear of the stomach or some other organ being *worn out* ; that is, its measured fund of vitality is exhausted. But as a general thing, these organs become so much diseased, as to stop their functions, and cause death, long before their vitality is expended. The truth is, that an individual now seldom dies of exhausted vitality, either of the whole system or of a particular organ, but of disease. Now, it so happens that in the present deteriorated condition of the human constitution, the several organs of the body are endowed with very unequal amounts of this vital principle of which we have spoken. In the normal condition of the constitution, of course the vital fund of each organ would be measured to last the same length of time ; that is, every organ would be constituted to last equally long. But it is not so now. In some, one organ is endowed with so small an amount of vitality, that it cannot, by any possibility, last but a short time : this is called a *weak organ*. If this small fund be prodigally squandered, death will ensue so much the sooner. It is the amount of the vitality of the weakest organ—the weakest organ, I mean, which is essential to life—which constitutes the measure

of the available vitality of the system ; for when this is exhausted death must ensue, though the other organs were not half worn out.

An organ may also be imperfectly organized, or in a bad *physiological condition*, so that the expenditure of a larger amount of vitality will be necessary in performing its functions, than would be otherwise ; just as more force would be necessary in doing a given piece of work with an ill-constructed, dull tool, than would be with one well made and sharp. If a saw-mill was ill-constructed, and its saw dull, more water would be necessary to saw a given amount, than if it was well made and its saw sharp ; and of course the pond, if unreplenished, would be sooner exhausted. Now, *artificial stimulation* not only wastes vitality by increasing the intensity of vital action, but, being something unnatural and opposed to the laws of the stimulated organ, injures its organization and deteriorates its physiological condition, and thereby renders the expenditure of more vitality necessary to perform the same amount of function. In this way, when the reaction takes place after stimulation, although the vital action is very languid, still, as the organization of the organ is injured, and its physiological condition deteriorated, the expenditure of much more vitality is necessary in performing its function, on account of its bad physiological condition. So that vitality is wasted during stimulation, and during reaction.

I have mentioned *artificial stimulation* : I will explain what I mean by it. The stomach, for instance, is designed to receive and digest certain substances, which are intended for human food. It is physiologically adapted to its office, so that upon the reception of these substances, it is stimulated to the performance of its function. If the proper articles be taken, the intensity of vital action which they will excite in the stomach will be just sufficient to enable it to properly perform its function, and digest, perfectly, the alimentary substances. In this case, there will be no waste of vitality. But there are other substances which may be made to serve for food, but which are not perfectly adapted to the physiological nature of the stomach. If some of these be introduced into it, they will excite a more intense vital action in that organ than do the first named substances, or than is necessary to enable it to perform the function of digestion. Not only will there be a corresponding waste of vitality, but the functional result will be much deteriorated. A man hur-

ried to do a piece of work much faster than is natural to him, must of course slight it ; he cannot do it as well. So neither can the stomach do its work so well, if hurried in its function, as it would otherwise. This increasing of the intensity of vital action in the stomach beyond what is necessary to enable it properly to perform its function, is what, for the want of a better term, I call *artificial stimulation* ; and the substances which produce it, *artificial stimulants*. The same with regard to other organs.

By means of the nervous system, there is the most intimate sympathy between the physiological condition and action (especially if abnormal) of the several organs of the body : "If one member suffer, all the members suffer with it." So that if one member be stimulated to intense vital action, all the organs partake more or less of its condition ; or else the action of some of them is depressed : at any rate all "*suffer*." This is particularly true when the stomach is stimulated. It is the great alimentary centre, and is intimately connected by means of nerves with all the vital organs of the body. Any abnormal physiological condition which it is induced to take on, is immediately felt by other organs, which take on to a greater or less extent its abnormal condition. If it is stimulated to intenser action, the system feels and partakes of the stimulated condition,—and when the reaction takes place, the whole system partakes of the physiological depression, and of the injury and waste of vitality produced. Now for the application of these physiological facts and principles to the subject before us. What bearing do they have on the use of flesh-meat ?

Says Mr. Graham : "It is now well ascertained and universally acknowledged by those who are properly informed on the subject, that flesh-meat is much more stimulating or exciting in proportion to the quantity of nourishment which it actually affords to the system, than proper vegetable food is." This everybody knows, and indeed uses as an argument in its favor. After partaking of it freely, a *feeling* of increased strength is experienced, which is always consequent upon a stimulated condition of the domain of organic life ; and after some time, when its effects are exhausted, there is a reaction and exhaustion takes place, such as we have before described as consequent upon stimulation, but which is never felt, except by those who have stimulated their systems. Indeed, so

strong is the stimulating property of flesh, that under certain circumstances it will actually produce *intoxication*. Dr. Thompson, of Glasgow, in a work recently published by him, records several instances of intoxication produced by animal food. One of the cases was as follows:—While an army surgeon in India, he obtained some extra service of some Hindoo soldiers, by promising them a ram for dinner, an acceptable present for them, who rarely tasted animal food. The mutton being roasted, and greedily devoured by them, produced all the symptoms of intoxication,—putting some to sleep, making others stagger, and others talk excessively, and play the usual pranks of ebriety. I have myself experienced this intoxicating effect of flesh-meat, to some extent; but where it is used habitually, it is not felt. It is just so with tobacco. The feverish excitement attending the digestion of flesh, produced by its stimulating property, has been called by medical writers “the fever of digestion.”

“Now as flesh-meat is more stimulating to the system, in proportion to the nourishment which it affords, than pure vegetable aliment is, so all the processes of digestion, assimilation, and nutrition, in the use of the former, are more rapid, and attended with a greater expenditure of vital power and waste of organized substance, than in the use of the latter. The flesh-meat in the stomach, the chyme formed from it in the alimentary cavity, the chyle in the lacteals, the blood in the heart, veins, and capillaries, and all the fluids and substances elaborated from the blood, are more exciting to the parts on which they severally act, and cause a greater intensity and rapidity of vital action and expenditure of vitality in the whole system, than is effected by alimentation, digestion, and nutrition in the use of pure and proper vegetable food. And hence the well known fact, that in the most healthy and robust men who have been accustomed to a pure vegetable and water diet from infancy, the skin is uniformly much cooler, and the pulse is slower from ten to thirty beats in a minute, than in those who subsist on a mixed diet, in the ordinary manner of civic life.”

We see, therefore, that the use of flesh-meat must cause a prodigious *waste* of the *fund of life*, and consequently, even if there is no disease produced, greatly shorten our lives. It will wear out and exhaust the vitality of the stomach and other organs, long before

their time. The weakest organs will suffer and break down first, and the miserable victim will "die as a fool dieth." But direct disease will be produced. Stimulation produces abnormal action in the stimulated organs—action which is not natural—that is, diseased action. By continuing the stimulation by the habitual use of flesh-meat, this abnormal action will become habitual to the excited organ; this is disease, which will be more or less severe according to circumstances. This is one way in which the use of flesh-meat will produce disease; but there are many other ways.

As was before remarked, anything which hurries the vital action of any organ faster than natural—faster than it was designed to act—must deteriorate the functional result; just as a man forced to do a piece of work faster than is natural to him, cannot do it as well. The use of flesh-meat hurries the action of the stomach, so that the digestion and chymification is less perfectly performed. Consequently the chyle, or nourishing fluid, is less perfect, more crude, and of course not so well adapted to its end. What is the consequence? The chyle is poured into the blood, and goes to supply the waste of the system; it supplies the materials for assimilation to all the organs and parts of the body, and to all the secretions. If it be of an imperfect nature, of course the organs which are nourished by it will suffer. To have the organs of the body built up of imperfect chyle, would be like building machinery of imperfect or rotten timber. The organs so built up would be of inferior functional power, and necessarily subject to disease; just as the machinery supposed would be weak, inefficient, and subject to constant decay. Now this is precisely the case when flesh-meat is used for food. The structure and physiological nature of the alimentary organs not being adapted to the use of flesh for food, but of *seeds and fruits*,—and flesh having the property of unduly hurrying the digestive function, and so deteriorating the functional result,—the chyle produced must be imperfect, and of inferior constitution and properties;—hence, all parts of the body being nourished by it would be imperfectly built up, inefficient in function, and subject to all kinds of disease. The secretions being made from the chyle, or from blood supplied with the chyle, will also be imperfect, and imperfectly perform their office; which will cause more evil to the system. The chyle being crude and imperfect,

parts of it will be unfit for assimilation, and remain as impurities in the blood. Add to this that the excretory organs being inefficient, cannot properly remove the impurities from the blood, and we shall see a still further active cause of disease and death.

As a proof of what we have said concerning the effect of flesh diet upon the nature and vital constitution of the chyle, we may mention the fact, that if chyle which has been elaborated from flesh-meat be taken from the living vessels, it will begin to putrefy in three or four days at the longest; while that which has been elaborated from pure and proper vegetable aliment, under the same circumstances, will remain sweet and perfect for as many *weeks*; yet it will, in the end, putrefy, with all the phenomena of that formed from flesh-meat. This shows that the latter is much more perfectly formed and more highly vitalized than the former. A body nourished by the latter highly vitalized chyle, must be superior in every respect to one nourished by the former. If there were no other evidence, this would be sufficient of itself to settle the question for ever concerning the propriety of the use of flesh-meat.

“It is a well known fact also, that human blood, formed from animal food, will putrefy when taken from the living vessels, in a much shorter time and much more rapidly than that formed from pure vegetable aliment; and that there is always—other things being equal—a much greater febrile and putrescent tendency in the living bodies of those who subsist mostly on animal food, than in those who subsist wholly on pure vegetable aliment. Hence, if two healthy, robust men of the same age,—the one subsisting principally on flesh-meat, and the other exclusively on a diet of vegetable food and water,—be suddenly shot down and killed, in warm weather, and both bodies be laid out in the ordinary manner, and left to the action of the elements and affinities of the inorganic kingdom, the body of the vegetable-eater will remain two or three times as long as the body of the flesh-eater will, without becoming intolerably offensive from the processes of putrefaction.”—GRAHAM.

The result, therefore, of the physiological argument, thus far, is as follows:—Flesh-meat is much more stimulating to the vital economy, especially to the alimentary organs, than proper vegetable food. It excites and hurries their action much more than is necessary, natural, or proper; and hence causes a prodigious waste of

the limited and unreplenishable *fund of life*: thus rapidly hastening dotage and death. The vitality of the weakest organs will be exhausted first, and the ignorant or foolish victim be cut off in the midst of his years. After the stimulation, a reaction and prostration will take place, during which the physiological condition and tone of the organs will be so much deteriorated, that, as in the case of dull tools, the expenditure of much more vitality will be necessary to produce the same functional result, which will be inferior and much less perfect after all. Thus will vitality be wasted during stimulation and during reaction. But this unnatural stimulation, like working a machine faster than it was designed to go, will introduce disorder and disease into all parts of the system. The alimentary processes, being hurried, will be less perfectly performed, and, as a consequence, the chyle will be of inferior quality, and much less highly vitalized. Therefore the blood will be less pure and perfect, and all parts of the system, which are nourished and built up from it, will be imperfectly organized, inefficient in function, and the pest-house in which will riot all manner of diseases.

The animals which are commonly eaten in this country being subjected to artificial modes of life, and above all to prodigiously excessive alimentation in the process of fattening, are all more or less diseased before being killed. Swine especially are apt to be afflicted with dyspepsia, liver-complaint, rheumatism, and gout. Many of them—perhaps most—would soon die of their diseases, if the knife did not prevent it. It is no uncommon thing for fatted animals to die of disease just before they were going to be killed for food; and in thousands which are eaten without scruple, the diseased liver and shrunken lungs tell but too plainly what would have happened in a short time longer. The flesh of these diseased animals is eaten in large quantities, and thus is the poison introduced into the very centre of the domain of life,—and yet people wonder there is so much disease and sickness and premature death in the land! In the name of God, is there no regard even for *decency* left in the world, that human beings will continue to corrupt their bodies and fill them with putrid, loathsome disease and rottenness, by feeding upon the diseased flesh of dead carcasses! The Lord deliver me from such suicide! Most of the animals eaten are

more or less diseased; many of them far advanced; and all may be: this alone is sufficient to condemn flesh-eating.

Concerning the stimulating and exciting effects of a flesh diet upon the vital economy, it is admitted by intelligent advocates of flesh-eating, but is used as an argument in its favor. They say, we know it hurries the vital processes much faster than seeds and fruits—stimulates the system much more—and thus wears us out much sooner, and greatly shortens our lives; but then this makes us more efficient, and is indeed necessary in order to give us strength and capability to perform the amount of labor which we are obliged to perform. We should not be enabled to labor as hard as we are obliged to, upon simple vegetable aliment. We need the stimulation of flesh-meat to give us strength. Now this is all delusion, and mere moonshine! The idea that a flesh diet gives more strength and power of endurance than a plain vegetable diet, is exactly contrary to truth. It is false both in philosophy and fact.

Alcohol also stimulates the vital processes, and the whole vital action of the system, much more than flesh-meat, and gives a greater *feeling* of strength; but does its use enable any one to perform more labor? Is the spirit-drinker able to labor harder, or endure more, than the water-drinker? Precisely the reverse is the case. The stimulation of alcohol not only exhausts the vital fund rapidly, and thus induces early decay and premature death, but it actually renders its unfortunate subject weak and inefficient; unable to perform as much labor, or endure as much hardship, as the water-drinker. This everybody knows. And it is precisely so with the stimulation of flesh-meat. It hurries the vital action, and gives a greater *feeling* of strength; but this feeling is entirely fictitious, as in the case of the spirit-drinker. The flesh-eater is enabled to perform no more labor, nor so much; and at the year's end finds himself no stronger, but weaker, than the vegetable-eater. This must necessarily be the result from the nature of the case. In the first place, the digestion and assimilation of flesh-meat excites and stimulates the alimentary organs; and thus causes a rapid exhaustion of their vital energy, and a great waste of their organized substance. In order to keep up the intense vital action in the alimentary organs during digestion and assimilation, and to recruit their exhausted energies and restore their wasted substance afterwards,

there must be a prodigious determination of nervous energy and action in that direction. This will leave the voluntary muscles without a full supply of nervous energy, and of course weak and inefficient. Although the use of flesh will cause a much greater amount of vital action in the system, and thus wear it out prematurely, yet so much will be demanded in the alimentary organs, that a deficient supply will be left for the voluntary muscles. This might not be strictly the case at first, but when this stimulated condition of the alimentary organs became habitual, there would certainly be a smaller, or at any rate not an increased, amount of nervous energy left for the muscles. This is one reason why the stimulation of flesh diet would not increase the power and efficiency of the voluntary organs; because it is principally exhausted upon the domain of organic life. It might cause us to digest and assimilate more food, but not to perform more labor.

But a principal reason why it will not only not increase the capacity to perform labor, but greatly diminish it, is because of the imperfect organic structure and deteriorated physiological condition which it occasions in the voluntary organs themselves. The unnatural stimulation to which they are subjected, and especially the crude and imperfect chyle by which they are nourished, so injure their structure and condition, that much more vital energy is necessary, to enable them to perform the same amount of function. If an axe was of imperfect construction, and dull, it would require the application of twice as much strength to produce *half* as much impression upon the log, as would be the case with a well made and sharp axe. Here would be the application of *twice* the strength in order to produce *half* the effect; or *four times* the amount necessary. So with the muscles; if they are in proper condition, much less vital energy is necessary to produce vastly more effect. If they are in bad condition, more vital energy is necessary to produce less effect. Flesh-eating necessarily reduces the voluntary organs to a bad condition—like a dull axe—hence the flesh-eater cannot perform as much labor as the vegetable-eater, even admitting that flesh-eating causes a greater supply of vital energy to his muscles. He may waste the *fund of life* as rapidly as he pleases, but still he can never make his imperfectly organized muscles perform as much labor, or perform it as well, as will the more perfect ones of his

vegetable-eating neighbor. As soon as disease is produced, as it soon must be, the case is much worse; for a diseased system, stimulate it as much as you please, cannot of course be as efficient as one which is in perfect health.

But again; "action and reaction are equal." If you stimulate the vital energies above the standard of health, a reaction will soon take place, during which they will fall as much below this standard as they were raised above. Therefore, if there was anything gained in capacity for labor during the excitement, it would be lost during reaction. But the truth is, little if anything is gained during stimulation, even admitting health to be perfect; while there is an immense amount lost during reaction. So that, on the whole, flesh-eating, so far from increasing the capacity for labor, immensely decreases it. This is just what we should have expected. If man is not designed and constitutionally adapted to subsist on flesh, so that flesh is improper food for him, as we have shown, then of course its use would not give him so great a capacity for labor as *proper* food would.

But a proper experience is, after all, the best test by which to decide this point. We will speak of this when we come to the experimental argument. Suffice it to say, now, that all true experience from the beginning of the world is entirely in favor of the above conclusions. Everywhere and in all times, the most active, vigorous, skillful, robust, and hardy laborers, have been vegetable-eaters, seldom tasting of flesh. In fine, the great majority of the laboring population of the whole world do now, and always have, subsisted almost entirely without flesh. Be sure, they have had other habits quite as injurious as flesh-eating; but this makes the case much stronger in our favor. Are not the hardy peasantry of Europe, and of eastern and central Asia, who seldom taste flesh, notwithstanding other bad habits, able to perform as much labor as American flesh-eaters? Anybody that knows anything about it knows that they are much more. And in this country, all who have fairly tried the experiment of abstinence from flesh, for a sufficient length of time, have found their capacity for labor greatly increased. Those who have not made the experiment, of course know nothing about how it would be in their own cases.

With a pure vegetable diet the secretions and excretions are

much more pure, and less offensive, than with a flesh diet. Of this any one can easily satisfy himself. This is the case with the secretion from the lungs. The breath of the vegetable-eater is pure and sweet, while that of the flesh-eater often smells like the breath of a charnel house. This is the case among the inferior animals. Compare the breath of the flesh-eating tiger, or lion, or cat, with that of the vegetable-eating ox. One trial will be sufficient; you will never forget it.

When I was a flesh-eater, I used frequently to roll up a sheet of paper so as to form a hollow tube, breathe into the end, and then smell of it before the breath had time to escape. Faugh! What a horrid stench! It smelled like the effluvium from a putrefying carcass. I used to reason with myself, and wonder why man was cursed with such a stinking breath. I supposed then that it was unavoidable, and almost despised the physical nature of man. But since I have sanctified myself from flesh, grease, and other filthy and poisonous substances, the corruption and horrid stench of the breath have departed, and it remains pure and sweet.

Just so with the other secretions. In the morning my mouth used to taste as bad as possible; now perfectly sweet. The excretion from the skin is affected in the same way. It is sweet and inoffensive in smell from the skin of one who lives on proper vegetable food; but from the skin of the flesh-eater it has a sickening and disgusting stench. The constant sickening exhalation from the putrid excretions of the skin and lungs of the flesh-eater, renders his very presence almost as disgusting to him who is sanctified from such physiological abominations, as would be the presence of a rotten carcass! If you wish to have a lively conception of the lowest possible physical *hell*, just go into a tight room crowded with *flesh and grease* eaters. I would pray more fervently to be delivered from such a place of rottenness and corruption, than I would from the fiercest flames of a catholic purgatory! The very devil himself, if he is out and out as bad as he is fabled, need wish for no worse place to confine the choicest victims of his infernal wrath! The putrid exhalations from their skin and lungs load the atmosphere by which they are surrounded, with corruption, rottenness, and death! God of mercy, deliver me from such a place as from hell!—But the secretions and excretions of him whose dietetic and

other habits are correct, are either perfectly inoffensive, or nearly so ; at least there is an immense difference in this respect in favor of him who lives correctly.

The activity, suppleness, and agility of youth, as compared with old age, depend upon the large proportion of the fluids of the system, as compared with the solids. As old age approaches, the relative proportion of the fluids becomes less, and hence the stiffness, inactivity, and consequent imbecility of age. Anything which hurries the vital processes, hastens this change, and consequently brings on premature old age. Flesh-eating, therefore, like spirit-drinking, and for the same reason, makes its deluded subjects old and imbecile in the prime, or what ought to be the prime of their days ; brings on premature dotage, stiffness, inactivity, and all the miseries of old age. It makes men old when they ought to be young, and increases the weight of the hand of age upon them an hundred-fold.

Many suppose that because flesh is digested in a shorter time than some kinds of vegetable food, it is therefore *better* ; especially for dyspeptics and persons of weak digestion. But this is a delusion. It excites and hurries the digestive organs, and causes a greater expenditure of vitality and waste of organized substance, and consequently a greater degree of depression and exhaustion of those organs, than vegetable food ; and hence, although it passes sooner through the alimentary organs, and is therefore supposed to be easier of digestion, yet in reality it consumes more vitality, and prostrates those organs more, and if weak, especially, destroys them sooner. Therefore it should never be the food of dyspeptics, above all others.—But suppose flesh was easier of digestion than fruits and seeds,—which it is not in any proper sense of the term,—would it follow from this that it is the best food ? Not at all. The alimentary organs, like all the other organs of the body, were designed and constituted to perform a certain amount of a certain kind of labor, or function. They must habitually perform this, or they will become diseased. Just as the arm, which was constituted to perform a certain amount of muscular action, if hung in a sling and thus prevented from doing it, would soon become weak and diseased,—so the digestive organs, which were made to digest *fruits* and *seeds*, if kept digesting

food of a different kind and of easier digestion, would become weak and diseased, simply through insufficiency of exercise.

Again; many suppose that if any kind of food passes readily and without difficulty through the digestive process—as they call it, *sets well on the stomach*, or *agrees with the stomach*—that it must therefore be at least *harmless*. But the conclusion does not follow from the premises. In the same way might the drunkard prove alcohol to be better for him than water, because the former would *agree with his stomach*, while the latter would be vomited up. Tobacco at first will make its eater *sick*; which is an indication of nature that it is injurious and poisonous, and at the same time a warning against its use. But he can soon, by persevering in its use, so deprave his physical nature, and debauch his natural instincts and sensibilities, that they will no longer give this friendly warning; he then says, *tobacco agrees with his stomach*. But is it any the less poisonous and filthy than it was before?—It is no evidence at all that a thing is not injurious, because it does not distress us when we use it; because we have perhaps destroyed or debauched the instincts and sensibilities which were intended to give us this friendly warning. It is no evidence that a kind of food is harmless, because it agrees with the stomach, to use the vulgar phrase,—or that another is injurious, because it does not thus agree; for we may have, by transgression, excited diseased sensibilities, which give false alarms or warnings, and thus perhaps reject the best articles of food.

I admit that the natural instincts and sensibilities were designed to be our guide, and that they would be an unerring guide, if we had never perverted and depraved them, in the selection of our food and drink. But I also know that they can be and are so debauched and diseased, that they are no guide at all, or what is worse, a blind and false one. Unless we know they are in their normal condition, we cannot depend for an instant upon their indications. The special sense of *taste* was naturally as infallible a guide in the selection of proper food, as the instincts of the stomach were; but what kind of a guide is it now to human beings? Every one knows that the sense of *taste* may be educated to relish the most filthy and disgusting substances in nature, and loathe the most delicious. Although nothing is so loathsome to an

undepraved taste as tobacco, yet it may be and is so debauched that this foul weed will agree with it, and be demanded by it. Why may not the instincts of the stomach be depraved in the same way, and thus be made to "agree" with anything, good or bad? The fact is, we can train ourselves to like or dislike, relish or not, anything we choose in the shape of food. We can make the stomach agree with bad food, or bad food with that, in such a way that it will give us no immediate warning of danger. The sentinels of life—the instincts of the stomach—may be made to sleep at their posts, so that they will give no warning,—or corrupted, so that they will give false warnings. In this way flesh may appear to agree with the stomach, notwithstanding it is pernicious food.

But how does any one know that a certain kind of food *agrees with the stomach*, just because he feels no unpleasant sensations in that organ when digesting it? The stomach may be extensively and irreparably diseased, and the person know nothing about it. There have been hundreds of cases where the food appeared to be digested without difficulty, but when the persons came to die, their stomachs were found to be masses of disease, which must have existed for years. This may be your case, for aught you know.

But suppose your stomach remains without disease, and digests your daily meal of flesh without difficulty or unpleasant sensations; are you sure from this that flesh-meat does not hurt you?—We have seen that chyle formed from it is crude, imperfectly vitalized, and easily putrefying. Can it be that there is no injury from nourishing the body with such a substance? Especially if the vital action of the system be feeble, as it is in the case of debility or disease, there will be almost nothing to prevent this chyle from running rapidly into putrefaction, and thus corrupting the body, and filling it with disease and death.—Suppose your stomach does not become sensibly diseased, and continues to perform its function without difficulty or pain; what then? The weakest organs are always the first to suffer, and become the seat of disease. Flesh-eating may keep some of the organs constantly in a state of diseased action, while the stomach appears not to be affected at all. Suppose, for instance, that the lungs were weak, their fund of vitality small, and their vital action feeble. If their substance were nourished with chyle from *flesh*, the small and feeble vitality

could not perfectly assimilate the crude material, nor prevent it from becoming putrid either before or after assimilation; hence the lungs would inevitably become diseased. But the stomach, by virtue of its superior vitality, might better assimilate the imperfect chyle, and preserve it from decomposition; hence for a time it might remain healthy.—Paradoxical as the assertion may seem, the stomach may for a time remain comparatively healthy, *because* the lungs or some other organ is diseased. Flesh-eating, by its exciting or stimulating properties, produces *nervous irritation*, or *diseased nervous action*. This may centre in one organ or another. Suppose it manifests itself in the *lungs*? Then they will become the seat of disease, which will operate as a kind of *safety valve* to protect the rest of the body.

It is upon this principle that diseases are cured by means of *counter-irritants*, such as seatons, blisters, etc. *Biles* are natural counter-irritants. By withdrawing the nervous irritation, or diseased action, to another part, they relieve the affected organ and suffer it to recover. So diseased lungs, or other organs, by drawing off the diseased action which is constantly manufactured in the stomach, by the digestion of improper food, may for awhile protect that organ and keep it in comparative health; just as the weaker parts of a steam-boiler, by bursting, would protect and preserve the stronger parts. But this protection can only last as long as the function of the diseased organ, especially if a vital one, is tolerably well performed. If the lungs should become so much diseased as not to perform their function, the blood would speedily become so impure as to destroy the stomach and the life of the person.

Now, in the case of flesh-eating, the person is sure it does not hurt him, because it *agrees with his stomach*; that is, the stomach has been so much depraved that its instincts and sensibilities will not warn him of danger; and is not so much diseased but that it will perform its function without difficulty: although he may have distressing asthma, bronchitis, or some other disease. In this case the diseased action which is constantly produced by improper food, in the way we have mentioned, is the fuel which feeds the raging fires of disease in the lungs or other organs. But yet the person cannot see how flesh and grease-eating can

cause his asthma, or bronchitis, or other disease,—so long as it does not hurt his stomach. He is glad, withal, to find an excuse for, or silence an objection against, his sensuality and gormandizing; and therefore continues to go on blindly or perversely, adding fuel to the fire of his diseases, and at the same time wondering and lamenting that he cannot cure his asthma, or other afflictions. Poor fool! His lust for food is fast destroying his life, and makes his whole existence wretched; and he all the time justifying himself because flesh and grease *agree with his stomach!* When will he learn wisdom, and purify himself from his sensuality and lusting! Until he does, he must expect suffering, wretchedness and wo. If he will sow the wind, he must reap the whirlwind! Medicine cannot protect him.

Rev. Mr. P. M., a clergyman of my acquaintance, was debating the subject of flesh-eating with me one day. After conversing some time, he brought the argument to a close, as he supposed, by the following conclusive assertion:—"Whatever you may say or prove with regard to other men, I know that as for me, flesh-meat digests easier and better, and with less difficulty and unpleasant sensations, and agrees better with the stomach, than any other food; therefore flesh is not injurious to *me*; and a portion of it, at least, in my daily food, is the best aliment which I can possibly subsist upon,—whatever may be its effects in other cases, or upon other individuals."—Mr. M. was a very intelligent man, able, and an acute and profound reasoner upon other subjects.—You will naturally inquire, was he entirely free from disease of all kinds, that he was so confident flesh did not hurt him? By no means. At that very time he was suffering, and unable to perform his ministerial duties, from bronchitis and pulmonary affection; and this had been his condition for years. Poor blind man! He could not see that his diseased lungs operated like a seaton or an abscess, as a safety-valve, to draw off the diseased action which was constantly manufactured in the system by the digestion and assimilation of improper and pernicious food, and thus protected the stomach. That by virtue of the protection afforded by the diseased action of the lungs, the stomach was enabled to perform its function without difficulty, and he was enabled to say that "flesh agreed with his stomach." Strange, he never once suspected that

improper food could injure any other organ besides the stomach! Suppose he had said, flesh-eating does not injure my *foot*; it is healthy and able to perform its function;—therefore I know it is not injurious, but harmless and beneficial: what would you say to such reasoning? But it no more follows that because a certain kind of food does not injure the stomach, or cause a fit of the dyspepsia, *therefore* it does not injure any other part of the system, or cause any other disease,—than all this would follow because it did not injure the foot or hand. True, all parts of the body must sympathize and suffer to some extent with any diseased organ; but not necessarily, or at least immediately, enough to destroy them, or materially impair their functions.

The delusion to which the above named individual was such a miserable victim, is one of the most common and mischievous in civilized life. It furnishes an excuse for the use of the most pernicious substances. But its fallacy is as transparent as air. The *feelings*, as we have before remarked, are worse than a blind guide; they are a *false* one, in the present debauched condition of the human system. The opium-eater *feels* that every dose of the drug does not injure him, but on the contrary does him good; while at the same time it is poisoning him to death. So the flesh-eater *feels* that flesh does not injure him, but does him good, and “agrees with his stomach,” while it is filling his body with corruption, loathsomeness, disease, and death. The common proverb that every one knows what agrees with him best, and therefore is the best judge what kind of food he should eat, is false and pernicious. The question as to the food proper for human beings, ought to be determined, and must be determined, if it is at all, by an appeal to natural law, aided by an extensive and enlightened observation; from conclusions thus drawn, individual cases will form no exceptions.

Another popular delusion, and one which very much retards the progress of true knowledge upon this subject, is attributing all diseases to immediate and slight and inadequate causes. A person is sick; he does not look for the cause where he ought to, that is, in his daily voluntary habits, but refers it to some slight and immediate cause, such as a slight exposure to the air, a little extra labor, a large or unseasonable meal, a change in the weather, a peculiarity in the climate, or something else of the kind, which he

supposes produced all the difficulty. For instance; a lady I knew had a family of feeble, half-invalid daughters—young women—who were brought up on flesh, grease, fine flour, tea and coffee, etc., and subjected to all the pernicious luxuries and refinements of civilized life; among the rest, they were carefully excluded from the fresh air, and never bathed the surface of the skin with water. One of them was taken worse, and died. Her mother, fond but foolish woman, never thought of attributing her sickness and death to the real cause—her daily habits all her life—her flesh and grease eating, tea-drinking, neglect of breathing pure air, and of washing the skin, etc., but true to human short-sightedness and folly, she referred all the evil to an immediate and totally insufficient and absurd cause. She seriously insisted that her daughter's sickness and death were caused by looking out of a window on a foggy morning, in which part of a pane of glass was missing! All her previous gormandizing, and filthiness, and indolence, (I must use plain terms if they are harsh,) went for nothing in her mother's estimation; but she continued to lament her looking out of the window, as the efficient cause which deprived her of a beloved daughter! O, human ignorance and folly!

Although many will laugh at this foolish woman, yet almost every one is constantly referring diseases, sickness, and death to as slight, inefficient, and in reality as ridiculous causes as looking out of a window on a foggy morning. The clergyman before mentioned supposed that his pulmonary affection was caused and continued by preaching two sermons a week, of half-an-hour's length each, although he spoke very moderately, and his chest was large and well formed, and his body muscular and athletic. Such a childish notion is unworthy of a school-boy; and yet this wise man fully believed it. What a striking instance of the profound and almost universal ignorance which prevails in the public mind on this important subject! I have smaller lungs and a less robust and muscular body than Mr. M., and I will engage to speak two discourses of an hour's length each day, with much more energy than he speaks with, as long as you please; and all this without injuring my lungs, or any other organ, in the least particular. It is absurd to attribute such effects to such insignificant causes. True, too much use may injure a diseased and debilitated organ;—but what

diseased and debilitated the organ? It was not a little exercise, like using the lungs in the way supposed for an hour a day, for this is necessary to their health. It is absurd to suppose that healthy organs can be broken down by such causes as this. There must be something more efficient supposed, in order to account for the evil. Neither can slight exposure to the air produce sickness and death; for this is also necessary to health. The exposure of a healthy body to dampness, changes of the atmosphere, and climatic influences, can produce no evil, for the system has resisting powers to protect it from all ordinary influences of this kind. You say it was weak and diseased, and therefore could not resist. But how came it weak and diseased? In God's name what keeps it weak and diseased?—Depend upon it, if you will but regulate your voluntary habits, such as eating, sleeping, breathing, bathing, exercising etc., in accordance with Nature's laws, the system will soon possess sufficient vigor and powers of resistance to guard you against the common injurious influences to which are attributed nearly all the "ills that flesh is heir to!" You can then look out of a broken window on a foggy morning, or preach an hour a week, or even do much more desperate deeds, with the most perfect impunity!

How often do you hear people make remarks like the following: "I wonder how I could have taken such a dreadful cold? I cannot possibly think; I have not been out, nor exposed myself at all, that I know of. How could I possibly have taken it?" And yet this same person has not washed his skin for a month—perhaps never did—leaving the excrementitious matter to accumulate and obstruct the pores, until at last it suspends the function of the skin, (which is what is meant by the vulgar phrase, "taking cold,") and thus produces inflammation of the lungs, cough, discharge at the nose, and all the usual symptoms of a cold. To make the matter worse tenfold, he has *always* been in the daily habit of stimulating his system with large quantities of flesh, hot tea, etc., thus causing depressions and reactions, and introducing general debility and disease. To these efficient causes of all manner of diseases he has been subject all his life; and yet if he cannot recollect that he exposed himself to the fresh air of heaven on a certain day, he will wonder how he could have taken cold! If he can recollect, by dint of

hammering his bump of eventuality, that within two or three days he has stepped to the door without his face tied up, or set down by an open window long enough to pare an apple, or if he can hit upon nothing more to the purpose, *drank out of a wet glass*, he is abundantly satisfied as to the cause of his disease, and sets about cursing his carelessness, and the weather.

A young lady of my acquaintance was sick;—the question arose as to the cause. Her mother affirmed that she had the day before walked to the neighboring village, one mile from their house; and that this was undoubtedly the cause of her sickness, for it always made her sick when she did so; and she wondered that she did not learn better, but continued occasionally to perform the desperate feat! When I remonstrated that the cause assigned was totally inadequate to produce such an effect, but that the true cause must be looked for somewhere else—perhaps in some of her daily habits, she flew into a pet, affirmed that she knew her daughter's constitution, and what she could bear, better than I did; and ended by cursing the "Graham system" and its advocates. In spite of all I could say, the whole family continued religiously to believe that the walk of a mile, and back after resting several hours, was the sole cause of their daughter's sickness; and yet this same young lady daily consumed enormous quantities of hot tea and coffee, made strong, much salt, and flesh and especially *grease* enough to feed an Esquimo! She was not too delicate for this gross and horrible feeding, but could not walk a mile and live!—Now, can any one of common sense suppose that the walk was the sole or principal cause of this young lady's sickness? If she was not able to walk a mile, what do you say to her being able to digest three meals a day, besides piece-meals, either one of which would astonish a Siberian! It was not want of exercise which made her so feeble, for she was a farmer's daughter, and worked every day. Her dietetic transgressions were more than sufficient to account for all her ills; why take so much pains to hunt up frivolous and utterly insignificant causes to which to ascribe her sickness, and leave the principal and efficient ones out of the account?

Many cannot ascribe an effect to any cause, unless it immediately precedes said effect. They do not scruple to believe that the walk of a mile is the sole cause of the most violent and fatal diseases,

if it only occurred the day before the disease manifested itself ; but are utterly skeptical as to flesh and grease eating having anything to do with causing diseases which do not appear immediately. The truth is this ; flesh-meat, and other improper kinds of food and drink, being unadapted to the nature of the alimentary organs and the whole human constitution, and therefore unfit to supply the alimentary wants of the system, disturb and disorder the action of the organs, debilitate and disease the body, and introduce an abnormal action or condition into the vital economy, which is extremely liable to take on the most violent diseased action. The body thus becomes, filled as it is with corruption, and built up of materials just ready to putrefy,—it becomes as it were a *magazine of disease*, ready to explode upon the application of the slightest spark, in the shape of external injurious influences. In this condition, if the person be subjected to the slightest unusual exposure, or extra labor, or any other injurious influence, which would not have produced the least effect upon a healthy body, the magazine will explode, and the person have a violent attack of disease. Now what is the real and efficient cause of his sickness ? It is manifestly the habits which thus corrupted the body, and made it so liable to take on violent diseased action. Correct these habits, and you strike the root of the evil, cut off its source of supply even at its fountain head, and cause the stream of life to run clear and healthful. If you purify the fountain of life, the stream cannot be utterly corrupted by little rivulets which may chance to run into it on the way. Let the daily habits, and particularly the dietetic habits, be in accordance with the laws of health, and you may laugh at those petty and insignificant causes to which diseases and premature deaths are commonly ascribed.

It would be amusing, if it were not painfully melancholy, to see wise men, with grave and sage countenances, hunting with microscopic vision, if peradventure they may chance to dig up some trifling and utterly insignificant influence operating upon a person, which they at once invest with great importance, and assume to be the efficient cause of all his ailments ; while they have not once thought of making even the *inquiry*, much less answering it, at least in any rational way, whether his dietetic and other daily habits are right or wrong. Those who live correctly do not *take*

cold, for instance ; and yet those who eat flesh and grease and drink tea, wonder how or why they take cold, and cannot think, unless they chance to remember stepping to the door without their coat on, or some other such important influence of the like nature ! Look well to your dietetic and other daily voluntary habits—see that they are in accordance with the organic laws—and you need not fear taking cold from any ordinary or reasonable exposure. But continue to gobble down dead flesh and grease, and drink hot tea, and you may depend upon frequent and severe colds, protect yourself from exposure as carefully as you please ; and happy for you will it be if you do not soon have something worse than a *cold*. Reform, or die a premature and miserable death !

Concerning the physiological effect of flesh upon the system, we remark, that carnivorous animals are dull and sleepy during the day, and wakeful in the night. It is just so with flesh-eating humans ; they, as a general thing, are dull and sleepy in the morning, when they ought to be the most wakeful, and wakeful during the fore part of the night, when they ought to be asleep. But vegetable eaters, like vegetable eating animals, sleep earlier in the night, and wake earlier in the morning. Everybody admits that this is the most proper, and that to be enabled to do it, denotes the most normal and healthy condition of the system. Hence the inference that vegetable food is best adapted to our natures. Night is the most favorable time for carnivorous animals to prey upon their victims ; hence it is so arranged, that their natural food—flesh—shall produce the effect to make them wakeful in the night and sleepy in the day. But human employments can be pursued but by day ; hence it was arranged, that man's natural food—seeds and fruits—should make him sleep in the night and wakeful in the day. If he eats flesh, the natural food of the night-walking animals, he reverses this order, to some extent, and is powerfully inclined to day-sleeping and night-waking. True, by the effort of his will he may resist this tendency so far as not to give way to it, and so, perhaps, might the tiger, if he possessed the human intellect and will ; but still the tendency is strongly in favor of day-sleeping and night-waking. When I was a flesh-eater, so sleepy and dull was I in the morning, that it required a severe effort and a powerful exertion of the will to arouse myself and get up early ; but now al

drowsiness vanishes at five o'clock, and I have not the least inclination to lie longer than that time.

Flesh-eating animals are enabled to manifest considerable muscular power for a short time, but cannot sustain any long-continued effort of this kind. The lion or the tiger may perform amazing feats of strength, in the fatal spring after its prey, or in carrying the dead body of its victim to its lair, or in some other such brief effort, but it cannot long sustain muscular effort. It is the vegetable-eating camel, or rein-deer, or ox, or horse, which is enabled to maintain the severest muscular exertions, during ten or more hours of the day, for years together, and sustain amazing efforts of strength for an incredibly long period, without becoming exhausted. And this with herbs for food; but feed the horse for instance with *seeds*, although not perfectly adapted to his nature, and his powers of endurance will be immensely increased, until they become perfectly astonishing. So with flesh-eating men; while they remain in tolerable health, they are enabled to manifest considerable muscular power, and put forth efforts of strength, for a short time; but cannot long sustain severe muscular exertion without becoming greatly exhausted and distressingly fatigued. But, as we shall see when we come to the experimental argument, it is the vegetable-eaters—those who subsist upon a small quantity of *seeds and fruits*, in nearly their natural condition, who are enabled to maintain the severest muscular exertion, and to put forth efforts of the most amazing power, for astonishingly long periods of time; and this without becoming exhausted, and almost without fatigue. Great powers of endurance are not for the flesh and grease eater, but for him who lives on seeds and fruits.

When I was an eater of flesh, at the close of a day's work, or after any severe muscular effort, I used to be much exhausted, and feel distressing and almost intolerable fatigue; but now, after the same effort, I feel scarcely fatigued at all. Although my employment is sedentary, and I am not accustomed to severe muscular efforts of any kind, yet I occasionally walk twenty miles in the course of five or six hours, and when I arrive at my journey's end, I do not suffer at all from fatigue, being hardly able to tell from my feelings that I have walked a single mile; and the next morning there is not a muscle sore or stiff in my body. Formerly, if I had

performed such a feat, even when I was accustomed to more muscular labor than I am now, I should have been almost dead with exhaustion and painful fatigue, hardly able to drag one foot after the other ; and the next morning all the muscles would have been as sore as if they had been pounded with an iron hammer. This is true, more or less, with regard to all flesh-eaters ; they suffer intolerably from distressing fatigue after muscular effort,—to which suffering the vegetable-eater is almost a total stranger. The reason of this difference is this : When the muscles are nourished and built up from the imperfect chyle produced by flesh-meat, they are necessarily of defective organization and structure, and in an imperfect and bad physiological condition. The expenditure of a large amount of vitality is necessary to produce a given amount of muscular action, and the organs would hence be much more exhausted, and the body much more fatigued and jaded, than if the muscles had been perfect in structure and condition. There must always be a much greater expenditure of vital power, and waste of organized substance, in order to produce a given amount of function with an imperfect organ, than there would be with a perfect one ; hence, much more distressing fatigue ; just as a man would be much more exhausted and fatigued in sawing a cord of wood with a poor dull saw, than he would if the saw was good and sharp. But, on the other hand, when the muscles are nourished and built up from the more perfect and highly vitalized chyle of seeds and fruits, they are of course more perfect in organization and structure, and in a much better physiological condition—as firm, compact, and hard almost as iron—and hence the expenditure of a much less amount of vitality, and a much smaller waste of organized substance, are necessary to produce the same amount of muscular action ; therefore, much less exhaustion and fatigue will be experienced, and much less time be required for rest. Also the expenditure of a much smaller amount of vital energy in the digestion and assimilation of the proper amount of vegetable food, than is necessary in the alimentation of flesh, would leave a larger amount to be employed in producing muscular action, and therefore leave the vegetable-eater much less exhausted and fatigued, after a given amount of muscular action, than the flesh-eater. Whatever may be the cause, it is certain that the flesh-eater, other things being equal, is

much more exhausted after a given amount of muscular exertion, than the vegetable-eater, and that he suffers intensely from distressing fatigue, to which the other is almost entirely a stranger. If we choose to correct our dietetic and other habits, we may perform the amount of labor which ordinarily falls to the lot of man, almost entirely without fatigue, and altogether without that painful exhaustion and distressing fatigue which causes so much suffering every day to flesh and grease-eating and tea-drinking laborers.

One more remark, and we close for the present the physiological argument. Many people will eat some article of food, say *fruit*, and find it to *disagree* with them, as they say; that is, it does not readily digest, but ferments in the stomach, and perhaps causes a fit of dyspepsia, colic, or some other difficulty. They immediately conclude from this, that whatever it may be for others, it is improper food for *them* at least. They say it is unadapted to their constitution, and that they ought not to use it. But this is all fallacy. The truth is, *fruit* is the most natural and proper food for men, and *all* men, which can be found in nature; these very individuals themselves form no exception. But by flesh-eating, and other dietetic transgression, they have brought their digestive organs into such a physiological condition—abnormal condition, or condition of disease—that while this diseased condition lasts, they will not so well digest the best and most proper food, as they will some worse kinds. Cows have been fed on flesh until they refused their natural food, and brought their digestive organs into such a physiological condition, that when they were induced to eat it, it would not be properly digested, and would hence make them sick, or disagree with their stomachs. But would this prove herbs to be unnatural and improper food for these cows, or be a sound argument against giving them to them, or in favor of keeping them on flesh? So neither does the fact, that fruit in its natural state is not readily digested by people, and therefore “disagrees” with or hurts them, who have, by flesh-eating, etc., brought their digestive organs into an abnormal physiological condition, or diseased state, prove that fruit is not proper food for them, or that it is unadapted to their constitutions. Their alimentary organs are diseased; therefore, their proper aliment is not readily digested; or in common parlance, “disagrees” with them, or “hurts” them. Restore the organs to health,

and a proper physiological condition, and there will be no further difficulty.

The use of flesh and other stimulating food debilitates and prostrates the alimentary organs, and exhausts their vital energy, and injures their structure and physiological condition, and accustoms them to artificial stimulation, and to act only from such stimulation, until they cannot perform their function without the presence of a strong stimulus; this is not furnished by fruit, hence the indigestion. Just as a man debilitated and diseased by alcohol, and long accustomed to its stimulus, and to act from it, cannot perform his customary labor without such stimulation. The proper course for the spirit-drinker in this case would be, not to continue the use of alcohol, but to sanctify himself from it; then he could perform his labor upon water for drink. So if the other would sanctify himself from flesh and other injurious substances and influences, we should hear no more about fruit "disagreeing" with him, or "hurting" him: it would be the best possible food for him.

CHAPTER V.

THE MORAL ARGUMENT.

THE *moral argument* is the strongest which can be arrayed against anything. If a practice is found to injure mentality, and deteriorate and deprave moral emotion, nothing more can possibly be said against anything. We mean to show that flesh-eating is obnoxious to this serious charge; in fine, that it tends to stimulate the passions and render them imperious and ungovernable, at the same time weakening and dwarfing the intellect and moral sentiments, thus causing sin and depravity, and moral wretchedness and wo.

Sin is a rebellion of the passions, or some one of them, against the *moral governor*—the *moral law*. This rebellion is most likely to occur, and does most often occur, when the passions are strong as compared with the moral powers. Hence anything which tends to strengthen the passions and weaken the moral faculties, tends just so much to increase crime. Artificial stimulants have this tendency. Witness the drunkard. His poisonous libations, while they stimulate his body, stimulate his passions almost to madness, while at the same time they dwarf his intellect and deaden his conscience; therefore intemperance necessarily increases sin. This all admit. It is precisely so with flesh-meat and other stimulating articles of food and drink. While they stimulate the body, they increase the activity and energy of the passions, and weaken the intellect and deaden the moral powers; this greatly increases sin and wo. I will not stop to show why stimulants have this effect upon the mental faculties; suffice it to say, that no one at all acquainted with the subject will attempt to deny it: all who are conversant with animal and mental physiology, will readily admit it.

But the use of flesh and other improper articles of food has another effect, worse still; it tends to *deprave* all the mental facul-

ties, and vitiate and debase their functions. The legitimate action of all the faculties of the mind, not excepting the animal passions, is innocent, right, and proper and essential to our well-being and happiness; but the abnormal, diseased, or depraved action of any of them, particularly the passions, is wrong and pernicious. Take for instance the passion of *amativeness*, or sexual love; its proper, legitimate, healthy action, in loving our wives or husbands as we ought, is right and necessary;—but its depraved or diseased action, as manifested in the desire for libertinism, or general licentiousness, is to the last degree sinful, and in its effects perhaps worse than any other perverted passion. It may even be depraved in its action towards a wife or husband, and degenerate into mere carnality, or be manifested in self-gratification or indulgence; either of these manifestations is sinful and pernicious.—Again; the action of *alimentiveness* may be depraved. Its natural, proper function is to desire the right kind of food and drink, proper and necessary to sustain our bodies; while its depraved action consists in desiring improper and injurious articles, which tend to disease and deform the body,—such as alcohol, opium, tobacco, grease, flesh, vinegar, salt, and the thousand and one other pernicious substances with which the ingenuity of man has enabled him to supply a perverted appetite. The first manifestation of the faculty is a healthy, natural appetite, and is right and necessary; the second, a diseased, unnatural appetite, and is wrong and pernicious. In the same way may the function of *combativeness* and *destructiveness* be depraved and their results vitiated; and indeed all the faculties of the mind, not excepting the intellectual and moral. A perverse or perverted *intellect* is a common phenomenon, and all can understand it without comment. Perverted or depraved or diseased *benevolence* might cause us to love intensely the lower animals, while it suffered us to hate our fellow men; or it might array its claims against *justice*, and make us desire that the sinner should escape from deserved punishment. Perverted *veneration* would make us bow down to “sticks and stones,” or even more disgusting objects, and neglect the worship of the “true God.” But I need not particularize further. Suffice it to say, that every faculty of the mind, like every organ of the body, has its legitimate, healthy, normal action or function; and may have an improper, abnormal, diseased, vitiated, de-

praved, and pernicious action. When it manifests the first kind of action or function, it is in its proper, healthy, normal condition, fulfilling its legitimate design and end in imparting to us happiness; when it manifests the last, it is in a perverted, vitiated, and depraved condition, stinging us with its torments, *destroying* our peace and happiness.

The condition of a mental faculty, whether normal or depraved, like the action or function of a physical organ of the body, whether healthy or diseased, depends upon the constitution and physical or physiological condition of the brain, its physical organ,—or that portion of it which manifests the particular faculty. If the brain be in a bad physiological condition, the mental faculties will also be in a depraved condition; if that be in a healthy, proper condition, they will be. This is a necessary conclusion from the intimate connection and relation which subsist between mind and matter—soul and body. The manifestation of the mental faculties is the legitimate function of the brain, just as contraction is the function of muscular fibre, digestion the function of the stomach, and respiration, of the lungs. Now, since mentality and moral emotion and passional feeling, are manifested by means of physical organs—the organs of the brain, or phrenological organs—it is manifest that they cannot be *properly* manifested without these organs are in a healthy and normal constitutional and physiological condition. If they be diseased, or in an abnormal condition, mentality and moral emotion and passional feeling will be vitiated, diseased, and depraved; just as when the muscles, the stomach, and the lungs are diseased, and in a bad physiological or constitutional condition, their functions will be vitiated and depraved; or when the organs of the special senses, as the tongue or the organs of smell, are in a diseased condition, their functions will be diseased, and the person have a depraved appetite, or taste, or smell. But the brain is a physical organ, as much as the hand or the foot, and is subject to the same organic laws; its health depends upon the same conditions as the health of other parts of the body;—viz, proper food, perfect and highly vitalized chyle, pure blood, etc. Moreover, it is a member of the vital economy, and is affected by the general condition and health of the body, or any part of it; according to the law, “if one member suffer, all suffer with it; and if one member be honored,

all rejoice with it." Therefore, whatever tends to disease and deform and deprave the body, tends also to deform and pervert and vitiate and deprave the mind. What will corrupt the physical organism, will in some degree corrupt the mind, and deprave the moral character. Hence the command, "Add to knowledge *temperance*;" and "Be ye temperate in *all things*." I conceive that these commands, properly understood, forbid all *physical transgression*. Our subject then pertains to the *gospel*—is a *part* of the *gospel*; therefore let no one despise it.

But the use of flesh-meat, as we have seen, being unnatural and improper, improperly stimulates and hastens the vital action of the alimentary organs, especially; deranges, disorders, prostrates and diseases them, and thus vitiates their action and depraves their functions; and thus produces a crude, imperfectly vitalized, easily putrefying chyle, and therefore an imperfect, impure blood, which goes to nourish and build up every part of the body. The organs of the body thus nourished and built up, among which is the brain, the organ of the mind, must necessarily be in an imperfect and improper constitutional and physiological condition, and of course subjected to diseased action; their functions must therefore be vitiated and depraved. To make the matter worse, the brain as well as the other organs will be directly stimulated, by means of the system of nerves which connect together all parts of the body; and thus its action be still further disturbed and disordered, and its condition and function more and more impaired and depraved. Nor is this all. The assimilating organs of the brain, which nourish and build up its substance, besides being supplied with a very crude, imperfect, and bad material in the shape of imperfectly elaborated and vitalized and constituted chyle and blood formed from flesh-meat, are stimulated and hurried in their action by the exciting nature of the blood by which they are supplied, and the direct nervous stimulation to which they are subjected, and thus their function is impaired and vitiated, and consequently the substance of the brain, which they nourish and build up, is still further deteriorated, and its function commensurately impaired, and therefore mentality, moral emotion, and passional feeling are correspondingly depraved.

It is generally known and admitted that the condition of the nervous system has an immense influence upon the condition and

manifestation of mind. If the former is diseased, the latter will be. But flesh-meat, by its stimulating and exciting qualities, tends inevitably to derange and disease the nerves, and hence, to corrupt, pervert, disease, and deprave the mind and all its faculties ; insanity, crime, and misery are the sad consequences !

The Christian who is striving against sin, will find thorough physiological reform one of the most efficacious spiritual weapons (in its effects,) which he can employ. I speak from personal experience, when I say, that if one is endeavoring to overcome any besetting sin in his own character, which he finds difficult—almost impossible—to overcome and subdue, his labor will be rendered easy, and success almost certain and very speedy, by simply adopting a thorough physiological reform. You may be incredulous, and probably are, but I tell you as the Lord liveth, it is *true*—at least so far as my own experience extends—and that agrees perfectly with the testimony of others who have tried it, as well as with the strictest philosophical deduction.

When I look abroad upon the world and see the terrible results of crime—the frightful amount of sin—caused by the strength, imperiousness, and despotic sway of passion, I cannot help referring it, in a large measure, to the physical transgression of the people as its cause ; principally to the extensive use of stimulating, pernicious, and poisonous articles of food and drink :—yea, the enormous consumption of these things, even by those who “lay the flattering unction to their souls,” that they are “temperate in all things.” I cannot help connecting it with the extensive use of alcoholic liquors, tobacco, tea, and coffee, and the almost universal giving up of the people to gross and promiscuous feeding upon the dead carcasses of animals ; the universal use of fat, butter, salt, heating condiments, vinegar, sleeping on feather beds, etc., etc. My own experience proves all this to me, as far as I am concerned, and the uniform testimony of all who have made the experiment confirms it. If any sincere person who is striving to subdue his own passions and overcome his sins, and to refine and purify and exalt his moral and religious character, will enter upon a thorough reform such as I have indicated—abandon the above-mentioned bad habits, and all others which are violations of organic law ; in short, if he will conform his life in all respects to the demands of nature,

and persevere in it until the legitimate results are developed ; if he does not then admit physiological reform to be one of the best and strongest helps to moral reformation in the world, I will yield the point.

It may be objected, that, according to this doctrine, all would be made criminals ; since flesh and grease-eating, tea-drinking, etc., are almost universal. But there are many counteracting influences, which constantly tend to mitigate and lessen these evil effects of physical transgressions ; such as the authority of the Bible, moral and religious teaching, public opinion, the administration of the laws, etc. After all, there is sin enough in every one's life, and criminals enough in the world. Not to assert with some religionists that all men are *totally* depraved, or, indeed, that any man is, still that there is a fearful amount of moral depravity in the world, all must admit. Not to affirm that there is no *other* cause for this, that a large proportion of it is produced by physiological transgression, is what I most firmly believe. But the perverting and depraving effect of flesh-meat, etc., upon the brain and mind, does not necessarily result in *moral* depravity and crime. There are many other forms of mental depravity and disease. It may produce melancholy, monomania, and madness. As physical transgression may produce disease in one organ of the body or another—either in the stomach or heart, or lungs, or some other organ, as the case may be—so it may disease one or another mental organ ; the organ of any one of the passions, or of the intellectual faculties, the moral sentiments, or any others. Abnormal physiological condition and diseased action may be produced in any particular portion of the brain, or in all its parts. Disease, or irritation, or unnatural stimulation, or any other abnormal condition of the nerves, might stimulate, or irritate, or disease one portion of the brain more than another ; or one portion in one person and another portion in another ; just as one person is diseased in the stomach, and another in the lungs or liver. In this way intoxication will affect one person in one way, and another in another and different manner. One will be made lecherous, another combative or cruel, another insane ; one foolishly merry, and another sad and melancholy. So with flesh-meat, and other injurious kinds of food and drink. They may produce abnormal physiological condition and diseased action in one part of the

brain, and moral depravity of some kind will be manifested; in another, and monomania or madness will show itself; in another, melancholy, etc. The kind or form of the mental malady or depravity will also depend much upon the nature of the diseased condition, or affection, or action in the diseased or affected part of the brain; just as different conditions of disease in the lungs, or any other physical organ, would manifest different symptoms; such as the symptoms of asthma, consumption, etc. In this way are produced the different kinds and degrees of moral depravity, all the various forms of insanity, and all those diseased and painful sensibilities and emotions, which, at times, so sorely torment and harrass the great majority of the people, and make them utterly wretched and miserable; such as habitual melancholy and gloom without any adequate external cause, and which they cannot shake off even in the midst of revelry and mirth; restlessness and discontentment, repining, irritability and pettishness, and want of good nature or humor, jealousy, inordinate and unreasonable grief, general unhappiness for no cause, horrors, blues, and the ten thousand causeless mental and moral ills which, worse than any physical pains, render this life, which ought to be and might be almost an Eden, a vale of tears indeed! In the production of this list of curses, flesh-eating holds a prominent place, and is constantly active in the way and manner which we have mentioned, by diseasing the nerves and brain.

True, these sufferings are always referred by the sufferer to some external cause, which he imagines produced them, however insignificant it may be; just as diseases and sickness are always referred to some frivolous external cause. But we ought to expect this. Mental diseases do not necessarily indicate their cause to the person's consciousness, any more than physical ones do. Any one of the mental conditions, mentioned above, is a mental disease, and caused by a real *sickness of the brain*; just as asthma is a disease, and caused by a sickness of the lungs. The brain is sick, but it does not inform the mind how it come so, any more than the lungs do when they are sick. Suppose that a certain external cause or influence, such as loss of property, poverty, loss of friends or their unfaithfulness, absence from home, or any other cause, should produce, as they do, a certain particular kind of painful mental emotions upon a healthy mind. The kind and amount of painful

emotions thus produced would constitute the legitimate, proper effect of said cause upon that mind ; the person would know by experience the kind of emotion or feeling which properly followed from a certain cause, or external influence ; say loss of property, or poverty. Now suppose that disease or affection of the brain, induced by dietetic or other physiological transgression, should produce the same kind of painful emotions, or a kind very similar to those properly produced by loss of property, or poverty, as is often the case ; how could the person distinguish in his own consciousness between them ? Feeling similar emotions to those which he knew from experience properly followed said external influence, he would, of course, attribute them to that cause, and begin to cast about for some instance of loss of property, or condition of his fortune which he might consider poverty, and to which he could attribute his suffering. He would soon find the object of his search. Perhaps he had lost a few dollars in an unfortunate bargain, or lost an opportunity of making them, or one of his crops had failed, or a sheep died ; or he owed a small debt, or there was some embarrassment in his finances, or his business was not as profitable as it might be, or if it was, he thought that possibly it might not always be ; or in a desperate case, when he could find nothing else, he might discover, or at least imagine, that he was not as wealthy or prosperous as his neighbor. To some one of these causes he would immediately ascribe his sufferings, and, of course, magnify its importance according to the amount of painful emotion which he supposed it caused him, which would, in turn, react upon the sick brain and disease it more and more, until he would finally come to consider himself the most afflicted of mortals, tormented by pecuniary loss, and steeped to the lips in poverty, and earth become to him a perfect hell ! Suicide might follow.

Any one looking on and seeing him prosperous and wealthy, would wonder how a man of his intelligence and understanding could possibly make himself so wretched for no cause, or be made so miserable by causes which were either entirely imaginary, or utterly insignificant ; not knowing that physical disease or affections of the nerves and brain, caused and kept up by daily transgression of the organic laws, was the real and efficient cause of his sufferings. His sufferings and death were forgotten, and nobody the wiser.

A case in point. Major P., of H., was a very excellent, intelligent, active man, and the wealthiest person in town—perhaps in the county. His business was always snug and prosperous, and his income large and sure. Of all men, he was the last, one would suppose, to feel poverty, or suffer from its apprehension. He was perfectly sane always, and of a strong, clear, cultivated mind. But frequently he had most distressing fits of the horrors, or blues, during which he felt, and finally imagined himself, on the very verge of ruin and poverty; he felt, as he expressed himself, just as though he were in utter poverty and destitution, and should soon have to be carried to the poor-house. The strongest efforts of a strong and active mind were utterly inefficient to banish or even mitigate these feelings. At other times he would laugh at himself, and wonder how he could ever have such feelings or emotions; but when they were upon him, it was a serious matter.

In this case the diseased action of the nerves and brain, which physiological transgression subjected to occasional attacks of *sickness*, if I may so speak, produced the particular kind of painful emotion which he suffered, which he, in his own consciousness, as any other man would, ascribed to external influences, and fancied himself on the verge of poverty and ruin. His painful emotions were very severe, therefore he imagined himself very poor, and *was* very wretched. This perhaps was an extreme case, but hundreds and thousands of the same character, though less strongly marked, exist in all parts of the country. Almost every one has experienced this kind of suffering, more or less. It is always caused by an abnormal condition or diseased action of the nerves and brain, produced by physiological transgression.—In the same way other kinds of painful emotions are produced, and ascribed to other external influences, which are either entirely imaginary, as in the case above stated, or else utterly insignificant. Thus, under the influence of disease produced by physical transgression, a person may be goaded on to acts of desperation by groundless jealousy, or the apprehended treachery of faithful friends, or home-sickness,—or be made utterly wretched, together with those around him, by discontentment, peevishness, ill-humor, fault-finding, restlessness, general unhappiness, repining, etc.,—even if nothing worse manifest itself in the shape of moral depravity or mental insanity.

But there is another way in which suffering is produced by the diseased condition of the nerves and brain, induced by flesh-eating and other physical transgression. In the cases above mentioned, the mental suffering caused by the diseased condition of the nerves and brain, answers to the *pain* of a diseased bodily organ. But a bodily organ, say the hand, may be diseased and not suffer pain, but only be *sore*. In this case, if it be brought in contact with any hard substance, or used in any employment, it will be hurt, and suffer pain. So the brain is made sore, if I may so speak; and when the mind comes in contact with any external cause of affliction, or trying influence, however minute, or is even used in its legitimate employment, it is *hurt*, so to speak, and suffers pain. People are thus made wretched and utterly miserable by small afflictions; suffer more from them than they ought to from very large ones; or the proper occupation of the mind hurts and pains them almost intolerably.

Suppose the hand be brought violently in contact with a hard substance;—it would suffer pain, of course, in proportion to the violence of the blow. But if it was sore, it would suffer much more pain; and in this way a light blow might cause much more suffering to a diseased hand, than a heavy blow would to a well one. So if the mind be brought in contact with any external cause of affliction, or painful influence, such as the loss of a friend, for instance, it suffers pain commensurate in amount to the magnitude and importance of the external cause; but if the brain be diseased, and the mind therefore preternaturally sensitive or *sore*, it will suffer much more pain; and thus a slight cause of affliction might cause more painful emotion to a mind in this condition, than would the heaviest loss to a healthy mind.—This will enable us to account for the violent effects produced upon some minds by comparatively slight causes. Many are made insane by totally inadequate or even insignificant influences; while others bear without injury the most powerful ones. And even the same mind is affected very differently at different times by the same influence. What would make you crazy at one time, when your brain is sick, and your mind consequently debilitated and diseased, at another time, when it was well, would scarcely affect you at all; just as your body might bear without injury, when it was well and vigor-

ous, what would destroy it when it was debilitated and sick.—Bear in mind, that as one bodily organ may be the seat of disease while the rest of the body is comparatively healthy, so the brain, or some part of it, may be abnormally affected, or subjected to diseased action, while the person may be otherwise in comparatively good health.

The sum of the argument is therefore this:—The brain is the organ of the mind. The condition or manifestation of the mind, whether normal or abnormal, depends upon the physiological condition of the brain, whether healthy or otherwise. The brain is a physical organ, and subjected to the general laws which govern the rest of the body. What tends to disorder, disease, and deprave the physical condition of the body in general, does so to the brain, and therefore to the mind. Flesh-eating, and other dietetic and physiological transgressions, tend to disorder, disease, corrupt, and deprave the body, and therefore the mind. Hence the immense amount of mental and moral disorder and disease;—the numerous cases of insanity, hypochondria, melancholy, horrors, blues, discontentment, peevishness, jealousy without cause, groundless distrust of friends, repining, apprehensions of poverty or other future evils, distaste for any intellectual occupation, ennui, restlessness, dissatisfaction with our lot and with the world, misanthropy, general unhappiness, and disgust with life. Hence also the immense amount of iniquity and crime, and sin of all kinds, notwithstanding the counteracting influence of Christianity, with all its elevating instrumentalities. And hence the large and entirely disproportioned amount of grief and suffering, caused by slight and insignificant causes or influences, which make so many wish to die. The morbid emotions of gloom, discontentment, dissatisfaction with life, positive suffering and utter misery, which are described so powerfully and so eloquently in almost every line of Lord Byron's poetry,—which constitutes indeed the staple of all his works, except where licentiousness takes its places,—and which find so ready a response in the minds of so many foolish sentimentalists in this country,—these diseased emotions are mainly to be ascribed to his habits of intemperance, flesh-eating, gluttony, and general sensuality, which, by diseasing the body and brain, depraved the mind. To the same cause, principally, is to be ascribed that

indelicacy and vulgarity of taste, coarseness of feeling, sensuality of thought and desire, obscenity, etc., which show themselves so unblushingly in the conversation and intercourse of almost all, when in company only with members of their own sex, or those whose presence does not impose restraint.

Flesh-eating, therefore, as well as all other forms of physical transgression, is obnoxious to the serious charge of corrupting, debasing, diseasing, and depraving the human mind,—that God-like emanation, the highest of created objects! This is the strongest objection which can possibly be brought against any practice, or thing. Therefore let *anathema* be pronounced against it without delay, by all lovers of virtue, peace, and happiness!

“We know it to be the fact throughout the brute creation, that without a single exception, the murdering, flesh-eating animals are fierce, blood-thirsty, and cruel; that the exclusively fruit or vegetable-eating animals are mild, gentle, and amiable; and between the two extremes, just in proportion as the diet is more or less composed of animal food, in that same proportion is the animal more or less ferocious. Is it not, therefore, to be expected that a flesh diet should have the same tendency upon the animal man?” —We have before referred to the perfect adaptation of part to part and means to end, in every department of the great machine of Nature. The lion and other carnivorous animals require a ferocious, blood-thirsty disposition, to place them in harmony with their condition, or adapt them to the necessity of murdering for food, under which they exist;—hence it was so arranged that flesh used for food should produce this disposition. But vegetable-eating animals not requiring this ferocity and blood-thirstiness, it was so ordered that vegetable food should not produce it. Even carnivorous animals, brought up on vegetable food, are much less ferocious than those brought up on flesh; and there is no doubt that if kept in this way for a few generations, they would lose most of that savage bloodthirstiness of disposition which so pre-eminently characterizes the carnivorous races.

So if man's diet be vegetable, he will be much more mild and less ferocious than if it be flesh. It must be so, according to the nature of things; flesh will work its legitimate effect, in a greater or less degree, upon his mind. Hence the savage blood-thirstiness

and ferocity of temper which have always disgraced and cursed the human race.—“The historian Gibbon, in describing the manners and habits of Attila, the king of the Huns, says: Flesh was his only food, and the conqueror of the North never tasted the luxury of bread! Attila was both literally and figuratively a blood-thirsty man; a stranger to mercy, delighting in carnage, feasting in savage joy both ears and eyes upon sights and sounds of war. Respecting him the question may be pertinently asked, had his dietetic habits any influence upon his disposition? Does the history of the world produce an instance of a vegetable-liver being such a blood-thirsty man? Were the Alexanders, the Cairos, the Napoleons, the Alarics, the Genseric, the Attilas, the Tamerlanes—were these, or such as they, vegetable livers? Note the fact that Attila, the devastator of the Roman Empire, the most tiger-like—if indeed there were any degrees of blood-thirstiness among the different barbarians who successively ravaged the Empire—the most fiend-like of all her destroyers,—he who was emphatically styled *the scourge of God*, lived exclusively upon a *flesh diet*.”

But there is another phase of the Moral Argument, which makes as strongly against flesh-eating as the foregoing. It arises from the necessity of constantly dipping our hands in gore, and mangling murdered corpses, for the purpose of procuring flesh. This is to the last degree horrible to an undepraved and refined mind! It is bad enough, in all conscience, for a refined, enlightened, and Christian man daily to apply the murderous knife to the throat of innocent victims, wash his hands in their streaming gore, and even rear and fatten them for this very purpose. This is bad enough; but when it comes to cutting up and mangling in the most horrid and brutal manner their dead carcasses, foisting them upon their eating tables, under their very noses, to pollute the whole surrounding atmosphere with the sickening and monstrous stench of dead flesh, and—oh, horror!--making sepulchres of their stomachs, and burying indiscriminately therein the dead and mangled bodies of the slain of almost all species, from the quadruped to the reptile,—herbivorous, omnivorous and carnivorous;—and worst of all, gobbling down this horrible repast with all the infernal gusto afforded by the most

perverted and besotted appetite, and the most depraved, carnal lusting; when we see man, made in the image of God, descend so low, and make himself so beastly and jackal-like, as to unblushingly feed upon heaps of carnage, and even glory in his shame, what shall we say? How find words strong enough to express the disgust and loathing which such a monstrous practice excites in the mind of one not depraved and debauched by the lust for flesh?

But the darkest shade of this black picture has not yet been presented. If this habit only cursed men, and left untouched and unpolluted the fairer, gentler, softer sex, we might perhaps hold our peace. But when we see gentle, lovely woman, almost universally engaged in the worst part of the above accursed practice, and even so hardened as to cut and mangle and roast and swallow pieces of dead carcasses without a shudder or a blush; thus corrupting her body and depraving her mind; when we see all this, it is time for the rocks and the mountains to cry out! No wonder that Lord Byron, sensualist as he was, should have said that it is an unpoetical thing to see a woman eat. Unpoetical! good God! is it not *monstrous* to see a lady, a gentle *woman*, gobble down dead flesh, and make a sepulchre of her stomach, in which to bury the carcasses of the slain! And when you kiss her lovely lips, and feel what should be her balmy breath, and clasp her tender, trembling, gentle form within your arms; to think that those lips have been polluted with the touch of mangled corpses, and that that breath is the breath of a charnel house, and that that form is built up from dead flesh and grease; merciful heaven! is it not enough to make one disgusted with his race, and blush and hang his head to think himself a man? And our wives are flesh and grease-eaters, with carnivorous breaths, and putrid, pestilential cutaneous excretions; and we must continue to press them to our bosoms! Faugh!

I have a young lady in my mind, who by the way is an inveterate flesh-eater, consuming a quantity at every meal which might astonish a Patagonian; who is so exceedingly fastidious and anti-murderous, that in the excess of her mercy and pity, she will almost go into fits if she is forced to see a mouse slain! The death cries of the swine, when it is butchered, never fail to give her the hysterics, or bring copious (I had almost said *crocodile*) tears from her eyes.

In conversation with me, she has eloquently described her feelings ; how she pitied the poor innocent things ; and added, that she would not for all the world take the life even of a *hog* ; and that if there were nobody but her to butcher animals, it would be long before any would die. And yet she could be engaged all day in cutting, mangling, and roasting their dead bodies, and at last bury them in her stomach, without the least scruple in the world ! This hyena-like practice did not shock her delicate susceptibilities, nor disgust her fastidious taste in the least ! After they were dead, she could see no harm in eating their carcasses, she said ! And if she did not eat them, somebody else would ! as though the thief should justify himself for stealing, because if he did not somebody else would. When I explained to her, that all these murders, which she so much deprecated, were for the very purpose of supplying food to flesh-eaters, and that if they were not eaten these animals would not be murdered, or rather not reared for the shambles, and that therefore her darling habit of flesh-eating was the very cause of these murders, which caused her to stand in the same relation to the butchers that the taker of stolen goods does to the thief, she uttered an unfeminine malediction upon the "Graham system," and added that she did not believe what flesh she ate would cause any more animals to be slain than would be otherwise. Thus will sensuality frame to itself excuses, and impose upon its own common sense !

Strange, that refined and fastidious females, who have a perfect horror of the shedding of blood, and would weep only to see a lamb slain ;—who would turn with disgust and loathing from the savage horrors of the slaughter-house, and with nervous shrinking, stop their ears and run from the dying groan of the butchered swine ; strange, that these can without a scruple engage in and continue a practice which necessarily involves all these horrors, and is the procuring cause of them ; strange, that they can without a shudder mangle dead carcasses, and eat dead bodies !

If flesh-eating were in any way necessary, I would not say a word, for I believe that the lower animals are made subject to our necessities and convenience. But when it is in no sense necessary, but pernicious, I conceive that this argument retains its full force and applicability, and is sufficient.

Flesh-eating is a relict of barbarism, and utterly inconsistent with the distinguishing spirit which has begun to animate the hearts of the children of men, in this nineteenth century of grace. It involves too much slaughter and shedding of blood;—too much cruelty and ferocity. It is enough to condemn any practice, that it creates the necessity for a class of men to spend their lives in butchery, even though it be only of the lower animals. The unperverted, uncorrupted feelings of the human heart would instinctively and uniformly revolt with shuddering horror and intolerable loathing from the trade of the butcher, the occupation of the flesh-roaster, or the practice of the flesh-eater. They are all, and almost equally, abominations. The butcher, the flesh-roaster, and the flesh-eater—“O my soul, come not thou into their secret; unto their assembly, mine honor, be not thou united: they kill and mangle and eat swine’s flesh, and the broth of abominable things is found in their vessels!”—This age is still tainted, and mankind corrupted by many relicts of barbarism; many habits and practices which originated when men were yet in the savage state, and raised but little above the beasts which they fed upon. The habit which we are condemning is one of them. But shall we continue it, now that we have emerged from that state, and the light of civilization and refinement has shone upon the world? God forbid! Let savage beasts, and as savage men, feed if they will upon the dead carcasses of their slaughtered victims; but let enlightened, refined and Christian men choose a more proper and congenial, and a less bloody and monstrous diet. God grant that the time may come when human beings shall not be so hot on the scent of blood, but when they will satisfy a natural appetite upon the sweet, delicious, unstimulating, health-giving, and virtue-inspiring fruits and seeds of the earth. When they shall thus, as it were, *starve out* disease, physical corruption, moral depravity, and almost all kinds of suffering.

I have perhaps said enough upon the subject of this chapter, and might well leave the *moral argument*; but I cannot forbear making a few remarks more upon one point—a particular effect of flesh-eating upon children and youth. According to the principles before laid down, this habit must have, and as a matter of fact it undoubtedly does have, more than almost any other practice, the effect of hastening the development, and strengthening the power and im-

periousness, and above all of perverting and depraving the action, and debasing and brutalizing the function of the passion of *amativeness*. It makes thousands and tens of thousands abject and miserable slaves to this worst of the perverted passions, long years before they ought to feel, or upon a proper regimen would feel, sexual love hardly at all. No slavery is so abject, no thralldom so debasing and worse than beastly, as that which binds human beings to perverted amativeness.

I speak not now of its more prominent and visible effects, in the shape of libertinism and general licentiousness ; seduction, adultery, prostitution, etc.,—but of its more secret and if possible more pernicious effects, manifested in solitary vice, to which the youth of our country are so much addicted, and which is extensively practiced long before the age of puberty ; of the physical, intellectual, and moral ruin which it produces on those who practice it ; and of the general corruption of feeling and prostitution of thought which this passion, in its perverted state, produces in the minds of the young. No man can tell the amount of corruption, moral pollution, and depravity of thought, and prostitution of feeling and desire, which this passion produces even during the so called innocent time of childhood and youth. That this can ever be corrected and prevented while children are brought up on flesh, or suffered freely to eat it, or to eat it in any quantity at all, is folly to suppose. Even to materially mitigate it while this accursed habit continues (flesh-eating,) is absolutely futile to attempt : it cannot be done. This habit, and other physical sins, make this passion so despotic, that not half the youth possess strength of mind sufficient to enable them to resist its influence.

If you would cure this moral ulcer, you cannot do it by talking upon the subject, but it must be accomplished, if at all, by promoting thorough physiological reform. Correct the physical habits of the people, and it will vanish almost of itself ; at least its cure will then be easy and speedy. But we will close for the present the moral argument with these lines of Thomson :

“ And yet the wholesome herb neglected dies ;
Though with the pure exhilarating soul
Of nutriment and health and vital powers,
Beyond the search of art, 'tis copious blessed.

For, with hot raving fired, ensanguined man
Is now become the lion of the plain,
And worse. The wolf, who from the nightly fold
Fierce drags the bleating prey, ne'er drank her milk,
Nor wore her warming fleece ; nor has the steer,
At whose stong chest the deadly tiger hangs,
E'er plowed for him. They too are tempered high,
With hunger stung, and wild necessity,
Nor lodges pity in their shaggy breast.
But man, whom Nature formed of milder clay,
With every kind emotion in his heart,
And taught alone to weep ; while from her lap
She pours ten thousand delicacies, herbs,
And fruits, as numerous as the drops of rain,
Or beams that give them birth : shall he, fair form !
Who wears sweet smiles, and looks erect on heaven,
E'er stoop to mingle with the prowling herd,
And dip his tongue in gore ? The beast of prey,
Blood-stained, deserves to bleed ; but you, ye flocks,
What have you done ; ye peaceful people, what,
To merit death ? you, who have given us milk
In luscious streams, and lent us your own coat,
Against the Winter's cold ? and the plain ox,
That harmless, honest, guileless animal,
In what has he offended ? he, whose toil,
Patient, and ever ready, clothes the land
With all the pomp of harvest ; shall he bleed,
And struggling groan beneath the cruel hands
E'en of the clown he feeds ? and that, perhaps,
To swell the riot of th' autumnal feast,
Won by his labor ? Thus the feeling heart
Would tenderly suggest : but 'tis enough,
In this late age, adventurous, to have touched
Light on the numbers of the Samian sage."

CHAPTER VI.

TEA AND COFFEE.

WE will rest for awhile the argument concerning flesh-eating, because the remaining evidence can more conveniently be considered in connection with several other subjects; among the rest, the one indicated at the head of this chapter. In the mean time, we will discuss the propriety of *tea and coffee drinking*, and several other common habits.

Says an excellent writer, "Probably the most general, and unbroken, and I might almost add, the most mischievous delusion of the civilized world at the present day, in relation to intoxicating substances, is that which leads to the nearly universal use of tea and coffee, as common beverages, by male and female—old and young—vigorous and feeble—healthy and sickly—rich and poor; by all habitually as articles of diet, and by most excessively, as means of intoxicating exhilaration." There is a general impression that these drugs, so far from being pernicious, are absolutely salutary in their effects when taken with our daily meals. But nothing can be more erroneous than this opinion. "For there is no truth in science more fully ascertained, or more completely proved," says Mr. Graham, "than that both tea and coffee are among the most powerful poisons of the vegetable kingdom. As early as 1767, Dr. Smith, of Edinburgh, demonstrated by a series of careful experiments, that an infusion of green tea had the same effect as henbane, tobacco, cicuta, etc., on the living tissues of the animal body; in all cases, first diminishing and finally destroying their vital properties. In 1772, Dr. Letsome, of Ireland, made a series of similar experiments with the same results: and still later, Dr. Beddoes, of England, by a series of experiments, several times repeated, completely demonstrated that tea is as powerfully destructive to life as laurel water, opium, or digitalis. Indeed, it is entirely certain that a small

quantity of a strong decoction of tea or coffee will destroy human life, in one unaccustomed to the use of them, as quickly as an equal quantity of laudanum." The same experiments have been repeated in this country, with the same results. Dr. John Burdell, dentist, of New York, has for many years used in his practice a strong decoction of tea for the purpose of destroying the nerve in decayed teeth, preparatory to his dental operations. He found it, in all cases, efficacious. The truth is, of which there is not a doubt, that the drugs we are considering are *powerful narcotic poisons*. There is not a particle of nourishment in them, and their presence in the vital economy is in every way opposed to the physiological, and therefore to the moral welfare of the system. Now, does it appear reasonable that the daily use of such active poisons as these have been demonstrated to be, can be harmless—much less salutary? Must they not be pernicious and deadly in their influence, and rapidly and certainly destructive to health and vigor? You, who will persist in using them, ought not to complain or be surprised at the amount of pain or sickness which you are forced to bear!

Dr. Alcott, in his "Tea and Coffee," has clearly and conclusively shown, by an amount and variety of testimony absolutely overwhelming, that these substances are active poisons. There can be no manner of doubt on the subject. Taken in any quantity, they are anti-vital, that is, poisonous, in their effect upon the vital organism. It is self-evident that the habitual and daily use of such poisons cannot be otherwise than destructive to health and vigor. I do not say but that poisonous substances may be useful in certain cases of disease, and under the prescription of a physician, for *medicine*; but it is certain that if used habitually and daily, they will be the cause of more disease and pain, ten times over, than they have the power of removing even by the most judicious application, prescribed by the most skillful physician. This I say is true of *poisons*; and as we have shown tea and coffee to be poisons, it is therefore true of them. It follows that these pernicious drugs ought only to be used, if they are used at all, as calomel, opium, antimony, and other poisonous medicines are; that is, only used in cases of actual disease, for a limited time, and never but under the prescription of a physician, or some one acquainted with disease.

I mean, they should be confined entirely to the *materia medica*, as much as calomel or opium.

It is sometimes thought that poisons, if taken in small quantities, will not produce any injury; or that larger quantities will not, where we are accustomed to them. But this is false both in philosophy and fact. It is absurd to suppose that a substance which will act as a poison if taken in a given quantity, will cease to have this effect when taken in half the quantity. Indeed it is supposed by those best qualified to judge, that the smaller the quantity taken, the greater the injury produced, *in proportion to the quantity*. "When the dose is large, all the powers of the system, as if aware of its presence, seem to unite their forces to repel it, and it is soon thrown off; whereas, if the quantity be small, it appears to steal its march, unperceived, upon the system, and to wind its way to almost or quite every part of it, poisoning wherever it goes. This is certainly the case with calomel and many other medicines, and why should it not be the case with all poisons?" Why should it not be the case with tea and coffee?

Mithridates, it is said, so accustomed himself to the use of active poisons, by daily use, that his enemies could not poison him to death had they desired to do so. But did these poisons cease to injure this man because he was accustomed to their use? Does opium cease to injure the opium-eater because he is accustomed to it? Do those deadly poisons, white lead, sugar of lead, etc., cease to injure those who are accustomed to them? Why then do those who, in lead factories, work constantly among them, uniformly die in a few years? Can it be, therefore, that tea and coffee do not injure those who drink them, because they are accustomed to their use?

The truth is, that any substance which is anti-vital or poisonous in its nature, taken in any quantity, whether we are accustomed to it or not, always and necessarily produces injury to the vital organism, rapidly wasting the *fund of life*, and gradually but surely introducing diseases which will sooner or later destroy the victim. True, after a while, we may not *feel* immediate injury, owing to the depravity or, perhaps, destruction of those natural instincts which were given to warn us of danger. While these instincts maintain their integrity, if any poisonous substance be introduced into the vital economy, they immediately give the warning, and the vital

energies of the system are immediately aroused to intense effort to protect the living tissues from injury, and to expel the poison. These efforts constitute the violent symptoms which are always experienced when a poison is taken which we are not accustomed to. If the dose be large, these symptoms, or efforts of nature to expel the poison, will be so violent as to destroy life. This is the way in which poison commonly produces death. But if these instincts become depraved, and refuse to perform their function, as they soon will if a small dose be often repeated and gradually increased, as was done by Mithridates, the instinctive warning will not be given, and therefore the violent symptoms will not occur, nor immediate death be produced. These instincts may indeed be so far depraved as to give no warning at all, and therefore we shall *feel* no immediate injury.

But the effect on the living tissues of the body is not suspended because we cease to feel it. When the hand is freezing, the injury does not stop when its sensibility is suspended. The poison will be diffused through the system, and injure, and finally destroy the tissues and organs with which it comes in contact. True, every vital tissue and organ has the power, to some extent, to protect itself against injurious influences, but this protection is always at the expense of a certain amount of *vitality*, or the *fund of life*. Nothing consumes or wastes vitality so rapidly in any organ, or in the whole system, as the constant presence of a poison against which it is forced to protect itself, even though in so moderate quantities as to produce no violent symptoms. The protection is afforded solely by the expenditure of vitality. *Mithridation* must therefore occasion a fearful waste of the fund of life.

So we see that the use of those poisons, tea and coffee, though taken in small quantities by one ever so much accustomed to their use, must necessarily occasion a prodigal waste of the fund of life, and therefore immensely shorten the period of our existence, even though no diseases be produced. But disease will be produced. It is impossible that an active poison should be constantly applied to the living tissues for a length of time, and not cause disease. It does do so; the *tea disease* is indeed terrible!

But there is poison in everything, some will tell us; and our food would do us no good if there were no poison in it. This is

entirely false, and absurd. Nothing which is fit for food or drink contains a particle of poison. Alcohol, a poison, can be *made* from grain by fermentation and distillation ; but not a particle of alcohol exists in grain, in its natural state. Tea and coffee are poisons in their natural state, without any change in their properties, just as they are used ; hence their habitual use produces immense harm.

But they have other effects besides those commonly called *poisonous*, which are no less detrimental to the welfare of the system. I refer to the *stimulation* which they produce upon the nerves of organic life. As we have before seen, certain substances have the power to arouse and goad on these nerves to more intense action than they manifest in their natural state. Tea and coffee are among these, as any one can satisfy himself by watching their effects upon his own person. You will find, after partaking of one or two cups of strong tea—and the same is true of coffee—that it has produced a certain degree of *exhilaration*, very analogous to the feeling caused by the first glass of spirits. This is caused, as all physiologists admit, by means of *nervous stimulation*. If now we take accurate observations, we shall find that the beating of the heart is more rapid, the pulse more frequent, the animal heat higher, the spirits more elevated, and, in fine, the whole system in an excited condition, and the whole vital economy in unnatural and hurried action. It is true, constant use renders one almost insensible to these phenomena, but they are none the less real on that account. And if one has not been used to partaking of these substances, or if he has, but takes more than the usual quantity, he is instantly aware of the effects to which I have alluded.

For proof of the stimulating effects, I will refer to the conviction which all “old tea drinkers” cherish, especially the ladies, that they cannot do without their customary cup. They constantly affirm that they should be sick without it. They should not be able to pursue their labors ; and could hardly “keep about the house ;” —they should “feel like a fool,” etc. Now why is all this, if tea does not stimulate ? These are precisely the arguments which the spirit drinker uses in favor of his daily dram. If they are good to defend tea and coffee, they are equally cogent in favor of *rum*. This stimulation results principally from the efforts of nature to expel an offending cause or injurious substance. When tea or

coffee is introduced into the vital economy, the vital action is greatly increased in a violent effort to expel the poison, or protect the living tissues with which it comes in contact from its deleterious effects. Vitality is rapidly expended, and the whole system partakes by sympathy of the stimulation.

But these stimulating effects, whether produced by tea, coffee, or alcohol, so far from being salutary or even innocent, are very highly pernicious. According to principles explained in a previous chapter, they rapidly waste the fund of life, and therefore hasten dotage and death; besides inducing all manner of debility and disease, subjecting their unfortunate subjects to distressing fatigue, producing moral depravity, aggravating all the ills which flesh is heir to, and finally laying the deluded victim in an early grave! Must not this be an interesting road, and very pleasant, for the votaries of tea, coffee, alcohol, or any other stimulant, to travel!

If tea causes the vital economy to work one-third faster than it otherwise would, (it does this in many cases,) then the fund of life is expended one-third sooner, and of course one-third of our days will be cut off. If we might have lived one hundred years, we shall now live but two-thirds of that time, or sixty-six years, etc. This is said on the supposition that no disease is caused which shall prematurely cut off the victim; which is not a supposable case, for diseases will inevitably be produced. During the reaction, in particular, will diseases invade the system.

What is worst of all, the poor deluded victim, in his eagerness to satisfy the painful, morbid cravings of his diseased and outraged nervous system, clamoring for the application of the customary stimulus, which is slowly sapping the citadel of life, is blind to his fate and condition. Because the narcotic properties of tea and coffee deaden the animal sensibilities, like opium, and thus relieve for the moment the painful sensibilities of the outraged system, rendering us insensible to the debauched and diseased condition of the organs; and because they at the same time stimulate the nerves of organic life, giving a fictitious and delusive feeling of strength; therefore the victim cannot believe the stubborn fact, that these pernicious drugs are the very cause of those distressing feelings which they appear to relieve. Yet such is the fact, and every dose but increases the evil which it appears to relieve. For the same

reason the spirit drinker cannot believe that his drams injure him, because they remove all his bad feelings, and make him feel like a new man after every dose. It is now generally admitted that the rum or whisky is the cause of the painful sensibilities which it appears to relieve by virtue of its narcotic properties—that is, by deadening animal sensibilities—and that every application of the poison but increases the evil. The same is true in the case of the opium-eater, with regard to opium. Since precisely the same phenomena take place in tea drinking, it is a wonder that people have not been led to distrust what they call their “experience,” before now. With just as much propriety might the dram drinker refer to his “experience,” in defence of his habits, as the tea drinker. He might say, I know rum does not hurt me—it does me good, for I feel better after every drink; and I should hardly be able to keep about without my drams:—at least I should not be able to work without them.

But would you believe him? You would say he was deceived. Alcohol had deceived the man. You would know that his drams were the very cause of the painful feelings and weakness which they appeared to relieve. Why have you never had any suspicion that it might be so with regard to tea and coffee? Why depend so implicitly upon “*experience*,” since it deludes the spirit-drinker and opium-eater so dreadfully? We have seen that these poisonous and stimulating drugs are completely opposed to the physiological welfare of the system; and since the feeling of relief which they give is no proof that they are salutary, any more than the same feeling is proof that rum and opium are salutary; and, above all, since those who do not use them have no such bad feelings to be relieved, (especially if their habits are correct in other respects,) it follows that they have not one redeeming trait. They possess not a single virtue to shield them from the decree of banishment which ought to be pronounced against them from every table in the land. There cannot a reasonable word be said why the sentence of death should not be pronounced upon every tea and coffee pot in the world? Let the ban of condemnation go forth;—let the bull of excommunication be fulminated from every domicile!

There are other evils which the use of tea and coffee involves, of which we will not speak at length. Whoever wishes a full discus-

sion of the subject, will find it in Dr. Alcott's work on "Tea and Coffee." There are two more objections against the manner of using it, which we will mention. First, it causes a reception of too large an amount of fluid into the stomach, which retards digestion; and washes down the food before it is properly masticated and insalivated, which also impairs digestion and produces immense evil. The proper way to eat food, indicated by physiology, is this: Take a mouthful of solid food, and thoroughly masticate it with the teeth. Nature has provided that during mastication the salivary glands should be stimulated to action, and pour a copious supply of saliva, (which very nearly resembles, in nature and office, the gastric juice of the stomach, and is a digestive fluid as well as that,) into the mouth, to be thoroughly mixed with the food by the action of the teeth. When it is properly chewed, it is swallowed, and the stomach is immediately stimulated to secrete gastric juice sufficient to mix with and saturate it; when the stomach returns to its passive state. In the meantime another mouthful is masticated, insalivated, and swallowed, which again causes the stomach to secrete gastric juice to mix with it, and so on. In this way, when the meal is finished, every part of it is thoroughly masticated, insalivated, and mixed with gastric juice enough to digest it; so that the stomach can immediately commence and uninterruptedly continue its muscular and vital action, until gastric digestion is completed and the food removed. This is the proper way to eat.

But how are these conditions fulfilled by the tea-drinker? By swallowing large quantities of fluid, he washes down the food before it is half masticated, or mixed with saliva, and what saliva there is secreted is so much diluted as to be nearly useless. In this state it is introduced into the stomach along with the fluid more rapidly than that organ could possibly, under any circumstances, secrete gastric juice to saturate it. But the stomach will not secrete gastric juice while fluid, such as water or tea, is present in it; because if it did, it would be so much diluted as to be useless. Hence it remains passive until the whole meal is swallowed, and the fluid absorbed and removed. This retards digestion very much, but the condition of the food after the removal of the fluid retards it more. Instead of being thoroughly masticated and saturated in every part with saliva and gastric juice enough to digest it, it is hardly masticated at all, and has little or no saliva or gastric juice

mixed with it. It exists in a dry, hard, conglomerated mass in the stomach. What is to be done?—The stomach secretes a portion of digestive fluid, with which it digests and removes the outside coat or part of the conglomerated mass, when its action is suspended until it secretes another portion of this fluid, with which it digests and removes another layer or portion, and so on in this awkward, halting, dilatory manner, till all is removed. But it must suffer severely from being compelled to perform its labor in this unnatural and disadvantageous manner; as a man would to perform his labor in an unnatural and disadvantageous way, which might cause him double the fatigue which was necessary or proper. Besides, no saliva, or very little, being present to assist in digesting the food, much more gastric juice would be required, and therefore the expenditure of much more vital power or energy by the stomach. More vital expenditure would also be necessary, because of the unnatural manner in which the stomach is forced to do its work. Add to this, that the interior of the conglomerated mass, remaining long in the stomach before it could be reached by the gastric juice and digested, would ferment, and if composed of flesh, *putrefy*, and thus be converted into an acrid and abominable and poisonous compound, rendering necessary an immense expenditure of vitality to restore or neutralize it, or to protect the living tissues from its injurious influence; or else, acting as a poison in diseasing and destroying the stomach and other organs of the body. Hence the drinking of fluid with meals, whether it be tea, coffee, or simple water, is always injurious. It delays digestion, wastes the vital power of the stomach, deteriorates its function, prostrates, diseases, and finally destroys it.

Second: The present manner of using tea and coffee involves the evil of taking *hot drinks*. This is known to be an immense evil. It destroys the teeth, the stomach, and injures the whole vital economy. Tea is often taken almost boiling hot; nothing can waste the vitality of the stomach faster.

On the whole, then, we conclude that tea and coffee are public enemies. They are constantly sapping the foundations of health. Their worst effect is on the nervous system, which, by means of the unnatural stimulation and narcotic effects which they produce, they will subject to the most horrible diseases which it is possible

for man to bear. Says Dr. Alcott, "The individual who uses them to excess, suffers from headache; wakefulness; palpitation of the heart; trembling; loss of muscular strength; loss of appetite; indigestion; nervous prostration; great susceptibility to fatigue; chronic affections of the vital organs, accompanied, often, by emaciation, sallowness of the skin, and a peculiar appearance of the surface of the body, that reminds one of the application of an astringent substance." Tea and coffee are public enemies. They are digging down the citadel of life. "Like a worm in the bud, they feed on the damask cheek." Strength and beauty fall before their poisonous breath! Happiness withers before them like a shrunken, shrivelled leaf! And why will you not abandon them? Is it possible that you will let your appetites and passions be your masters, and lead you into the slough of disease and wretchedness? What if your cups are pleasant to your vitiated taste? What if the diseased cravings of the system do demand them with an importunity hard to be denied? Arouse all your moral energies, and cast off the chains which have so long bound you! Come forth free, be no longer a slave! Especially to those who are not yet bound hand and foot in the tyrannous habit, with the heavy chains, I would say, lose not a day! Now is your time to escape! Soon the chains will be about you, perhaps too strong for you to break. Banish tea and coffee from your tables to-day!

These drugs are wholly evil. They have not one redeeming trait. Taken at any time, and in any quantity, they poison, disease, and destroy. They intoxicate and deprave. Do not become a *tea drunkard*, for shame! If you have any sense of propriety left, abandon at once the practice of dissipating upon tea and coffee. But if you will not, then expect to receive the reward of drunkenness. If you will continue to drink, don't complain when you are suffering sick-headache, common headache, nervousness, or any of the thousand diseases and pains caused by this debauchery. It is no more than what you bargain for. If you will sow the wind, you must reap the whirlwind. When the leprosy of disease is upon you, caused by your own folly and sin, do not bore sober people with an account of your disgusting ailments, or poison the atmosphere of health with your loathsome presence.

CHAPTER VII.

TOBACCO, SALT, ETC.

IN the first place, we will speak of *tobacco using* ; one of the worst violations of the organic laws in civilized life, and one which seems to be the most senseless and absurd. We will pass by the *filthiness* of the habit ; say nothing of the dirty practice of being for ever squirting tobacco juice from that cavity which ought to be kept the most scrupulously clean, or of polluting the pure, fresh air of heaven with the smoke and fumes of the most nauseous weed in the whole vegetable kingdom, or of the disgusting habit of constantly thrusting a sickening powder up the nasal cavity ; we will say nothing of the offence against cleanliness and *decency* committed by constantly eating or snuffing the most filthy substance in the world ; but proceed directly to its pernicious and fatal effects upon health, happiness, and life. We shall treat the subject as briefly as possible.

It need hardly be stated that tobacco is a most active and virulent poison, because nobody denies this fact. Everybody knows that if a person was to swallow a moderate quantity of this drug, speedy death would be the consequence, unless it was immediately rejected by the stomach. It is as poisonous as night-shade, fox-glove, or hen-bane. A *poison*, as we have seen, when introduced into the vital economy, in any quantity, is necessarily adverse to life, powerfully destructive to the welfare and health of said economy, and of course to the happiness and long life of the subject. This is an admitted axiom in physiology. That it will produce this effect is what we mean when we call a substance poisonous ; and the deleterious effects must be in some proportion to the quantity taken. The smallness of the dose does not prevent the injurious effects ; otherwise, a poison would cease to be a poison by diminishing the quantity, which is absurd.

Neither can the habitual use—becoming accustomed to it—of

any poison hinder its bad and fatal results to health. It may render them less violent and apparent, but they will be at the same time more insidious and certain. It will be like an enemy which has abandoned the attempt to storm the citadel, and is engaged in undermining its walls. Like the worm, which does not attack the branches of the plant, or attempt to cut down its stalk, but is engaged in eating at its root. The latter mode of attack may appear the less formidable, but it is by far the most certain mode of destruction. Just so with a poison—with tobacco. By constant use, its deadly effects become less apparent than when it caused a deathly paleness to gather on the brow of him whose system had not become debauched by habit, and the feeling of death to come over his frame; but they are no less sure because concealed. The *mining* is constantly going on, and there will soon be a breach effected in the citadel of life, if it does not fall altogether. The worm is gnawing at the root of life, and soon the cheek will begin to fade, and the lustre of health to depart from the eye.

The habitual tobacco chewer does not experience the death-like sensations which are felt by the uninitiated, warning them to beware; but it is impossible that the living body should become so accustomed to poison, that it will cease to be injurious to life and health. The man who is *freezing* becomes so accustomed to, or affected by the cold, as to be insensible to its effects, even while his reason remains; but it is precisely at that time that he is most in danger of death. If we are out in a winter day, and our hands and feet become insensible to the feeling of cold, then is the very time when we ought to be most alarmed for their safety. They may be destroyed, or irreparably injured, (and unless the cause is removed they will inevitably be,) while we are in happy ignorance of their fate. Just so in the use of a substance known to be poisonous, especially of a narcotic poison like tobacco; when we cease to feel its painful effects, or become insensible to its deadly influence, is the very time when we ought to be most alarmed for the result. Then is the very time when the deadly viper is fastening upon our vitals! Then is the very time when the deadly virus is mixing with the current of life! Unless we immediately desist, an irreparable injury will certainly be inflicted upon the constitution, while we are congratulating ourselves upon the immunity and safety which habit

has given us. It is most strange that a reasonable being should depend so implicitly upon his feelings in this matter, when he knows they are so constantly deceiving him. It is like the child chasing the rainbow; or rather the *ignis fatuus*, which dazzles him on to ruin. What was *reason* given for?

In regard to the supposed harmlessness of small doses of poison, it is true, as stated in a former chapter, that the system possesses such a power of resistance as to prevent the legitimate consequences from occurring, when the quantity is small; and this power may, undoubtedly, be increased by habit; as Mithridates accustomed himself to the use of poison, until his enemies were unable to destroy him with it. He could take such doses as would formerly have destroyed life at once, without any apparent effect. But this resistance, as we have seen, is always accomplished at the expense of *vitality*—by a fearful waste of the *fund of life*—consequently even the smallest quantity of poison taken by him even who has become the most hardened to its use, is necessarily destructive to health and long life, and should be avoided as you would avoid the deadly sirocco.

Tobacco is such a substance, and one of the worst of its class—a deadly narcotic poison—according to universal consent; therefore it must be a fearful transgression of the organic laws, to introduce a particle of it into the vital economy under any circumstances whatever, (except as a medicine, and as we ought to any other medicine, under the prescription of a physician, and then only for once or twice, if indeed at all,) either in large or small quantities; and is, and must be powerfully destructive to health, fearfully wasteful of the fund of life, tending to produce and aggravate all manner of diseases, and totally opposed to happiness and longevity. To this conclusion we have come with perfect certainty; and I believe that all will agree with me thus far.

But here some may be ready to ask, is any of the substance of the tobacco really introduced into the vital economy; that is, into the circulation, and thus into the tissues of the organs, during the process of chewing, smoking, or snuffing? Some may say, we swallow none of the juice while chewing the quid; all the smoke is puffed out; and the snuff is blown from the nostrils again, with a most sonorous, musical, and agreeable sound! Thus none of the

poison is imbibed. This may appear plausible, but it is utterly fallacious. The whole of what may be called the limiting membrane—that is, the skin which covers the external surface and lines every internal cavity—is provided with millions of absorbents, whose office is to take up and carry into the blood substances which come in contact with the skin. In this way one of the Kings of Prussia is said to have been kept alive many days, without swallowing a particle of food or drink, simply by being immersed at intervals in a bath composed of warm soup. The absorbents of the skin took up a sufficient quantity of nourishing particles, and enough water, to sustain life. So, also, if a decoction of lobelia or tobacco be rubbed upon the external skin, it will cause vomiting. This must be because some of the medicine is taken into the system through the skin. These absorbents are particularly active in the membrane which lines the internal cavities—the mouth, the nostrils and the lungs.

Now, when tobacco is present in the mouth, as during the process of chewing ; or when smoke, which is tobacco in a state of minute division, is drawn into the mouth and inhaled into the lungs, as during smoking, or even when we breathe an atmosphere polluted with tobacco fume ; or when snuff, which is powdered tobacco, is applied to the membrane which lines the nostrils, as during the process of snuffing ; in any and all of these cases, the absorbents before mentioned are constantly pouring the poison into the blood, which is thence carried to all parts of the body ; thus corrupting the fountain of life, and introducing disorder, disease, and death into all parts of the system. So that, by the common method of using this deleterious substance, it is just as certainly introduced into the vital economy, there to do its deadly work, as though it were taken as a part of the daily food. Only think of the horror with which every one would regard the practice of mixing a certain quantity of arsenic with our daily meals ! Yet, it would be no more opposed to the laws of our being, and no more detrimental to the health of the deluded fool or madman, (as we should call any *human* who would do so,) than it is for our tobacco eaters to smoke a cigar after dinner, to take a quid of tobacco three times a day, or snuff a pinch when they wish to enjoy the delectable luxury of a sneeze ! Really, the practice of constantly eating this filthy weed ; by people

out of the mad-house, would be too ridiculous to write or talk about, if it were not for the invalids it is constantly manufacturing for the doctor, and the thousands of *cases* which it annually prepares for and delivers over to the undertaker. But when a destroying Juggernaut is riding up and down through the length and breadth of our beloved country, constantly crushing its thousands of blinded and besotted votaries, instead of quietly casting ourselves before its blood-stained wheels, every one of us who fears God or loves man, ought to preach an exterminating crusade against the monster without delay! Let the motto inscribed upon the banner of every Peter the Hermit, or Godfrey de Bouillon, be—*no quarter—war to the knife!*

I have said that when tobacco was used according to any of the customary modes—chewing, smoking, or snuffing—the absorbents were constantly carrying the poison into the system. This is proved by the effects which are often witnessed. Let a person not accustomed to it, take a single chew, or smoke a single pipe, without swallowing a single particle, and he will be sick and, perhaps, vomit. Why this effect, if none is absorbed? And even those who have become *hardened*, are occasionally affected in the same way: when they are *not*, the absorption is just as real and abundant, but they have brought their system into such a state that they are insensible to the effects, as in the case of the freezing limb cited above.

If I am not right, why are they so powerfully affected, through their whole system, when the customary quid is withheld? No reason can be given, save the absence in the system of that stimulating poison which is taken up from the tobacco by the absorbents. Fill the mouth, the absorbents act, the stimulus is supplied, the customary tone is restored, and the distressing feelings cease. But all this time the deluded victim is not aware that the drug is the very cause of those feelings which it appears to remove. Yet, such is the *fact*, else why do others never experience those feelings?

Another great source of evil is the effect which a use of tobacco produces upon the salivary glands. These are situated around the mouth, with ducts leading into its cavity, and they secrete the fluid which moistens the mouth and tongue and which serves to mix

with the food during the act of mastication. This fluid, as we have said, very nearly resembles the gastric juice by which the food is digested in the stomach, and, of course, it renders valuable assistance during that important process. These glands are constituted with such peculiar relations to those substances which constitute our ailment, that during the process of chewing said substances, they are aroused to action, and made to pour a copious flood of pure saliva into the mouth, which becomes mixed with the food, and goes to perform the office which nature designed in digestion.

Now this supply of pure, healthy saliva is essential to perfect digestion; otherwise nature would not have prepared it, and provided that it should be poured into the mouth during the very act of mastication, where it must necessarily be mixed with the food. Digestion cannot long be perfect without it; to say nothing of breaking down the stomach by the increased labor of providing an extra quantity of its own fluid. Food mixed with a foreign liquid, different in its nature from that prepared in the mouth, such as tea, coffee, or even water, lacks one of the essential requisites for good digestion. But the act of chewing or smoking tobacco stimulates the salivary glands to very intense action, causing a prodigious secretion and consequent waste of this important fluid, in an instinctive endeavor to protect the mouth and its organs from the poisonous influence of the tobacco. For proof, witness the constant spitting of the tobacco-eater. In wasting and poisoning with tobacco juice this precious fluid, he defiles everything upon which he can emit the filthy compound. This artificial or unnatural stimulation of these glands, like the stimulation of any other organ, must necessarily be followed by a corresponding reaction and prostration, during which they are unable to perform their functions; hence, as soon as the stimulation of the tobacco is withdrawn—as during a meal—they become unable to act, or at best act but feebly, and secrete none at all, or a very small quantity of saliva to mix with the aliment, and this of very inferior quality. Digestion is necessarily impaired.

But to make the case still worse, as soon as the natural supply of saliva fails during the act of mastication, in consequence of the deleterious effects of tobacco upon the salivary glands, the sufferer will

commence moistening his aliment with a foreign liquid, (perhaps a very bad one, such as tea or coffee, wine or cider, or the like,) and drink such quantities during meal-time that it is a marvel how digestion can proceed at all. Being unable to swallow food dry, and the supply of saliva failing at the very time (during meal) when most needed, the person is under the necessity as it were of washing it down with any liquid which comes to hand.

What more palpable and fatal violation of the organic laws which God has instituted for our observance, can be imagined than this? And yet, strange as it may seem, intelligent, rational, moral, and accountable beings continue on in the pernicious practice year after year! No folly can go beyond this! It is making one's self miserable at the expense of health and life. O, deluded mortal! how long before you will come to yourself, and swear to "touch not, taste not" the accursed thing?

Another bad effect produced by the constant use of this drug, and one well worth considering, is the deadening and paralyzing power which it exerts upon the special sense of taste. The pungent, acrid, stimulating, and poisonous properties which it possesses, have such a deteriorating effect upon this important and agreeable sense, that the tobacco-eater necessarily loses half the real enjoyment which he ought to receive in eating his daily meals. He is an absolute stranger to that pure, exalted, delicate and exquisite relish for the plain and simple articles which nature supplies for our tables, and which relish the person of unvitiated taste enjoys so highly. As the sense of taste is so nearly dead, he must have very pungent food prepared by art, or he can enjoy no pleasure in his meals. Hence, he must have food highly seasoned with such articles as salt, pepper, spice, ginger, sugar, vinegar, mustard, and even *cayenne*, in order to make it palatable. The acrid drug has so nearly killed the sense of taste, that it fails to appreciate the exquisite and inimitable flavors which nature has imparted to those simple substances which she designed to supply for our diet: hence, such articles are tasteless to him. He must be satisfied with those more pungent and powerful but far less agreeable flavors which may be given to "fixed up" dishes by art. But as art is far less perfect than nature, these artificial flavors give far less real pleasure to the diseased taste of this man, than the natural

flavors of food, which God prepares, give to him who has never injured his taste by tobacco, nor in any other way. Hence, the use of this poison causes a great loss of enjoyment in this way. Rather the enjoyment experienced is of a far inferior quality to that which might be experienced.

In short, everything is in favor of abandoning this foolish habit without delay ; and there is nothing against it, Not one valid argument can be urged in favor of continuing it, (if there can, let it be done,) while an hundred might be produced, any one sufficient to convince a reasonable person that it ought to be abandoned. All that remains is to act immediately.

I would conjure all who use this weed, as you love yourselves, your fellow men, and God, delay not in the work of reformation. Abandon your sin at once !

SALT.

Says Mr. Graham :—" The facts in regard to the dietetic use of salt, are these : 1. Salt is wholly innutritious ; it affords no nourishment to any structure or substance of the human body : 2. It is utterly indigestible, entering and going the rounds of the general circulation and leaving the body as an unassimilated mineral substance : 3. Its acrid quality is offensive to the vital sensibilities of the organs ; always causing vital reaction or resistance ; and *this vital reaction constitutes the only stimulation ever produced by salt ;* and is therefore always attended with a commensurate degree of irritation and vital expenditure, and followed by a correspondent degree of indirect debility and atony : and consequently it always and inevitably tends to produce chronic debility, preternatural irritability and disease :—the stomach, intestines, absorbents, veins, heart, arteries, and all the other organs of the system, are always irritated, exhausted, and debilitated by its presence : 4. It never, in any measure, promotes digestion nor any of the assimilating functions of the system ; on the contrary, it always retards those functions, and is unfavorable to all the vital changes : 5. It always, in proportion to the freedom with which it is used, diminishes gustatory enjoyment. Its use always and necessarily impairs the nicely discriminating power of the organ of taste, and takes away the delicate perception of the agreeable qualities of more proper food."

Salt is an active mineral poison. A moderate quantity of it taken into the stomach, unless it was immediately expelled, would cause speedy death. Its dietetic use, therefore, is open to all the objections which lie against the use of other poisons. Like other poisons, it produces intolerable thirst, and causes people to injure themselves by excessive drinking. This thirst is produced by the burning irritation which it causes on the coats of the stomach. It is wholly an evil and a curse, and should not be used at all.

“As to the instincts of the lower animals, it is not true that there is any animal in nature, whose natural history is known to man, which instinctively makes a dietetic use of salt. It is true that some herbivorous animals, such as the deer, when they are diseased by worms, grubs, or bots, in the alimentary cavity, will instinctively go in pursuit of salt; not as an article of diet; not as a seasoning for their food, but purely as a medicine to destroy the animals in their stomachs; and they never instinctively use it at any other time nor for any other purpose.”

Domestic animals are trained to use it, but it is not necessary except for medicine when they are diseased, and they will be no more healthy if fed regularly with salt. Their appetite for it, as is the case with man's, is an artificial depravity engrafted upon the natural instincts and sensibilities of their systems.

In man “the dietetic use of salt is largely concerned in the production of cancers, and other glandular diseases of the human system; it exceedingly aggravates many chronic diseases, and increases the liability of the body to diseases of every kind; it is directly conducive to scrofulous, pulmonary, and cutaneous affections, and disorders of the mucous membrane:—in short, it not only serves to predispose the human body to every form of disease, but also serves to aggravate and perpetuate every species of disease when actually induced, and hastens on a premature old age, by rendering the solids dry and rigid and inelastic.” If you are wise, you will not use the poison.

Other condiments, such as pepper, spice, ginger, mustard, vinegar, etc., are acrid, irritating stimulants, and are obnoxious to all the objections against other stimulants. They afford no nourishment and do no good; but they waste the fund of life, cause debility and disease, provoke the appetite to take too much food, and to demand

intoxicating drinks, diminish gustatory enjoyment, take away tranquillity of mind, cause mental depression and painful despondency, and increase the liability to insanity. They ought never to be used in any quantity whatever, for they are wholly evil.

Vinegar is a product of fermentation, or decay, and is far advanced on the road to putrefaction. It is an abominable substance to be taken into the stomach. What is called a *sour stomach*, is nothing but the presence of vinegar in that organ. Would you voluntarily produce such a loathsome condition?

All these condiments are highly irritating, to the stomach particularly. They keep it, if habitually used, in a state of constant inflammation, indicated by constant and often intolerable thirst. All parts of the body suffer in sympathy with it, and as the result of its impaired function. But especially does the mentality suffer. These substances, by inflaming the stomach, inflame the brain, which is intimately connected with it by numerous nerves; and of course inflame the passions, and deprave all the mental faculties. They both directly and indirectly impair the sense of taste, and of course immensely lessen gustatory enjoyment. They are of no use whatever, but are wholly evils, and that of great magnitude. Every rational man ought at once to abandon their use.

CHAPTER VIII.

FAT, BUTTER, MILK, ETC.

ANIMAL fat is undoubtedly one of the worst substances ever introduced into the human stomach for food. Its use is abominable in every respect. In the first place, it is almost or quite uniformly diseased and poisonous; having all the bad effects of a poison upon the system. As I have before remarked, most animals which are fatted and slain for interment in living sepulchres, are actually in a state of disease when they are killed; and the stomach is made a kind of "potter's field," to receive the unknown dead of all diseases! "The very process of fattening is a diseasing process." The fat of a fattened animal is always more or less diseased—more than the flesh.

But it is also poisonous. It has been conclusively proved, by reasoning which we have not space to repeat, that when any injurious or poisonous substance is habitually taken into the system, it is not all dispelled at once, but a part of it is deposited in the fat cells with the fat. But animals that are fatted, especially the swine, which furnishes most of the fat which is eaten, are regularly fed with all kinds of garbage and offal; sour, putrid, disgusting, poisonous substances! Examine the "swill barrel," out of which the hogs are fed enormous quantities every day, and say what you think of the character of their food. Is it wholesome, think you? Could you eat it daily, in large quantities, and remain in health? Would it not poison you sick, or to death? How then can the hogs escape disease? They do not. As we have said, they are uniformly diseased, and it is no uncommon thing for them to die of disease when about to be killed. They would all thus die if kept in this way much longer than they are. When you eat swine's flesh, you eat the bodies of animals diseased or sick with liver complaint, consumption, gout, dropsy etc. O, the beauties of flesh-

eating ! What dainty morsels it furnishes, to be sure ! For shame, ye human jackalls !

But the fat is the most corrupted part of these diseased bodies. The filth and poison in their abominable food is, by gluttony, introduced into their systems faster than it can be eliminated ; and hence the vital economy is forced in self-defence to stow it away in the fat cells, lest its presence in the general circulation should cause death. This execrable stuff is then eaten in large quantities by civilized and refined men and women, and in the nineteenth century ! O, depravity and sensuality !

Consider the filthy habits, the gluttony, and the disgusting, putrid, poisonous, abominable food of the swine, furnished from the "swill barrel ;" the pestiferous and intolerable stench of the "hog sty ;" the corrupted and pestilential atmosphere which they are obliged constantly to breathe ; the mire and pollution in which they constantly wallow ; and the absolute indolence in which they are forced to indulge ; and say if it is possible for them not to be diseased, or their fat not to be poisonous. If you can be swayed by no other motive, let a sense of decency restrain you from feeding on swine's fat, the most filthy and execrable substance ever eaten by fallen man !

In the second place, fat, except in very small quantities, is absolutely indigestible by the gastric juice of the stomach. This juice is nearly identical, in nature and office, with the saliva of the mouth. Neither have the power of dissolving and digesting fatty substances. When fat is eaten, it is managed as follows :—Bile from the liver is emptied into the small intestine about four inches below the pyloric, or lower orifice, of the stomach, and ought never to ascend into that organ ; and never does, unless some of the laws of health are violated, so as to cause irritation in the gastric cavity. Its presence there always causes irritation of the stomach, and derangement of its functions. When fat is eaten, which cannot be digested in the ordinary, proper manner, the bile ascends into the stomach and mixes with it. The bile has in its composition a strong alkaline substance. The cod-fishermen on the Banks of Newfoundland use the bile of the fish as a substitute for soap ; and it will make a strong cleansing suds, even with sea-water. Now, what is the result when an alkali and an oil are mixed

together? Soap is produced. Soap is therefore produced in the stomach of the grease-eater. This can be digested better than fat, but never so as to produce good chyle and blood; and the body built up and nourished by such materials must almost inevitably be imperfect, debilitated, and diseased. Besides, what person who regards *decency*, to say nothing of health, would rather make a *soap dish* of his gastric cavity, than to possess a pure, sweet, and healthy stomach? But if people choose to make soap dishes of their stomachs, they must be allowed their choice;—but their taste appears very singular!

The diseases which the use of fat produces are principally these, viz., dyspepsia, liver complaint, chronic diarrhœa, pulmonary consumption, sick-headache, eruptions of the skin, salt-rheum, St. Anthony's fire, erysipelas, leprosy, etc. These evils are less apparent in cold weather and climate, than in warm; but all kinds of greasy food are decidedly injurious at all times and under all circumstances.

From what has been said, it must be obvious that all kinds of gravies containing grease, whether fat or melted butter, are exceedingly objectionable and mischievous. They are execrable dishes—vile compounds only fit for the soap-boiler's vat. "They are truly abominable preparations, and ought to be regarded with deep and permanent abhorrence."

Fat mixed with flour and other substances, in the shape of cakes, pie-crust etc., is to the last degree pernicious. The greasy substances resist the action of the digestive fluids, just as the tallow on your boots resists the water and keeps it from penetrating the leather. All these villanous compounds must be subjected to the action of the bile before they can be digested; and they never can be properly digested, so as to form good chyle and blood. Inevitable disease is the consequence.

Concerning the use of *butter*, nearly all who have written or spoken concerning human aliment as connected with health, have reprobated butter; at least its free use. It is obnoxious to all the objections against other fatty substances; and should never be used in any quantity whatever by civilized man. It is an utter abomination.

Cheese, though not near so bad as butter, is still hard to digest,

irritating to the stomach, stimulating to the system, makes imperfect and bad chyle and blood, and diseases the mucous membrane of the mouth and stomach. It should never be used for food.

Milk is the food which nature provides for the young of all mammiferous animals. As soon as their teeth grow, they abandon it for solid food. So should human beings do. In infancy, before teething, there is a perfect physiological adaptation of the alimentary organs to milk for food. Milk—always from the mother's breast, unless some insuperable objection exists in her health or habits—is then the most proper food which the infant can receive. But as soon as the teeth become developed, there is a change takes place in the physiological condition of the alimentary organs, by virtue of which they become adapted to solid food—to which they were before unadapted—and consequently lose their physiological adaptation to liquid food, or milk. After that it is a transgression of the organic law to receive it into the stomach. The truth is this; milk is always and necessarily an inferior article of food for human beings, at all times and under all circumstances. But the infant, being destitute of certain important alimentary organs, can use no other; and by virtue of a certain physiological adaptation, it can do very well for a certain period on this. But the adult, coming into more active and laborious life, and having lost this alimentary adaptation to liquid food, cannot use milk without serious injury. A milk and vegetable diet is certainly to be preferred to a flesh and vegetable diet, and milk is less objectionable than butter or cheese; but a vegetable and water diet is much better than any other.

Cows' milk is frequently unwholesome and even poisonous, on account of the food and habits of the animals. If any injurious or poisonous substance be taken into the vital domain, with the food, or by absorption from the skin or lungs, or in any other way, during the period of lactation, a considerable portion of it is always mixed with the milk, and thus removed from the system. "It has been ascertained by experiment, that if two cows—the one nursing a calf, and the other giving no milk, receive in their food a quantity of poison sufficient to cause death, the latter cow will be killed by it, while the calf of the former will be killed and the mother will escape. In this way thousands of nursing infants have been

distressed, made sick, thrown into convulsions, and even killed by the poisonous substances voluntarily swallowed by their mothers and nurses ; and in this way thousands of human beings have been made seriously sick, and many have been killed by the poisonous substances which cows have eaten." Whatever affects the health of the cows, injures the milk. How often are they sick ; and yet their milk continues to be used!—The filth which is suffered to accumulate upon their bodies, in dirty and ill-ventilated stables, mixes with the milk, and gives it its own odor and taste. The salt eaten by the cow mixes with and poisons the milk. On the whole, it is safest and best to abstain wholly from its use.

Eggs are somewhat more exciting to the system than milk ; and if cooked, and especially if mixed with grease, are difficult of digestion. Besides, if kept a few days, they lose their vitality and become tainted. They are unnatural food, and ought never to be eaten by man.

CHAPTER IX.

MAN'S PROPER FOOD.

HAVING shown that flesh, fat, butter, cheese, eggs, salt, stimulating condiments, tea and coffee, tobacco, gravies containing grease, shortened cakes and pies, etc., are improper and pernicious articles of food, and ought never to be introduced into the human system ; we now come to speak of proper alimentary substances.

We have before seen that man is naturally *frugivorous* and *granivorous*—designed and constitutionally adapted to subsist upon *fruits and seeds*. Seeds and fruits therefore constitute his proper food. Seeds are the most nutritious, and ought to constitute the basis of his food ; while fruits are the most succulent, and are his natural and most proper drink. Used together, they form man's natural and proper aliment.

Wheat is beyond question the best substance, all things considered, for human food, ever known to man. It contains all the elements and substances necessary for human alimentation, so that a man might subsist upon nothing but pure wheat, with fruit or water for drink, not only without injury, but it would promote and maintain the utmost possible perfection of development, health, vigor, and strength, from infancy to the latest old age. It may be grown in abundance in almost all climates proper for human residence. Where it can be procured, it should undoubtedly form the major part of our food. But how should it be used ?

Man's alimentary organs are so constituted, that in order to remain in health, the food must consist of a certain proportion of innutritious mixed with the nutritious matter. Fed on pure nutriment, a person would soon die ; but if the proper proportion of innutritious matter be mixed with the same nutriment, he will live and remain in health. This is one of the most important of the organic laws. The same law governs the alimentation of all

animals. Their food must also consist of a due proportion of nutritious and innutritious matter, properly mixed. The organs of some animals require much richer or more nutritious food than others; but no animal can subsist upon pure nutriment, and live. And if you keep any animal whatever upon aliment which contains a larger proportion of nutriment than that to which his alimentary organs are constitutionally adapted, he will suffer, and finally become diseased, and perhaps die. Every species of animal is constitutionally adapted to food of a certain degree of richness: that is, their food must not vary in this respect beyond certain limits on either side. The horse, ox, etc., are constitutionally adapted to herbs for food, which contain a very large proportion of innutritious, mixed with a small proportion of nutritious matter. Substances of this degree of richness, therefore, constitute their proper aliment. Feed the horse and the ox upon wheat or corn alone, and they will pine away and die; simply and only because their alimentary organs are not constitutionally adapted to food containing so large a proportion of nutritious matter. Mix wood shavings with the grain, and they will thrive and do well. This has been often tried, and the above results are entirely certain.

Again; carnivorous animals are adapted to flesh for food, which contains a larger proportion of nutritious matter than herbs, and a smaller amount than seeds, in the same bulk or weight. Feed the lion, therefore, upon herbs or seeds, and he would suffer, become diseased, and perhaps die, because his food would not be properly adapted in richness to the constitutional nature of his alimentary organs. So of other carnivorous animals.

Again; man is possessed of alimentary organs constitutionally adapted to the use of *seeds* for food; the richest and most nutritious aliment in the world; and yet containing a certain considerable proportion of innutritious matter. He cannot, therefore, subsist without serious injury upon herbs, because they do not contain a sufficiently large proportion of nutritious matter; nor can he subsist upon food much richer than that which nature has prepared him, because it does not contain the requisite amount or proportion of innutritious matter.

It follows from these principles, that the use of *bolted flour* is a transgression of the laws of our being. When we separate the

bran from the flour, we take out almost the whole of the innutritious part of the wheat or rye, as well as some of the ingredients necessary to proper nourishment of the body, and leave the remainder, composed of a few of the nutrient principles, highly concentrated. The result is a very bad article of food. The best alimentary substance in the world is converted into one of the worst! Superfine flour alone would probably not sustain life for a single year; while wheaten meal, where none of the bran has been separated, will alone sustain life, health, and vigor, from childhood to the latest old age. The flour is destitute of the requisite amount of innutritious matter, which we have seen is absolutely necessary to the health of the alimentary organs and whole body; as well as deficient in certain substances necessary to the perfect nourishment of the body, which are found principally in the bran.

The stomach suffers and becomes diseased from digesting too rich food, besides being unable properly to digest it. The bowels almost cease to act, and of course become diseased, besides leading to all manner of other diseases. The principal use of the lower part of the alimentary canal is to carry away the innutritious part of the food. When the person subsists upon fine flour, there being little innutritious matter to carry away, this portion of the canal suffers and becomes diseased from want of its natural exercise or action; just as the hand would become weak and diseased if hung in a sling and not suffered to have any exercise. And the upper part of the intestinal tube requires the stimulus of innutritious matter, in order to make it act properly; so that when flour is used, which is almost destitute of this matter, its action becomes slow and sluggish, and its muscles, from want of use or exercise, soon become debilitated and diseased.

But another important use of the bowels is to excrete and remove from the system some of the effete and waste materials of the body, in a manner similar to the perspiratory action of the skin and other excretory organs. To perform this office properly, it must have the natural stimulation afforded by the presence of innutritious matter. When this is absent, the excretory as well as muscular action of the bowels subsides. As soon as they become debilitated from want of proper and natural muscular action, as they must when the food is deficient in innutritious matter, of course

their excretory powers will become impaired as well as their muscular; so that the requisite amount of excrementitious matter cannot be removed from the system. This is constipation. In this state, if the bowels were to secrete their proper amount of effete matter, not being properly removed by muscular action, it would be again absorbed into the system, to find its way out through other excretory organs, such as the skin and lungs. In this way the cutaneous and pulmonary excretions often possess the peculiar and offensive stench (only in a less degree) which is proper only to the dejections, or discharges from the bowels.

Although the excretory organs are capable of vicarious function to some extent, still the effete and waste matter, which ought to be removed by the bowels, cannot be properly and perfectly removed by the other organs, but much of it will remain in the system, to corrupt and disease it. Besides these, other organs having extraordinary and unnatural burthens put upon them, will break down, and thus accumulate evil upon evil. In short, it is admitted on all hands that habitual constipation, or inaction of the bowels, is fraught with immense evils. But food consisting of bolted flour, being deficient in innutritious matter, tends inevitably to produce constipation and all its concomitant evils. Reaction will also take place, producing the most distressing and dangerous fluxes. Perhaps preternatural and diseased irritability will be established, causing chronic diarrhœa.

True, if only a portion of the food consists of flour, and the residue of substances containing a large amount of innutritious matter, the evil will not be so apparent; but it is almost or quite impossible to keep the intestinal tube in order and in health, while any considerable portion of the food consists of bolted flour. The use of bolted flour bread, cakes, etc., as they are used by Americans, is among the worst—certainly one of the most useless, senseless, and absurd transgressions in civilized life. What, in the name of common sense, ever first induced people, by means of the bolting-cloth, or the fine sieve, to put asunder what God had joined together; and what unaccountable infatuation induces them to continue in the senseless and pernicious practice, would puzzle the wisdom of a Solomon to tell! No folly can go beyond this!

There is scarcely a custom in the world so totally destitute of

even the *shadow* of a reason for its support, as this. It flies directly in the face of nature, reason, and even common sense ; and all this without so much as the *ghost* of an excuse in its favor ! Bread made from unbolted and unsifted wheaten meal is as much superior, in taste and relish, to the insipid, tasteless *stuff* made from superfine flour, as it is more wholesome, and congenial to the laws of nature. This may not be true at first, to one accustomed to the use of fine flour, but it is testified to almost universally by those who have tried it for a short time. I repeat, unbolted meal bread, to one with an undepraved palate, is almost incomparably superior in deliciousness of taste to flour bread. How much, then, are you losing, ye epicures ! You defeat your own object.

But says one, it is unfashionable. A plague on fashion ! Cast it to the moles and bats which infest the ruins of the shattered and tumble-down temple of error ! Would you plunge into the fire because it was fashionable ? Will you then ruin your health, and destroy your happiness at the beck of the idol goddess ? For shame ! Let the world know by your actions that you dare be *free* ! that you are not ashamed to obey Gods laws ! As you value health and happiness, and God's smiles, banish fine flour from your tables—from your houses ! Not a particle of bran should be separated from the meal. Nature has mixed and compounded all the ingredients in precisely the right proportion and manner ; and it is presumptuous, not to say *impious*, in ignorant, blinded man, to attempt improving what God has made perfect. The more we tamper with and alter the natural composition of those seeds and fruits which nature has prepared for our food, the more we injure them, and abuse ourselves. Beware, O man ! how you meddle with and alter what God has fixed and established ! The two-edged sword of justice will assuredly fall upon your presumptuous head ! I verily believe the bolting-cloth, in this country, has destroyed as many lives as alcohol ; more than war. Wheat, in its natural state, is precisely right for human food ; the more it is altered, the more it is injured. Bolting nearly spoils it. But I need not argue this point further, for every one whose opinion is worth a straw upon this subject, will readily admit that unbolted meal bread is much better and more proper food than bolted flour bread can be.

Again ; fermentation or *raising* necessarily injures the wholesome-

ness, and deliciousness, and richness of bread, and is of no possible use whatever. Fermentation consists in a decomposition of the elements of the sugar and starch which nature has mixed with the other ingredients in grain, and their recomposition into other forms, so as to produce alcohol and carbonic acid gas. This gas, together with the vaporized alcohol, is what puffs up the dough and makes it *light*, as it is called. But it is necessarily injured, because some of its essential ingredients are destroyed—sugar and starch—to say nothing of the putrid and poisonous products of fermentation. Nor is this all the evil. Fermentation has commenced and gone as far the *first*, or, according to chemistry, to the *second* stage. It is suspended by baking, or it would soon run into the third stage, and become *sour*; or if it stood a little longer, into the fourth, and become putrid. This every housewife knows.

When the fermented bread is eaten, the conditions upon which fermentation depends—warmth and moisture—are again present, and it is extremely liable to commence again where it left off, and of course become sour in a much shorter time than it otherwise would, before digestion is completed. Hence that loathsome and health-destroying habit, a sour stomach. It is manifest that unleavened bread would be much less liable to sour in the stomach, than that which has already advanced far towards that state before it is eaten. Especially would this be the case with weak stomachs, where digestion was slow, and the gastric juice of inferior power, and less antiseptic. Besides, leavened bread is less rich and nourishing by the quantity of sugar and starch destroyed by the fermentation; so that it is a great *waste*. The natural composition and proportion of the elements and substances in the wheat is also altered, which greatly injures the food. And finally, its taste is injured as much as its quality. The sweet and delicious flavors imparted by the decomposed ingredients, which nature so perfectly and agreeably adapted to the undepraved senses of taste and smell in man, are destroyed; and a very bad taste—at least to one with an undepraved palate—is introduced by the yeast, which has already progressed nearly or quite to the state of *putrefaction*, before the bread is ready to bake. Indeed, before the yeast is mixed with the dough, I have seen it so near the putrescent state, that its taste and smell would utterly disgust any but the initiated! It must

continue to grow worse and worse until the bread is baked. What a substance is this to mix with the pure, sweet, undepraved meal, as it came all fragrant and delicious from the unerring hand of Nature!

Let those who wish to eat the nauseous and putrescent compound, yeast, do so; but I pray have me excused! The unleavened bread is incomparably more delicious than the fermented or *raised*. It is more nourishing. It is more healthy. It is best in every respect, and worse in none.

Can anybody tell what good *raising* does to bread? Why is it any better *light*, than it is *heavy*? The most common answer is, that bread not raised lies heavy on the stomach. Lies heavy on the stomach! What does this answer mean? What is meant by lying heavy on the stomach? If I should "answer a fool according to his folly," I should say that a pound of unleavened bread is no heavier than a pound of raised bread. How then can it lie heavier on the stomach? If you mean that it is more difficult of digestion in an undepraved stomach, I deny it, and challenge you to the proof. If a depraved physiological condition of the stomach renders it more difficult to digest, then remove the depravity by correct habits, and not continue it by continued transgression.

The spirit-drinker believes that water injures him, because it is, or feels, so much colder in his stomach than "grog;" but does it feel cold or "heavy" in the stomach of the temperate water-drinker? And what should the spirit-drinker do? continue the use of his "grog," because water feels cold in his depraved stomach, or abandon it, use water, and remove the depravity? The latter, of course. Do not depend upon the feeling which you call *heaviness* after eating unleavened bread;—it deceives you, or is the result of physiological depravity. After a mouthful of raised bread is properly masticated, insalivated, and prepared for swallowing, it has lost all its "lightness," and is as "heavy" as a mouthful of unfermented or unraised bread thus prepared.

If you say it is easier to chew when raised, I grant it; but for that very reason it is worse food. The teeth were made to be used, and unless they are used according to the original design, they will not only decay, but the physiological interests of the body will suffer. Alimentation cannot possibly be as perfect, where the teeth

are relieved of any portion of their natural labor. They were undoubtedly constituted and designed to grind seeds, taken in their natural state, for food. They have now become so much impaired by transgression, that they cannot do it, and we are obliged to do a part of their work for them; but still we should make them do all they can. We should not make our food into such forms as to relieve them from any more labor than is absolutely necessary. Most people's teeth can readily masticate unleavened bread; they should therefore do it. Properly made, it will be "light" enough for anybody, if mixed only with pure water.

I said the teeth were undoubtedly designed and constitutionally adapted to masticate seeds, taken in their natural state, without grinding or cooking, for human food. If the teeth were perfect, this would be the best way in which food could possibly be taken. It would give them proper exercise; they could not chew the food very fine, and it would be uncooked. Now, when we prepare it by art, we should alter its form and nature as little as possible from its original and perfect constitution. If we are forced to deviate from nature, still let us follow her as closely as we possibly can. Everything therefore goes to show that bread should be made of unbolted meal, retaining the whole substance of the wheat or other grain, ground quite coarse, mixed with the purest water that can be obtained, and with nothing else; and moderately baked in a hot oven, without any fermentation or raising. This will be the cheapest, most wholesome, most nutritious, and most delicious food which can be obtained. *Wheat*, made into such bread, is undoubtedly the *very best article for human food which can possibly be obtained in the world*. Perhaps *Indian corn*, or maize, prepared in the same way, is the next best—almost its equal, Indian meal should be run through a coarse wire sieve before it is used, in order to separate the chaff which adheres to the point of the kernel; but none of the substance of the grain should be separated. It should be made precisely like wheat meal bread. It is almost equally as good as the latter, except for dyspeptics, and people of impaired digestion. When the digestion is slow and weak, it is apt to ferment and sour in the stomach. Rye and barley, manufactured in the same way, make bread but little inferior to the above. Oats and millet make wholesome bread.

Rice, peas, beans, etc., boiled, make excellent food; but some inferior to bread, for reasons which I need not stop to produce. Potatoes boiled or baked become mealy, and resemble in nature the meal of seeds. By virtue of this resemblance they are tolerable good food, but not as good as seeds, man's natural aliment. Many kinds of nuts—yea, most kinds, make excellent food. An hundred kinds of the most delicious fruit are exactly and most perfectly adapted to man's alimentary nature and wants. They ought to be eaten when ripe, and as they came from the hand of nature, undebauched by cookery.

I have now enumerated the best kinds of food, but there are many others which may be used if better cannot be obtained. Buckwheat, and many kinds of garden vegetables, such as turnips, beets, carrots, etc., may be enumerated. But the wisest rule is to eat the best articles when we can obtain them; or at most eat the inferior kinds but seldom, by way of variety. If one article is superior to another for food, it is certainly best and wisest to use the superior article when we can get it. This rule will lead us to choose wheat and corn for the staple articles of our food, and fruits for our condiments. Bread, therefore, will be the main article of our diet, if we live in the best manner possible.

The best method to make bread is as follows:—Take the best wheat or corn that you can procure—wheat is best on the whole—wash it thoroughly, and have a moderate quantity, say a bushel, very coarsely ground. It would be better to have a hand-mill, so that no more need be ground at a time than you wanted to bake, for grain loses its sweetness by standing after it is ground. After a grist is coarsely ground, it should be aired and cooled, and then carefully put away in a clean meal-chest, in a clean and sweet room. Take *one pound by weight* of this meal, mix pure water with it until it is of the consistency of paste, so that you can stir it with a spoon, and it will pour out of the dish in which it is mixed. Mix it thoroughly, pour it into a common tin for baking, and bake it for an hour or so in a very hot oven. If properly managed, it will raise and become almost as light as fermented bread. If it is taken out, or the heat of the oven suffered to subside before it is sufficiently baked, it will fall. If people's teeth are good, and they do not care about having their bread light, it will be just as well, perhaps bet-

ter, to mix it hard, thoroughly knead it, and bake it less. When cold, it is ready to eat. This is the best food for man, in every respect, which can possibly be prepared by art.

Besides bread, fruit is the most natural and appropriate food of man. Apples, pears, peaches, plums, cherries, grapes, strawberries, raspberries, blackberries, whortleberries, gooseberries, watermelons, muskmelons, etc., etc., by proper care, may always be had in the greatest abundance. Apples may be preserved fresh the year round, and other fruits may be preserved by drying. If possible, fruit should always be eaten in its natural state, not for pastime, nor merely for the sake of gustatory enjoyment, but for food and drink, and as a part of our regular meals.

Concerning the use of sugar, it is true that all seeds and fruits contain a portion of it, mixed with their other ingredients, and that in this form it is proper, nourishing, and wholesome food. But all concentrations of substances, and all artificial combinations of alimentary substances, make unnatural and pernicious food. "Hence, though the saccharine matter of vegetables is highly nutritive and salutary, when received in the state in which Nature produces it; yet, when concentrated in the form of syrup, like molasses or honey, and still more in the crystallized form of sugar, it is decidedly unfriendly to the physiological interests of our bodies; and especially when used alone, or too freely with other substances. All this is likewise true of the vegetable acids."

The truth is this: Nature has mixed precisely the proper proportion of sugar with the other ingredients, in the composition of those seeds and fruits which she has prepared for our food. If we alter this natural proportion, we injure the food. If we mix in but little sugar, then we injure it but little; but it is just right in this respect as Nature prepared it. To eat clear sugar or molasses is a wicked transgression.—For the above reasons, sweetmeats, consisting of fruit preserved in sugar, perhaps with the juices boiled down thick, are injurious, and if eaten, should be greatly diluted with water.

I have named kinds of food enough to show that there is abundance of variety in the vegetable kingdom to satisfy the most fastidious taste, without resorting to the *abominable* practice of butchering the peaceful inhabitants of our fields, mangling and roasting their

bodies, and then feasting a horrid appetite upon their dead carcasses ! God grant that the time may speedily come, when man shall not be so hot on the scent of blood, but shall dine as becomes a rational being, upon the fruits of the earth !

Since the above was written, the writer has been accustomed to eat, with great satisfaction, bread made as follows :—Take half a pound each of wheat, corn, and rye meal, and mix them together with pure water, into a paste or dough as thick as can be easily stirred with a spoon ; pour into a large baking tin or pan, and bake thoroughly in a hot oven. The advantage of this method is, that it makes bread so light and soft that anybody can easily chew it. It is most delicious. No food can give more gustatory enjoyment, or be more wholesome. It is better for those with impaired teeth, than perhaps any other kind of bread. It is easy to masticate, and at the same time, being comparatively dry, it requires a large amount of chewing. We ought to avoid as much as possible those forms of food, which, from their soft and moist nature, elude the action of the teeth. This is the principal objection to puddings, and other similar dishes, if properly made. They do not require much mastication,—in fact, are not susceptible of it,—and hence must be imperfectly mixed with saliva. They must therefore oppress the stomach, and be less perfectly digested. We ought to choose comparatively dry and solid food.

CHAPTER X.

MAN'S PROPER DRINK.

MAN is so constituted that he requires daily liquid supplies, as well as solid aliment. No substance in the world but *water* can possibly answer or supply the natural demands of the system for drink. Water taken into the stomach is absorbed into the general circulation, but it is never assimilated. It serves to give fluidity to the blood, to supply the aqueous portion of the secretions, excretions, etc. No other fluid will answer this purpose; consequently no substances, except such as contain water, can answer the purposes of drink. As a general thing, foreign substances artificially mixed with water make pernicious drinks. Tea and coffee, beer, etc., are abominable, and not to be endured for a day.

Notwithstanding man requires daily supplies of water, yet the quantity, in a perfectly normal condition of the body, and under correct diet and regimen, is very small; not more than can be abundantly supplied, under ordinary circumstances, by the juices of those fruits and succulent vegetables which he ought to eat as a part of his daily meals. Nor need or ought the quantity of these to be large. If our habits are correct, we shall feel thirst only when the system really needs water. A small quantity of ripe fruit, taken with our meals, will then keep the system abundantly supplied with moisture, and, except under extraordinary circumstances, prevent our ever being thirsty.

In his lectures, Mr. Graham says,—“If the dietetic and all other habits and circumstances of man were truly natural and in strict accordance with the laws of his nature, he would very seldom require drink, and therefore very rarely experience thirst. The fruits and succulent vegetables which entered into his diet would afford all the aqueous matter that his vital economy requires; and this would always be of the purest and most salutary kind. Be-

sides, being introduced in such a form, the stomach would never be innundated by a flood of water at once, but would receive it more gradually, and in a manner better adapted to the action of its absorbent and receiving vessels. So that, by this means, the system would be secured from improper quantities and qualities of fluid, and the sense of thirst would never be depraved, nor its integrity impaired. Many individuals in the United States, who have adopted the diet and regimen advocated in these lectures, have so regulated their dietetic habits, as to be able to live without taking any kind of drink or feeling thirst for the space of three, four, and six months; and these have invariably found that their health was, in every respect more perfect at such times, than when they frequently experienced thirst, and drank even pure water. By deviations from the strict line of physiological rectitude, however, in the quantity and quality of food and drink, and other errors of voluntary habits, the actual demands of the vital economy for pure water are increased, and the integrity of thirst as a natural instinct is always more or less impaired."

The experience of the author perfectly corresponds with that of those mentioned in the above extract. While he followed the common dietetic and other habits of Americans, before he adopted a true physiological diet and regimen, he was in the practice, and had been for years, of drinking immense quantities of water. He was constantly, winter and summer, night and day, afflicted with a tormenting thirst, which he had not moral power sufficient to resist. It was a species of insanity, and drinking water became a real mania, which must be gratified at whatever hazard. He thought, and still thinks, that abstinence from water for a single day would have produced madness. In the summer it was the worst, and when laboring in the harvest field, he has often drunk several gallons in a day. The stomach would be filled and kept so full during the day, that it would not be emptied by absorption until near morning. A quart at once was a common draught.

After he adopted a correct system of living, and without any other means being used, this thirst entirely left him. He could now work through the hottest day in July without being thirsty hardly at all, and without drinking more than a very little if any fluid, of any kind whatever. When he could have ripe fruit, fresh,

to eat with his meals, he did not want any other drink. He has been for eight months together without even once tasting of any kind of fluid whatever during the whole time, or ever once being thirsty. During all this time his health has been perfect, and not the least lack of water in the system for all the purposes of life; not even excepting perspiration and renal secretion.

These experiments, as well as everything else, go to prove that, under ordinary circumstances, man need not, if his habits are correct, drink fluid. All the water which the real wants of the system demand, is abundantly supplied by the fruits which he ought daily to eat, and in the purest and most proper condition possible. This is as nature designed.

Now if man was designed and constitutionally adapted to receive the fluid necessary to sustain his body in health, in the form of fruits and succulent vegetables, as he beyond question was, then the reception of it in any other form, even the drinking of pure water, is to some extent a violation of Nature's laws, and therefore injurious: that is, it would be better to receive it as Nature intended. But if we cannot procure fruit, or if for any other cause the wants of the system cannot be fully supplied by its use, then pure water is the next best drink which it is possible to procure, and the only one which ever ought to be used by man. It should be pure and unadulterated.

One strong objection to the use of water rather than fruit to supply the demands of the system for aqueous matter, is the fact, that it is extremely difficult to procure water perfectly pure, or free from deleterious substances; while the juices of fruits are entirely free from all injurious substances, and just as Nature prepared them for our drink. The beverages which Nature has prepared for us are the best possible—are *precisely right*—and those differing from them in any respect are, of course, not as good. In Nature's beverages—the juices of fruits—there are no injurious substances mixed; while everything is present which makes, or is necessary to make them perfect.

Concerning water, most of that which is used for drink, or at least much of it, is too impure even for the purpose of washing our clothes; what do you say to its fitness for drinking? A large proportion of our wells furnish water so thoroughly impregnated with

mineral substances, that it is unfit for washing ; it is called *hard* water, and rain-water is used in its stead ; but it is drunk without any hesitation. Can it be possible that the mineral matter contained in several quarts of this water can be taken into the general circulation of the human system daily for years, without doing any injury ? It is irritating and offensive to the delicate tissues with which it comes in contact, and must of necessity be constantly doing injury.

“ It is well known that if hard water be habitually used for washing the hands, even for a short time, the skin on which it acts soon loses its natural softness and smoothness, and becomes dry and rough, and often cracks and becomes painfully diseased. And can any one believe that a fluid which produces such an effect on the external skin, that is protected by a horny epidermis or cuticle, can continually come in contact with the most delicate nervous and other tissues of the vital domain, and not injure them ?” If we use fruit for drink in the room of water, and so regulate our habits as to avoid the necessity of drinking, we shall of course escape the evils of drinking hard water—the evil of introducing daily into the system a large amount of poisonous mineral matter.

Again, the deleterious influence of unhealthy climates and situations is known to depend in a great measure upon the badness of the water found in them. It is a kind of proverb among people, that if the water is good, the situation is healthy ; if it is bad, it is unhealthy. If we are in a situation where the water is bad, and are under the necessity of drinking several quarts of it daily, how are we going to escape this deleterious influence ? But if we make fruit supply the necessary moisture to the system, and so regulate our habits that we shall not be under the necessity of drinking water, we can live in an unhealthy climate or situation with comparative impunity, and escape most or all of the deleterious influences which it is supposed to exert.

We have before remarkéd that if the habits are truly natural, the quantity of drink required by man will be small. All that he takes more than the legitimate wants of the system require, is evil, and necessarily injurious. If more be taken than is necessary, the absorbents which take it from the stomach, and the organs which excrete it from the system, are overtasked. Vitality is wasted there-

by, and the organs debilitated and prostrated, and finally diseased. The action of the stomach is also interrupted and deranged, and digestion therefore impaired. Dyspepsia with its train of evils follow. If, when we are at work, for instance on a summer day, we drink large quantities of water, and perspire profusely, the vital energy necessary to absorb and excrete it will be withdrawn in a measure from the muscles, and therefore make them less able to perform a given amount of labor; while the additional task thus put upon the vital machine will make it much more—perhaps painfully—fatigued at night, than it otherwise would be. So far from being less able to endure the heat, we shall be better qualified to endure it, as experience abundantly proves.

Whatever produces irritation in the stomach or alimentary canal, causes morbid thirst; remove the cause, and the effect will cease. The appetite may also demand large quantities of fluid from *habit*, when the vital economy does not need it, or perhaps would be injured by it. Break the habit, and this unnatural appetite, which is supposed to be true thirst, will be overcome. The appetite for drink can as well be depraved as the appetite for food; and in point of fact the depravity of thirst is almost universal. “When thirst, by whatever cause produced, is not the true instinctive demand of the vital economy for water, it is never so well satisfied with water as with some stimulating beverage; and when such beverages are used, the sense of thirst is still more depraved; and in exact proportion to the stimulating and intoxicating power of those beverages, and the freedom with which they are used, it becomes more and more exclusively a demand for accustomed stimulus, and correspondently, more frequent and more despotic. So long as the dietetic habits of mankind are greatly at variance with the physiological laws of the human system, therefore, nothing but necessity arising from the want of means, or the most powerful moral restraint, continually imposed and enforced, can keep the race from universal drunkenness:—and hence the melancholy fact that from the earliest history of the species until now, with the occasional exception of a limited and brief paroxysm of reform, the human world has staggered with inebriation; and, so long as the fixed constitutional laws of Nature shall remain, in spite of all the efforts that have been made or that *can be made* to choke man off from his intoxicating

cup, the human world will continue to stagger on, unless the reformation goes beyond the cup, and removes the deep depravity of thirst."

For reasons stated in Chapter 6, no fluid should be taken with our meals, nor until digestion is completed. The times of drinking, if we drink at all, should as a general thing be regulated with as much precision as the times of eating; that is, they should be at the same hour every day, as nearly as possible.

"On the whole, then, in regard to the drink of man, it were best, and most truly natural, if his dietetic and other habits were such that the demand of his vital economy for water were fully answered by the aqueous juices of the fruits and vegetables which properly compose a portion of his food." But if he *must* have drink, let it be pure water, not warmer than the blood, not taken with the meal or too soon after eating, nor in large quantities. If you are thirsty, or if you cannot get fruit, take a glass of pure cold water—rain-water is decidedly the best of any that can be procured—some twenty or thirty minutes before eating, or three or four hours after. Have a regular hour for drinking, and regulate the quantity according to the real demands of the system. Nothing but pure water should ever be drunk. Never drink for pastime, or because the beverage has a pleasant taste, but solely to supply the legitimate wants of the system. Obtain a good filter, for the purpose of filtering rain-water, and you can always have water almost as good as distilled water. But if possible, make fruit supply the system with aqueous matter.

The above remarks are designed to apply to those in health. In certain conditions of disease, very copious drinking of pure water may be very salutary, and often necessary. Indeed, internal as well as external applications of cold water are employed with the greatest success as remedies in cases of disease, and promise soon to supersede all other remedies; but still it is best to remain in health, by obeying the organic laws, so as not to be obliged to use even the *water-cure*. "An ounce of preventive is worth a pound of cure," let the cure be ever so valuable. We will leave this application of water to the physician, as our purpose is only to speak of the laws which govern the system in a state of health. To cure disease, it is frequently necessary to take a certain course, which

would not be salutary—at least not the best course to pursue—in health. However salutary copious drinking may be in certain diseases, it is certainly not necessary, nor best, in health. But in health, and with correct habits, there is little or no danger in this direction; and with improper habits,—especially *dietetic* habits,—copious drinking, at proper times, may mitigate the evil.

CHAPTER XI.

QUANTITY OF FOOD.

IT is a common saying, that it is not of so much importance *what* a man eats, if he is strictly temperate in regard to *quantity*. It seems to be a common opinion that mankind habitually eat too much; and that this excessive alimentation is the cause of much of the disease and suffering which so sorely afflict the race. Well would it be for Americans if they consistently acted up to this conviction! It would save them untold suffering and distress!

There is not a doubt but that excessive alimentation is one of the greatest evils in the world; and quite as little that the majority of Americans, in particular, make perfect gluttons of themselves. They mainly *live to eat*, in the room of *eating to live*; at least they make eating one of the principal objects and ends of their lives. Gluttony is one of the besetting sins of the people. In order to gratify a depraved and diseased appetite, they habitually and constantly eat two or three, and frequently six or eight times the quantity of food which they ought. There is nothing equal to this habit in its deadly influence upon the system: therefore no point in a system of physiological reform can be of more interest and real importance.

We need a certain amount of aliment each day; enough to take the place of the effete matter which is eliminated, and to keep up the supply of animal heat; and every particle taken more than this is an evil, and an injury to the vital machine. The living body is so constituted, that every vital action which is performed in or by it occasions the transformation of a certain amount of the substance of some of the living tissues into amorphous or effete matter, which is expelled from the vital domain, and materials supplied by the food take its place in the tissues. For instance, no muscular action can be performed without consuming a portion of the acting

muscle, that is, converting it into effete matter. The greater the muscular action, the greater the consumption of muscle, and the greater the amount of food required to supply the waste; and on the other hand, the greater the consumption of muscle, other things being equal, the more muscular power produced. In general, the greater the vital action, the greater the transformation of tissue; and the greater the transformation of tissue, other things being equal, the greater the amount of vital power produced. Hence, the greater the intensity and amount of vital action, the more food required; and the greater the quantity of food consumed and assimilated, the greater the amount of vital action produced, and the greater the expenditure of vitality, and waste of the *fund of life*. But, as we shall soon see, the amount of actual power produced, especially muscular power, does not necessarily depend upon the amount of vitality expended.

As we have before remarked, every person is endowed with a certain definite and unreplenishable amount of vitality, or fund of life, which cannot be added to, but which may be squandered in one-half or one-tenth part of the time which it might be made to last. As another has expressed it,—“Every human being comes into existence with a determinate amount of constitutional stamina—an unreplenishable fund of life. This fund cannot, by any possible earthly means, be made to meet the necessary expenditures of vital action, beyond a certain period:—but it can be profligately squandered in one-fourth, or one-tenth part of the time which it might be made to last. All vital action is necessarily attended with some expenditure of vital power and waste of organized substance,—draws something from the ultimate and unreplenishable fund of life—and, therefore, all excessive vital action, all *intensity* of vital action, increases the expenditure of vital power, and necessarily abbreviates the duration of life.”

The way in which excessive alimentation increases the amount and intensity of vital action, and thus wastes the fund of life, is as follows:—When the food is taken into the stomach, it is first *digested*; this consumes a certain amount of the vitality, or fund of life. If the quantity digested be more than the real wants of the system require, of course the amount of vitality consumed in digesting the surplus quantity is *wasted*, and the life abridged by so much.

But the evil has now only commenced. The food is *digested*, but not *assimilated*. It is still dead matter, not endowed with the powers and functions of life. It can be assimilated, or become a part of the living system, only by being endowed with vitality from the fund of life. A particle of food thus endowed with a certain amount of vitality from the fund of life, becomes a part of the living tissues, --a part of some muscle for instance; and when muscular action is required, this particle, together with others, parts with its endowment of vitality, which goes to produce muscular action or power, and is left a particle of dead matter, as much as it was before it was introduced into the system: it is taken up by the absorbents, removed from the body, and its place in the muscle supplied by another particle of food freshly endowed with vitality from the fund of life. Thus our food is endowed with vitality by the nerves of organic life, becomes a part of our living organism, parts with its vitality which goes to produce and is consumed in producing vital action or power, becomes itself dead matter, is removed from the system, and its place supplied with new materials from fresh supplies of food.

While the body is in tolerable health, and indeed always, except in certain conditions of disease, if too much food be taken into the stomach, too much will be digested, and too much assimilated, and there will be a too rapid transformation of tissue. All this will be increased if the food be stimulating, or of an improper kind, or if stimulating condiments be used. Every particle of food assimilated consumes a certain amount of the fund of life; hence, if twice the proper amount of food be taken and assimilated, twice the necessary amount of vitality will be consumed, and consequently the life abbreviated half. All this is said on the supposition that health is maintained, and the integrity of function of the assimilating and eliminating organs preserved. This will not, however, be likely to be the case. The habitual overworking of these organs will break them down, or derange their functions. Portions of the food, which cannot be digested, will remain in the stomach and intestinal tube, to sour or putrefy, and irritate and disease those important organs, and corrupt and poison the whole body. Or portions of the digested food, which cannot be assimilated, or of the effete matter, which cannot be excreted, will remain in the general circulation, and be-

ing unendowed with the requisite amount of vitality, will decay, and thus fill the body with putrefaction, disease, and death! The person will be cut off in the midst of his years.

In view of these facts, how foolish appears the common delusion, that as long as the stomach does not break down, no injury can be produced by excessive alimentation. As long as there are no symptoms of indigestion, and the stomach appears to perform its office without difficulty, it is almost impossible to convince people that they have been injured, much more that they have been made sick, by over-eating; although they perhaps habitually over-eat, and are constantly suffering under sickness or disease. Perhaps the vigor of their digestion is one of the worst enemies which these people have. By permitting them to introduce into their systems more aliment than can be assimilated, which becomes the active and efficient cause of all manner of diseases, they make themselves wretched, and it causes early and premature death. Dyspepsia, bad as it is, would be a blessing in such cases; perhaps in all cases of greatly excessive alimentation. It would prevent much violent and painful sickness, and many fatal diseases.

Suppose that the stomach is strong and healthy, and able to digest twice the proper amount of food without material difficulty; the person eats this excessive amount, and supposes that it does not injure him. But the lungs, for instance, are weak, and incapable of vitalizing or assimilating more than half the aliment which would thus fall to their share. Hence, they would be constantly receiving, along with the arterial blood, twice the amount of aliment which they could assimilate. The eliminating powers would be also impaired, so that a large amount of unassimilated and waste material would remain in them to irritate and disease them. They must remain diseased as long as this state of things continues. Thus are the iniquities of the stomach visited upon the suffering lungs, while itself remains in health; and the miserable victim is deluded on to his death! Just so with other diseased and weak organs.

So we see that the ability of the stomach to digest must not be made the standard to determine the proper amount of food, as it commonly is, but the ability of the weakest organ in the body to receive and assimilate; at least this would be a better and safer

standard. No more food should be taken, at most, than the weakest organ is abundantly able to assimilate its proportion of. And if more be taken into the body than can be assimilated, it remains in the system to putrefy, and to predispose it to all manner of acute diseases, and to aggravate them when they come.

It is commonly supposed that the more food taken and digested, the more muscular power is produced. But this is not the case, for several reasons. Although it is digested, it may not be assimilated, and hence, can produce no power. If the extra amount of food is assimilated, it causes, it is true, a greater expenditure of vitality, but this does not necessarily result in an increase of actual muscular action or power. This wasted vitality may be consumed, and in point of fact, is principally consumed in other vital actions. More vitality is necessary in digesting and assimilating, in composing and decomposing, and eliminating this increased quantity of aliment; the heart must beat oftener, the blood circulate faster, the lungs act more rapidly, the excretory organs must all work more intensely, and in fine all the organs of organic life must be supplied with a much larger amount of vital power. This will consume the extra amount of vitality produced by the more rapid transformation of tissue, and perhaps leave the muscles supplied with a less amount than they would receive when only a proper quantity of food was consumed; hence, actual muscular power or action would be diminished, rather than increased, by excessive alimentation.

Again; the amount of actual power produced depends upon the physiological condition of the acting muscle and the system in general, as well as upon the amount of vitality expended. Twice, or perhaps *ten times*, the amount of vitality would have to be expended, to produce a given amount of muscular power, with a muscle in a bad physiological or diseased condition, which would be necessary to produce the same result with an organ in a proper condition; just as much more strength would be necessary to chop a given amount of wood with a poor dull axe, as with a good sharp one. Hence, the expenditure of a larger amount of vitality upon a muscle in a bad condition, would produce less actual muscular power, than the expenditure of a smaller amount upon an organ in a proper condition. But excessive alimentation tends inevitably to disease, or at least to deteriorate, the physiological condition of the muscles

and the whole body ; hence, the glutton is unable to perform as much muscular labor as he who is abstemious. This conclusion exactly corresponds with facts, as we shall see.

If man was a mere machine, like a steam-engine, then the more food he consumed in his body, provided he did not "burst his boiler," the more force he would be enabled to manifest. But even in the case of the engine, if it is not properly constructed, or if it is out of repair, the consumption of a given amount of fuel, would not produce so much actual power, as though it was more perfect in construction and condition. True, the more fuel burned the more heat produced ; but the amount of actual power depends upon the perfection of the machinery which is to convert heat into locomotive power. So the more food assimilated the more vitality expended ; but the amount of actual power depends upon the perfection and condition of the organs which are to transform simple vitality into muscular power or action. The difference between man and the engine is, that the latter is not so liable to get out of repair by the burning of a larger amount of fuel, as the former is by the consumption of an excessive amount of aliment.

Again, as soon as diseased action is established in any part of the system, a large amount of vitality will be necessarily expended in keeping up that ; which will perhaps deprive the muscles of their proper and full amount. On the whole, it is impossible that excessive alimentation should increase the muscular power of the human body ; it will necessarily diminish it, and produce disease and premature death.

The truth is this ; man requires a certain amount of food, and the daily expenditure of a certain amount of vitality, to keep him in health and vigor, and in a perfect physiological condition. He will then be enabled to manifest the greatest muscular and mental power which he is capable of manifesting under any circumstances whatever ; at least for any length of time. If he attempts to increase this power by excessive alimentation, and the consequent expenditure of a greater amount of vitality, he will waste the fund of life, abridge the period of his existence, deteriorate his physiological condition, impair and diminish his muscular and mental activity, vigor and power, produce all manner of diseases, and lay him in a premature grave ! Every particle of aliment taken more than

the legitimate wants of the system require, is evil and mischievous, and the effects pernicious.

Excessive alimentation will almost inevitably, sooner or later, break down the organs or parts which are the most feeble, and bring them into a state of active disease. "When disease is once established in such an organ," says Mr. Graham, "by such a cause, so long as the alimentary matter received into the digestive organs, is more than the good of the diseased organ requires, that organ will be kept in a diseased state by excessive alimentation, unless, indeed, a more active disease should be induced in some other organ. Thus, by excessive alimentation, chronic disease, and often of the most distressing kind, is produced and kept up for years, in the brain, eyes, ears, nose, mouth, throat, lungs, stomach, intestines, liver, kidneys, skin, nerves, muscles, bones, or some other organ or part, and perhaps finally terminates in premature death; and all the time, the deluded sufferer is resorting to every conceivable remedy but the true one, and dosing himself with every species of drugs and medicines, that human science and ingenuity can devise, and that empiricism can employ: and as continually cherishing his diseases, and perpetuating his sufferings by excessive alimentation, or by over-eating. It is therefore, beyond all question, true that in all countries where human aliment is abundant, and easily procured, gluttony or excessive alimentation, is decidedly the greatest source of disease and suffering, and premature death, to man!"

No doubt but that Americans, as a body, habitually eat twice or thrice as much food as they ought. "Indeed," says the author before quoted, "it is unquestionably true, that at least ninety-nine of the farmers and other laboring men of New England, are prematurely worn out and broken down by over-eating, where one is thus affected by excessive labor or hard work."—Why are men so gluttonous?

In the first place, they are provoked to over-eat by the great variety of artificially prepared food which is habitually set before them. The appetite is thus constantly stimulated to the utmost. A person will sit down to a table covered with half a dozen, or a dozen different kinds of artificially prepared food, regularly graduated on a scale of gustatory relish, from the lowest to the highest; so as to secure the reception of the utmost possible quantity of ali-

ment. He begins with the lowest on the scale—that is, with the article of the least gustatory relish, or the least agreeable taste, or the one affording the least gustatory enjoyment; and eats of this as long as it relishes. He has then probably eaten enough—more perhaps than he ought; but he is not satisfied. He takes the article which relishes next best, and eats what he can of that; and so on to the last. After eating two or three times the quantity of food which he ought, he can still “top off” with a piece of pie or cake, or something of that kind, and relish it. In this way he is constantly provoked to over-eat, until he depraves and diseases his appetite, and forms a habit of eating excessive quantities, which it is extremely hard to break. After this he will eat the usual quantity from *habit*, and really believe that he needs it.

It is utterly hopeless to attempt to avoid excessive eating, so long as the appetite is constantly tempted and stimulated by this great variety and artificial preparation of food. The overshadowing evils of excessive alimentation will continue to curse any people, so long as they practice this preparation, and have all this variety at the same meal. There should be but one kind of solid food at a meal, served up with as little artificial preparation, and therefore as near the natural state as possible; together with one kind of fruit for drink, eaten if possible just as it came from the hand of nature. This will greatly assist us to avoid over-eating, which is one of the most important parts of a correct regimen.

Again; people are in the constant habit of eating stimulating food. The nervous system is thus accustomed to depend upon the food for its usual supply of stimulus. The nervous craving for stimulation, which is thus established, is therefore referred to the stomach for satisfaction, and manifests itself in the form of appetite, or longing for stimulating food. This is supposed to be true natural appetite, and therefore habitually gratified, when in fact it is no more a natural instinct than the craving of the drunkard for his rum; but a diseased lusting of the same nature. Instead of being a natural appetite for food, it is a diseased longing of the nervous system for stimulus; customary supplies of which it is in the habit of receiving by means of the food. The appetite will be satisfied therefore, not when aliment enough has been received, but when the nervous system has been brought up by stimulation to its ordi-

nary tone,—and not before. It is almost impossible, under these circumstances, to avoid excessive alimentation. The remedy is to avoid all stimulating food and drink, until the nervous system recovers its natural and health tone ; then this craving will cease.

But when a person first reforms from stimulating to unstimulating food, this craving or longing for the customary stimulus, will be peculiarly strong and hard to resist. Then is the danger. Unless he exercise the most extreme caution, and the most rigid self-denial, he will establish the habit of eating enormous quantities, which it will be extremely hard to break. If he adopts a correct diet and regimen, his natural appetite will also be immensely improved and exalted, which will increase the necessity for care, and the exercise of moral courage. Now comes the “tug of war.” “A man may fight a battle like a hero, brave almost any danger, and do most desperate deeds with an undaunted front ; but give him a keen appetite, with an edge of which the very shadow cuts, and place before him the really good things of earth, and what a poor, frail creature he will, nine times out of ten, prove himself to be. One great difficulty is, he does not know how much he ought to eat, or how much he may properly eat—that is, the number of ounces of this or that kind of food. True, he may have heard it laid down often and emphatically, that we must eat no more than the system requires ; but he might about as well be told not to swallow a meeting-house without first taking the steeple off. Every mouthful he eats forms a link in the chain of an argument by which he satisfies himself, or tries to, that *his* system requires ‘a little more,’ or that he may, by way of experiment, at least *this time*, indulge in a full allowance. He is always for trying the experiment the wrong way. He wants to see how much he can eat without killing himself ; then he will think of lessening the quantity.” Do not depend upon appetite at all, either in selecting your food or determining its proper quantity ; for in the present condition of the human race it is utterly depraved and perverted, and is a blind, and what is worse, a *false* guide,—leading those who trust themselves to its guidance, to inevitable disease and premature death. Force it to obey the injunctions of reason, judgment and conscience.

“Again ; a vegetable and farinaceous, substituted for a flesh diet, is more nourishing according to its weight or bulk ; hence the

great danger of exceeding in quantity the wants of the system. Besides, the former being less stimulating, the processes of digestion and assimilation, and indeed all the vital actions, are less hurried, decomposition and elimination are less rapid, and, consequently, the body is more thoroughly nourished with the food we take, and a less quantity is requisite. Assimilation being more perfect, the blood is less perishable, the pulsations of life more natural, and consequently, as we have before said, the waste of the system, and demand for repairs are proportionably less. Now, if a person who has partially sanctified himself from his former habits, and recovered, in a measure, his natural healthy tone, goes on to 'feed himself without fear,'—his is a hopeless case."

As this subject is of the most vital importance,—as excessive alimentation is the greatest obstacle to success which dietetic reformers have to encounter,—as repletion is the rock upon which thousands have split, we shall be pardoned for introducing a few extracts.

"Every individual should, as a general rule, restrain himself to the smallest quantity which he finds from careful investigation and enlightened experience, and observation, will fully meet the alimentary wants of the vital economy of his system, knowing that whatsoever is more than this, is evil! And let every one remember also, that, as a general rule in civilized life, there cannot be a blinder guide, in regard to quantity of food, than appetite; and he that follows it will surely be led into excess! for the most athletic and active laborer, cannot habitually eat artificially prepared food, even of the simplest and plainest kind, till his appetite is perfectly satisfied, without sooner or later experiencing serious evils from excessive alimentation: and if this be true of the robust, active laborer, to a much greater extent is it true of the inactive, and sedentary, and studious, and feeble. Thus far in the great experiment, it is certain that excessive alimentation, or over-eating, has been the grand cause of failure with a large majority of those who have been unsuccessful adventurers in the dietetic system which we advocate." "In some cases of disease, it will often be found necessary for the invalid to limit himself to the smallest quantity of food that will prevent actual starvation. 'The more you nourish a diseased body,' said Hippocrates, 'the worse you make it.'

Now the grand question comes up, how much should we eat? I suppose all will agree with me that excessive alimentation is a monstrous evil; and are, perhaps, anxious to adopt the proper quantity, if they knew what it was. How much, in ounces, may a man eat? This is a most difficult question to answer; and indeed every person must determine it for himself; but still general rules for particular classes may be laid down, which will be at least approximation to the truth. After a reformer has arrived as near the true quantity as possible in this way, he must, by enlightened experiment upon his own person, determine the exact quantity of aliment which the legitimate wants of the vital economy of his system requires. When this is once ascertained, he must rigidly abide by it. But in making these experiments, he must not depend upon his *feelings*, or he will certainly be led astray, and arrive at false conclusions in the end. A man who should make the experiment of abandoning the use of tobacco, to which he had long been habituated, if he depended upon his *feelings* for the first few days or weeks, would certainly conclude that his system demanded this abominable poison, and that he could not do without it. This has actually been the result of a thousand experiments of this kind. The true way to judge, and the only way to judge correctly in this matter, would be to abstain from it until the system had become accustomed to do without it, and had had ample time to recover its natural tone, and as far as possible to repair the injury done by the drug, and eradicate its effects. Then compare, in the light of true physiological knowledge, the present condition of the body and mind with what it was under the habitual use of tobacco.

In this way one might determine the real influence which tobacco produced upon his system, and determinately settle the question whether it was necessary to his highest well-being. The same principles would apply to similar experiments with regard to the use of alcohol, opium, tea, and coffee, etc. The immediate feelings would determine nothing, but the final result of a long continued experiment. And yet, people are so ignorant, short-sighted, foolhardy, and perverse on this subject, that they will implicitly depend upon the immediate feelings produced by such experiments, and call them their *experience*! O human perversity and depravity!

The same principles apply to experiments to determine the proper

quantity of food. If a person materially diminishes the amount of food to which he has been accustomed, he will, at first, almost infallibly feel a want of sufficient nutriment,—faintness, loss of strength, loss of flesh, and other unpleasant, and to the ignorant, alarming symptoms. And all this perhaps while the amount of his food is still too large. But let him continue the experiment, and and he will soon find these symptoms vanish, and an actual improvement take place in his system. More especially will the above symptoms and results follow, if the change be made from stimulating to unstimulating food; or from flesh-meat to vegetable food.

The true way to determine the proper quantity of food, therefore, which any one's system requires, is first to ascertain it as nearly as possible by general principles, and gradually bring himself to that quantity. If he finds by continued experience and observation, conducted in the light of physiological truth and knowledge, and persevered in for a sufficient length of time, that the amount is absolutely insufficient properly to nourish the body and maintain the strength under a proper amount of exercise, then let him increase the amount an ounce per day, and patiently wait until the legitimate results are developed, and then judge whether the amount is large enough. If not, let him add another ounce in the same way, and so on until he has accurately determined the true quantity. But if, after trying it several weeks or months, until he is perfectly certain, he finds that the first quantity is amply sufficient for the wants of the system, and wishes to ascertain whether it is not more than he needs, let him diminish it by *an ounce*, and wait several other weeks or months, or until his intellect and conscience are perfectly satisfied, and then honestly compare his then present condition with what it was before. If he find an improvement, or no deterioration, he may safely conclude that the last quantity is sufficient, and that the first was excessive, to the amount of at least an ounce a-day.

In this way he ought to continue experimenting, until he is entirely satisfied as to the exact quantity which he needs under his peculiar circumstances, situation, employment, etc. When once ascertained, he ought to confine himself to it with as much scrupulousness and honesty, as he would obey a direct mandate of God from heaven!

- It is generally supposed that different individuals, even when in health, require—legitimately, and naturally, and necessarily require—vastly different quantities of aliment properly to nourish and sustain their bodies; and that different circumstances, and situations, and employments, make great differences in this respect: but this is nearly all delusion and fallacy. This is not true to any great extent of other species of animals, except, perhaps, some which man has depraved and diseased, and it is irrational to suppose that it is true of man. All lions consume nearly the same quantity of aliment; so do all oxen. The same is true of sheep. But more especially is it true of animals which live in a state of nature. If the horse is, to some extent, an exception, it is because the artificial habits which man has forced upon him, have depraved his instincts and diseased his body; in his natural state, as he exists on the plains of South America, he is no exception. Now, what more reasonable than to suppose the same is true, or was true originally, of man; and that all the differences which now exist in this respect are conditions of disease, or caused by disease? I firmly believe this to be the case—that in a condition of perfect health and normal vigor, every individual would require the same, or very nearly the same amount of aliment.

As to occupation, it is true that the more muscular exercise performed, the more food required; but even differences in the amount of labor performed, do not cause the proper quantity of food to vary anywhere near as much as is commonly supposed: besides, there is somewhere a proper standard of amount in exercise, much beyond which a person should not go, nor much below which he should not fall, if he would preserve his system in the best possible condition. The laborer should not perform an excessive amount of labor; and if the sedentary man does not perform enough, or come up to the proper standard, he should make it up in exercise. In this way all would come nearer to an equality in the amount of muscular action which they performed.

So that on the whole, the quantity of food which a healthy, robust, or vigorous man requires, whose habits are all correct, is nearly the same for every individual. The difference in this respect is, at any rate, so small, that no material inconvenience or injury would result, if all were to partake of the same quantity, provided that

quantity was nearly the true one. Certainly the evils of this course, if any evils would result, would be a thousand fold less than they are under the present system, when appetite is the sole guide.

As to those who are diseased, of course they must regulate the quantity of their food according to the condition of their health, or of the diseased organ or part, until the diseased action is removed, and the health and strength restored; then they can adopt the standard. But if people would determine the true quantity by experiments such as I have described, it would be better, undoubtedly, than to adopt a standard.

As to the proper amount of food in ounces, of course, experience alone can determine it. It may be thought that single experiments are of little value; but yet they are of some value. They determine the capability of the human constitution; and if they are about average cases—that is, if the subjects of them are ordinary men with common habits, and without any remarkable constitutional peculiarities, they determine a great deal. We may reasonably conclude that the general results produced in such cases, would be produced in all cases, where the like experiments were made by ordinary men, with common habits and occupations, and who were without remarkable constitutional peculiarities. By carefully observing all the circumstances, the enlightened physiologist will be enabled to determine, from a few experiments, very nearly the number of ounces which an ordinary man, under ordinary circumstances, ought to eat per day; as an astronomer can determine, by a few observations, the orbit of a star.

Louis Cornaro, an Italian gentleman, who lived about three hundred years ago, having, by intemperance and gluttony, broken down his constitution, and induced diseases incurable by medicine,—having tried all kinds of remedies in vain, was told by his physician that he must die in a few months, unless he adopted an abstemious regimen. This he did at about the age of forty. Physiological knowledge was not then so far advanced as it is now, but he did the best he knew. Ascertaining, as well as he could, by experiments upon a diseased body, without any true scientific knowledge to guide him, what kinds of food were proper, he adopted the kinds which he thought best, and ate of bread, meat, the yolk of an egg, and soup, in all exactly *twelve ounces*, and drank fourteen ounces of

wine. He says, "The consequence was, that in a few days I began to perceive, that such a course agreed with me very well; and by pursuing it, in less than a year, I found myself (some persons perhaps will not believe it) entirely freed from all my complaints."

He also regulated his general regimen, and rigidly adhered to this quantity of food—*twelve ounces*—enjoying almost perfect health, and freedom from disease and sickness, until his seventy-eighth year; that is, for near forty years. He was then persuaded by his friends, against his own judgment, to increase the quantity, which he did by two ounces of food, and two of wine. He says, "This increase and irregularity had, in eight days time, such an effect upon me, that from being cheerful and brisk, I began to be peevish and melancholy, so that nothing could please me: and was constantly so strangely disposed, that I neither knew what to say to others, nor what to do with myself. On the twelfth day, I was attacked with a most violent pain in my side, which held me twenty-two hours, and was succeeded by a terrible fever, which continued thirty-five days and as many nights, without giving me a moment's respite; though, to say the truth, it began to abate gradually on the fifteenth. But notwithstanding such abatement, I could not, during the whole time, sleep half a quarter of an hour together, insomuch that every one looked upon me as a dead man. But, God be praised, I recovered myself by my former regular course of life, though then in my seventy-eighth year, and in the coldest season of a very cold year, and reduced to a mere skeleton; and I am positive that it was the great regularity I had observed for so many years, and that only, which rescued me from the jaws of death. In all that time I never knew what sickness was, unless, I may call by that name, some slight indisposition of a day or two's continuance."

The above was written at the age of eighty-three. He wrote again at the age of *ninety-five*, an "earnest exhortion" in favor of the way of living which he had adopted. His health was then perfect, and all his faculties almost as perfect as in youth. He died in his ninety-ninth year, having lived sixty years, in health, activity, vigor, cheerfulness, and uncommon happiness, upon only three quarters of a pound of food per day. His life was not very laborious, but constantly active and industrious.

Taking the hint from the above case of Cornaro, I have tried an experiment upon my own person. From my youth upwards I was as gluttonous as are most Americans ; also as omnivorous. At the age of twenty-two I commenced a reform ; but still continued greatly to over-eat. Indeed, I always supposed that my system required a very large amount of aliment, and that I could not possibly do without it ; hence I ate as much as common laborers, at least. My life was active—sometimes laborious. Without doubt I ate, and supposed I *must* eat, at least three pounds of aliment per day ; sometimes twice that amount. I was precisely one of those who are supposed to require a large amount of food. A few months since I commenced weighing my food. Eight ounces of unbolted wheat-meal undoubtedly contain as much nutriment, as twelve ounces of such food as Cornaro ate ; perhaps more. I therefore adopted eight ounces of wheaten-meal, made into unleavened bread, for my daily quantity. In the room of Cornaro's fourteen ounces of wine, I ate a moderate quantity of apples, in their natural state.

The result of the experiment thus far is most satisfactory. The amount of food is most ample. My health was never so good, nor my vigor and powers of endurance greater. My mind is more active and happy than it ever was. I think I have suffered not the least diminution of strength. I am not aware that I have decreased any in weight ; but if I have, it would prove nothing. My habits of life are not very laborious, but I have a large amount of active exercise in the open air.

On the whole, I am entirely satisfied, from investigation, observation, and, experience—and, (pardon the egotism,) I certainly think that I have studied this subject sufficiently to make my opinion worth something—that, for an ordinary man, whose life is not very laborious, but who, nevertheless, takes sufficient active or laborious exercise to keep his system in the most perfect health and vigor,—*eight ounces* of unbolted wheat-meal made into unleavened bread, together with a pound or two of apples, is a quantity of food amply sufficient for a day ; that it will abundantly nourish and support his body, and maintain him in the most perfect health and vigor, from youth to the latest old age.

Concerning the amount necessary for an active laborer, but one who does not labor *excessively*, I am not so confident ; but I cannot

believe, that under any circumstances whatever, it can be beneficial for any human being, habitually to consume more than sixteen ounces, or one pound, of wheat-meal, eaten in the way I have said, together with the proper amount of fruit, in a day. And I think that *twelve* ounces of wheat, per day, is quite enough for any ordinary laborer, and that more than this is evil. Any laborer would find, by proper experiment, that upon twelve ounces of wheat, together with a proper amount of fruit, he could perform as much labor with less fatigue, and enjoy better health and more happiness in every way, than he could by eating a larger amount. But if, after a proper experiment of several months, he should find that this quantity was not sufficient, he might increase it an ounce at a time, in the way before suggested, until it was enough. Let him, however, be certain to *know* that twelve ounces is not sufficient, before he enters upon the hazardous experiment of increasing the quantity. Enough is enough ; and more than this is evil.

The following table exhibits the relative proportion of nutriment contained in several kinds of food, according to the best chemists. Taking wheat as a standard, and assuming that eight or twelve ounces per day is the proper quantity, it will enable any one to determine what amount of any of the other articles would be the proper one :

100 parts of Rice	contain	95 Nutr. matter.
" Lentiles	"	94 "
" Peas	"	93 "
" French Beans	"	92 "
" Broad kidney Beans	"	89 "
" Wheat	"	80 to 85 "
" Barley	"	75 to 80 "
" Rye	"	70 to 75 "
" Indian Corn	"	70 to 75 "
" Butcher's Meat (average)		35 "
" Potatoes	"	25 "
" Beets	"	16 "
" Carrots	"	14 "
" Turuips, Cabbages, etc.	"	6 to 8 "

According to the above table, *eight* ounces of wheat at 80 per

cent. nutriment, would be equal to about *seven* ounces of rice, lentiles, (a kind of half pea,) peas, or beans; to about *nine* ounces of barley, rye, or Indian corn; to about *eighteen* of flesh meat, *twenty-five* of potatoes, etc. *Twelve* ounces of wheat would be equal to about *ten* of rice, lentiles, peas, or beans; *fourteen* of barley, rye, or corn; *twenty-seven* of flesh-meat; *thirty-eight* of potatoes, etc.

Since man is designed and constitutionally adapted to subsist upon *seeds and fruits*,—potatoes, beets, etc., are not strictly natural food, and therefore it would not do to take a quantity of them proportional to their degree of richness, inversely compared with wheat, the bulk would be too great. So that when they are eaten, (they should be eaten only occasionally, if at all,) we had better submit to the evil of taking a smaller amount of nutriment, than to take too large a bulk. Besides, not being perfectly natural food, or not being perfectly adapted to man's alimentary organs, they are not so readily and easily digested as seeds; hence, it would be too severe a tax upon the digestive organs, to digest a quantity sufficient to contain the amount of nutriment found in twelve, or even eight ounces of wheat. It seems to me, that from a pound to a pound and a half of potatoes, is as much as should be eaten in a day, but the truth is, that potatoes, make the best of them you possibly can, are decidedly an inferior article of food, and if we eat them at all, it should only be a meal occasionally, by way of variety. They are much superior to *flesh* for human food, but much inferior to seeds and fruits.

On the whole then, with regard to quantity, it is certain that excessive alimentation is one of the worst physical transgressions in the world; that it is the cause of more disease and suffering than almost any thing else; and that it is practiced to an enormous extent in the United States, by almost every individual. It is the grand cause of failure in an immense number of cases, where physiological reform has been attempted. No more food should be taken on any account, nor under any circumstances whatever, or for any possible reason, than is just sufficient, under proper regimen and with correct habits, fully and properly to nourish and sustain the system. Every particle taken more than this, is an evil and a curse,—destroying health and wasting life. As to the amount in ounces, probably

eight ounces of wheat made into unleavened bread, is about the proper quantity per day, for a man who takes active or laborious exercise enough, and no more than is just sufficient to keep the system in perfect health and vigor. Probably *twelve* ounces is enough for an active, robust laborer; and not more than a pound per day ever ought to be eaten by any human being, under any circumstances whatever. Other kinds of food according to their richness, as indicated by the foregoing table, and calculations or estimations.

Should any one find, after a proper trial of several months, that the above quantities are really and absolutely insufficient for him, let him gradually and cautiously increase them an ounce at a time, and at intervals of several weeks or months, guided all the time by the light of correct physiological knowledge, and controlled by reason and conscience, and not by appetite,—until they are sufficient, and no more. When any one has ascertained the proper quantity, he should abide by it as rigidly and as conscientiously as he would obey a direct mandate of God. Avoid excessive alimentation as the greatest possible physical evil!

For invalids, and people afflicted with chronic diseases, these quantities of course must be lessened, according to the nature and violence of the disease. No more should be taken than the debilitated or diseased organ or part can bear; which will frequently be barely enough to prevent actual starvation. Most diseases—all that are curable—can be cured by correct diet and regimen; and in no other way can they be safely and permanently cured. One of the most important things in this regimen, is the eating of a sufficiently small quantity of food. It is utterly hopeless for a chronic invalid who habitually eats a full amount of food for a well man, ever to try or expect to get well and remain so; it is impossible, or nearly so.

Females probably, as a general thing, require rather less food than males, but there is not much difference in this respect. Children, during the period of growth, require nearly the same amount. Old people should lessen the amount of their food, rather than increase it.

Since the above was written, nearly two years have elapsed. Continued experience, observation and reflection, have but con-

firmed the author in the views then advanced. During all that time his habits have been active, and much laborious exercise has been taken nearly every day. He has uniformly eaten only from eight to twelve ounces of unleavened bread, made from equal quantities of wheat, rye, and corn meal, or their equivalent in other food, together with the proper amount of fruit. The system is abundantly supplied with nourishment, and great vigor and power of endurance constantly maintained. If people could only realize how much they lose and suffer, from excessive alimentation, and the use of pernicious food, they would not delay reform a single day.

CHAPTER XII.

VARIETY, TIMES OF EATING, ETC.

WITH most people *variety* in food is a great object. They get "tired," or "sick," they say, of one kind, and want something else. Now this is all wrong. The appetite ought to be and might be so perfect, that one kind, or any kind of wholesome food, would relish always. It is a capricious or diseased appetite, induced by dietetic transgression, which makes people so fastidious, and so crazy after variety. If they obeyed nature's laws, they would never get "tired" or "sick" of any proper article of food, but could partake of the same dish, or of any dish, at every meal during their lives, with the most exquisite relish. It is disgusting to hear people talk about getting "sick" of wholesome and delicious articles of food! They ought to be ashamed of themselves.

But the desire for variety would not be so much to be deprecated as it is, if people would not have it all, or so much of it at the same meal. They want a dozen kinds at the same meal: this is abominable! It prevents good digestion, is pernicious to health, and defeats its own object. No digestion can be perfect and natural where so many kinds are eaten at once. The gastric juice varies in physiological character, according to the nature of the aliment which it is secreted to digest; that is, it is physiologically adapted to the digestion of the particular article for which it was secreted. Of course it is not so well adapted to the digestion of another and different substance. For instance, when we eat flesh, the juice which is secreted to digest it, is physiologically adapted to flesh, and to nothing else; hence it would not readily digest seeds or fruits. Therefore, if fruit should be freely eaten by flesh-eating animals, or by human beings long accustomed to a flesh diet, before the digestive powers had time to adapt themselves to the change of food, it would be extremely liable to "disagree" with them, and not digest

properly. After a while the gastric juice would become adapted to the fruit, when there would be no further difficulty; and then, if they were to eat a meal of flesh, that would digest more imperfectly. This is the reason why flesh-eaters find fruit to disagree with them.

This is made worse if these two substances are eaten at the same meal. In a healthy stomach, the physiological character of the gastric juice will change somewhat from one meal to another, and become in some measure adapted, physiologically, to the substance which is eaten; but it is impossible that the same secretion of gastric juice, should be at the same time equally well adapted to the digestion of flesh and fruit: therefore, if they are eaten together, neither can be digested so readily and perfectly as though one only was eaten at a time. The same principle applies to other substances.

Although the different kinds of vegetable food do not vary any where near so much in character, the one from the other, as do vegetables and flesh—and consequently eating them together would not be as bad,—yet even different kinds of seeds do vary in constitutional and alimentary character, and hence it is impossible that the same gastric secretion, should at the same time be equally well adapted, physiologically, to the digestion of several kinds at the same meal; therefore several kinds should not be eaten at once. If one kind only is eaten at a meal, the digestive fluid which is secreted will possess the most perfect physiological adaptation to the article eaten, and the digestion consequently will be the most perfect possible. But if several kinds are eaten at once, the digestive fluid will not be perfectly adapted to any of them, and digestion will therefore be less perfect.

Again, different kinds of food digest in different times, or periods of time. If two kinds are eaten, and one of which would be digested in half the time necessary for the digestion of the other, it is manifest that there can be no perfect digestion. Being intimately mixed together, one would have to be retained in the stomach too long, or else the other forced out too soon. In either case evil would result, and the health suffer. Besides, having so many kinds at a meal would, in effect, and to a great extent, defeat its own object by destroying all variety; that is its desirable parts. Every meal must be nearly like all others, hence there is no proper variety.

I do not object to variety, properly managed, but only to eating several kinds at the same meal. One kind of solid food, together with one kind of fruit, is as much as should ever be eaten at once. These may probably go together without injury ; but this is as great a variety as should be allowed at the same meal. More than this would impair and deteriorate the digestive function, and, worst of all, it would provoke to excessive alimentation,—one of the greatest evils in the world.

But we may have as much variety as we please at different meals, and all the indications of nature would seem to be in favor of the practice of subsisting upon a variety of alimentary substances.

There is an almost infinite variety in the vegetable kingdom, of which we may eat. If we choose we may have a different kind of food for every meal in the week, and still have our diet conform most strictly to the laws of our being. For instance, one meal might be wheat, another corn, a third rye, a fourth barley, a fifth beans, a sixth peas, a seventh rice, and so on ; together with a different kind of fruit each time. Nuts, etc., might furnish *rarities* as often as desired. And all this without eating dead corpses ! What omnivorous appetite could desire more than this ?

With regard to *times of eating*, several things are certain. Meals should be at regular and stated hours. All our habits should be perfectly regular, especially eating. If we eat at a certain hour each day, we soon establish a physiological habitude, and hunger, or appetite, or desire for food, comes on regularly at that hour, and at no other time. Then the stomach is in the best condition to digest food, and therefore, if thus eaten, meals will be much more perfectly and easily digested than otherwise. There should also be no eating between meals, or at too short intervals. On an average it is found to take about *four hours* completely to digest a common or ordinary meal. Nothing should, certainly, be taken into the stomach until the meal is digested, for it would of necessity greatly disturb digestion. Then the digestive organs require at least *two hours*, after digestion is completed, to rest and recover their energies. So that no food should ever be taken at shorter intervals than *six hours*.

The last meal should be eaten at least *four hours* before retiring to rest at night, in order that digestion may be accomplished, and

the stomach emptied before we lay down to sleep; otherwise digestion will greatly disturb sleep, and sleep will impair and retard digestion. We should never sit up at night longer than ten o'clock at the farthest. This would bring the last meal as early as *six* at the latest. At intervals of six hours, there would be time for but *three* meals at the most. Adopting six in the evening as a fixed point, and taking three meals a day, breakfast would fall at six in the morning, dinner and twelve, and supper at six in the evening. But it is by no means necessary to eat three times in a day; and people with impaired digestion, which is the case with nearly all Americans, should never think of it. In their case digestion is slower, on account of the debility of the digestive organs, and therefore meals should be at longer intervals; besides, debilitated organs, being more exhausted in performing their functions, require more time to rest and recover. As a general rule, the people of this country ought not to think of eating at shorter intervals than *eight* hours.

Two meals per day—at eight in the morning, and four in the afternoon—are enough for any human being under any circumstances. I eat but once a day—at eight in the morning—and find that amply sufficient; and I am fully persuaded that for me, or any other man who performs no more labor than just what is necessary to keep the system in health and vigor, it is much better to take one meal than more in a day. In the present condition of the human race, perhaps active laborers had better take two meals than one; but if the human constitution was in the normal condition, without doubt one meal a day would be enough for any individual under any circumstances whatever, and on every account better than a greater number. At present therefore, active, robust laborers had better eat, as a general rule, *two* meals per day, at eight in the morning and four in the afternoon, and no more; others had better eat but once—at eight in the morning. One strong argument in favor of so few meals, is, that it will greatly assist any one to avoid eating too much.

People think they should be *faint* if they did not eat oftener than one or two meals a day, but they are deceived. They are accustomed to take stimulating food and drink at every meal. When the stimulation is exhausted, of course they feel faint, and desire

the next meal, not to supply nourishment to the body, but stimulus to the nervous system. But on a proper diet and regimen, there is no unnatural stimulation supplied to the nervous, and consequently no reaction and prostration; hence no faintness is felt at any time. As food enough is taken at one or two meals to nourish the system for twenty-four hours, it is kept in perfect tone for the whole time; no inconvenience is experienced.

People also think they should suffer from hunger if they did not eat oftener; this is a mistake, founded on ignorance. We may train ourselves to eat just when and as often as we please; as soon as the times become habitual, hunger will return at these times and at no others. We may thus habituate ourselves to eat six times a day, or once; and we shall feel hunger accordingly. So that we may, from habit, demand three or six meals a day to satisfy us; or we may be perfectly satisfied with one.

Besides, to him who lives correctly, hunger is not that despotic, painful thing, which it is to him who takes stimulating food and drink. In the latter case, it is a powerful and painful craving or longing of the outraged and diseased nervous system for the customary stimulus; in the former, it is only the natural and healthy demand of the instincts of the body for proper nourishment. The former is a depraved, diseased, despotic passion, intolerably painful; the latter a normal, healthy, mild and pleasant desire, which is never painful or outrageous, and accommodates itself perfectly to the real wants of the system, and the habits of the person. So that a correct liver never experiences at any time that painful feeling which people commonly call hunger, even though he should go without food for two days together. Let him adopt the practice of eating one or two meals a day, according to his occupation, as above suggested, and he will never suffer from faintness, or feel painful hunger. He will feel a pleasant desire for food—no more than it is agreeable to feel—at the usual hour of taking his meal, and at no other time.

For some time past, since writing the above, I have eaten two meals per day, by way of experiment. I see no particular difference in the results, from those produced by eating a single meal; since I eat the same quantity in a day. To one who regulates the quantity of his food by the steelyards, as all should, it does not make

much difference whether he eats that quantity at one or two meals, especially if he is healthy and vigorous. An invalid, of course, must wisely regard his condition. But if a person eats enough at one meal to supply the alimentary wants of his system for twenty-four hours, it makes a vast difference with him whether he eat another meal or not. The main thing is to have the quantity right, and the times of eating regular, at fixed hours, and at sufficient intervals; whether this quantity is eaten at one or two meals is not so much matter. Everything goes to show that but one or two kinds should be eaten at the same meal. The best way would be to eat the same article for several meals in succession, and then some other, etc. Say, wheat one week, corn the next, and so on. In this way cooking for several days, or a week, might be done at once, and thus much precious time saved. It is absurd and wicked to squander time in cooking three meals a day, as is commonly done.

CHAPTER XIII.

THE EXPERIMENTAL ARGUMENT.

WE now come to consider what may be called the *experimental argument* in favor of the system of diet which has been defended in the foregoing chapters. *Experience* is, after all, the final test, by which to determine the truth of any physiological theory. A theory may look beautiful, and be defended by very specious and plausible arguments, but if it is contradicted by a true experience, it is false, notwithstanding all the previous reasoning. I say *true* experience, because many experiments are deceptive, and their apparent results *false*. For instance, an opium-eater abstains for a few days from the use of the poisonous drug, feels in every respect worse, and even *sick*, and hence concludes that opium is necessary to his welfare. This is not true experience; the apparent result is false. By continuing it a little longer the conclusion would be reversed. He would see that opium, so far from being necessary and beneficial, is useless and pernicious. So of other articles,—alcohol, tobacco, tea and coffee, etc.

We see, therefore, that temporary trials can determine nothing with regard to the truth of the dietetic theory advocated in this work. Many abandon the use of flesh, grease, etc., and adopt a correct vegetable diet, because it is recommended, without possessing much, if any, correct knowledge of the true science of human life. They continue it for a few days or weeks, perhaps over-eat enormously, or grossly transgress in some other respects, and then because they they find, or think they find themselves rather worse than better,—or because they do not immediately improve, and perhaps feel uncomfortable, they conclude that the “Graham System” is a humbug, and return to the “flesh pots” with the most undoubting conviction that a flesh diet is necessary to man;—at least to themselves: whereas, if they had persevered a while longer,

and followed a correct regimen in other respects, they would have succeeded, and found the new diet of seeds and fruits, infinitely superior in every respect.

After fully examining the dietetic history of mankind, Mr. Graham says :—" From two-thirds to three-fourths of the whole human family, in all periods of time, from the creation of the species to the present moment, have subsisted entirely, or nearly so, on vegetable food ; and always, when their alimentary supplies of this kind have been abundant and of a good quality, and their habits have been in other respects correct, they have been well nourished, and well sustained, in all the physiological interests of their nature."

"The Russian and Greek laborers, and those of many other countries, will work from twelve to sixteen hours a-day, with great power and activity and cheerfulness, and subsist on about *one pound* of coarse bread with a small bunch of garlicks, figs, raisins, apples, or some other fruit containing little nourishment. Millions of the inhabitants of India and China subsist on a few ounces of rice a-day for each individual ; and, where they are in other respects temperate and correct in their habits, they are well nourished, and athletic and active."

Concerning the effect of diet upon the bodily symmetry and beauty, after a very full examination on the subject, and the production of abundant and ample testimony, he says : " We find that, taking all flesh-eating tribes and nations together, though some of them, whose circumstances and habits are most favorable to the physiological interest of the human constitution, are comparatively large and well-formed, yet, as a general average they are a comparatively small and ill-formed race ; and even the very best of them never approach to anything like complete and perfect bodily symmetry. And we find that, taking all vegetable-eating nations together, though many of them, from their excessive use of narcotics, and from other bad habits and unfavorable circumstances, are comparatively small and ill-formed, yet, as a general average, they are a larger and much better formed race than the flesh-eaters ; and it is only among those tribes and nations whose general habits are simple and temperate, and who subsist on a pure vegetable and water diet, that the most perfect specimens of human symmetry and beauty are found ; and here they are very numerous, and deformity is very rare."

I cannot make long extracts, but must refer the reader to the work on the "Science of Human Life," above quoted for all the testimony he can ask on the several subjects treated upon. Concerning the comparative effects of different kinds of food with regard to suppleness, activity, agility, vigor, strength, power, ability to endure protracted efforts, etc., suffice it to say that Mr. Graham, by producing an amount of evidence perfectly overwhelming, completely proves that plain farinaceous vegetable food is immensely superior in this respect to flesh. He concludes by saying, that experience renders it perfectly certain that, all other things being precisely equal, they, who, under a correct general regimen, subsist on a diet of pure and well-chosen vegetable food and pure water, possess more muscular power, and are able to perform more labor in a given time, and to labor much longer without rest and without weariness, than they who subsist either on animal food exclusively, or on a mixed diet of vegetable and animal food."

Thousands of the most authentic and well attested facts conclusively prove, that abstinence from flesh, and other injurious substances, and subsistence upon a proper vegetable food, together with a correct general regimen, will, more than anything else, enable the human system to resist morbid causes and injurious influences, and maintain health under almost any circumstances. Those people, in all parts of the world, who live measurably correct, are almost entirely free from disease. But whenever flesh and fat are freely eaten, diseases are numerous.

During the prevalence of the cholera in New York, in 1832, not a single "Grahamite," and they were quite numerous, died of the epidemic. Only two or three were slightly attacked, and they had been decidedly imprudent. Experience has shown that correct vegetable livers can visit the most sickly climates, and even remain in the most sickly parts of Africa for a long time, with the most perfect impunity. Indeed, by following a correct diet and regimen, the system is rendered so pure and vigorous that it will successfully resist all ordinary injurious external influences; and sickly climates, which are regarded with so much horror, will be unable to make us sick. But when, by the free dietetic use of flesh, grease, etc., the body is filled with corruption, the blood just ready to putrefy, and the resisting powers of the system are almost destroyed,—then if

any injurious external influences is brought to bear upon us, such as miasma, contagion, or climate influence, active disease will almost inevitably be induced, and severe sickness follow.

The Orphan Asylum of Albany, N. Y., was founded in December, 1829. The children in it numbered from seventy to a hundred and thirty. Great attention was paid to the general regimen of the children, as to bathing, personal cleanliness, clothing, air, exercise, etc. Their diet consisted of fine bread, rice, Indian puddings, potatoes, and other vegetables, and fruit, with milk; and to these was added flesh, or flesh-soup once a-day. In September, 1833, a change was commenced in their diet, and in three months they were brought fully into what is popularly called "the Graham system of living." In August, 1836, the following account of the Institution was published. We quote from the work before mentioned.

"It is now more than six years since this Institution was established, and about three since the new regimen was adopted,—so that the time has been nearly equally divided between the regimen which embraced animal food and that which excluded it. From the commencement to the present time, new inmates have been occasionally received into the Asylum from the almshouse and from the city, and most of these children have been in very poor health, and some of them exceedingly diseased. During the whole period, also, children have, from time to time, been placed out in families, when they had arrived at a proper age.

"The average number of children in the asylum, has been about eighty. Under the first regimen they were washed all over once in two or three weeks; under the new regimen they have been washed all over every morning, in the summer, and three times a-week in the winter. During the first three years, or while the first regimen was observed, from four to six children were continually upon the sick list in the nursery, and a nurse constantly employed to take care of them, and sometimes the number of the sick was greatly increased, and one or two assistant nurses necessary. The attendance of a physician was found necessary once, twice, and three times a-week, uniformly, and deaths were frequent. In the summer of 1832, the epidemic cholera made its appearance among the children of the Asylum, and carried off six or eight of them. And let it be observed, that during the cholera season, the

proportion of flesh and flesh soups was considerably increased in the diet of the children. During the whole period of the first three years, there were twenty-eight deaths.

“The new regimen was introduced gradually at the close of 1833. While this change was taking place, a child was received into the Asylum, diseased with scald head. This disease, when once introduced into such an institution, is rarely arrested till every inmate has had it, and it sometimes takes years to expel it; but in this instance, it was so promptly and vigorously met by a salutary regimen, that it was wholly arrested and driven from the institution before it had extended to half of the children. The nursery was soon entirely vacated and the services of the nurse and physician no longer needed,—and for more than two years following, no case of death nor of sickness took place in the Asylum. Within the last twelve months there have been three deaths in the institution. One of them was an idiot child, received some months before from the almshouse; this child was of extremely imperfect organization, and low order of vitality; its bones were soft and flexible, and in all respects, it was so miserable a mass of organic existence, when brought to the Asylum, that no one expected it would long survive. It however continued to live on for several months, and then died suddenly. The second case was also an idiot child, received from the almshouse in an a bad state of disease, and died soon after it was brought to the Asylum. The third case was a child which also came from the almshouse in an advanced stage of disease, and died very soon after it was received into the Asylum. At the same time, two or three other children were received from the almshouse, wretchedly diseased, but they have been restored to health.

“We see, therefore, that excepting the scald head brought into the Asylum at the very commencement of the new regimen, and the few cases of disease imported from the almshouse within the last year; and excepting the death of the two idiots and one other child, all of which came to the institution with the grasp of death upon them, there has been no case of death nor of disease in the Asylum during the last three years, or since the new regimen has been adopted. And, therefore, it is, speaking truth most strictly, to say that not a single case of death, nor of disease has taken place in the institution within the last three years, from causes existing in

the Asylum : on the contrary, (to use the language of the Report of the Board of Managers.)—‘under this system of dietetics, the health of the children has not only been preserved, but those who came to the Asylum sickly and weak, have become healthy and strong, and greatly increased in activity, in cheerfulness, and in happiness.’ Miss Grimwood, the superintendent, and Miss Clark, the principal teacher, state that since the new regimen has been fully adopted, there has been a remarkable increase of health, strength, activity, vivacity, cheerfulness, and contentment among the children. Indeed, they appear uniformly, to be perfectly healthy and happy, and the strength and activity which they exhibit are truly surprising. Miss Grimwood and Miss Clark also state that the change in the temper and disposition of the children, since they have adopted their new regimen, is very great ; they have become less turbulent, and irritable, and peevish, and discontented, and far more manageable, and gentle, and peaceable, and kind to each other ; and this, say the superintendents, is not the result of a want of spirit and energy, but of a healthy state of the whole system—a general serenity—an absence of morbid irritation. ‘The effect of the new regimen on the intellectual powers of the children,’ says Miss Clark, ‘has been too obvious and too striking to be doubted. There has been a great increase in their mental activity and power :—the quickness and acumen of their perception, the vigor of their apprehension, the discriminating energy of their comprehension, and the power of their retention, daily astonish me !’ ”

The subsequent history of the institution, until June, 1838, which is as late as I am informed on the subject, continued to demonstrate more clearly and strongly, if possible, the superiority of the diet which this work recommends over the common way of living, in preserving and maintaining health.

The experience of the author is in point. In the autumn of 1841, at the age of twenty-two, having been an invalid for some years, being afflicted with chronic dyspepsy, he resolved to adopt the “Graham System.” He had before tried all kinds of medicine without success, and had settled down into the conviction that there was no help for him, and that he must soon die. During the winter he was teaching district school, and could not follow the system

very perfectly. In the spring of 1842, he found himself very little, if any, improved. About the first of April he commenced working on a farm, and rigidly adhered to the following regimen. Rose at 5 o'clock, and washed the whole surface thoroughly in cold water. At six eat five ounces of corn meal made into unleavened bread; the same at twelve, and also at six at night. This was varied by an occasional meal of potatoes. Drank nothing but cold water two or three hours after meal, and but little of that. Nothing else entered his stomach, except a few times a little milk. Labored through the day, and retired at nine o'clock.

When he commenced he was feeble, debilitated and emaciated to the last degree. For years before he had been almost constantly subjected to diseased pain. Every summer he had a severe fit of sickness, of several weeks' continuance, which brought him to the verge of the grave. The rest of the time, although he tried to labor, such was his debility and diseased condition that every effort was torture. Every mental action or emotion gave pain rather than pleasure. The world was a gloomy prison, and life a curse! For some time after adopting the above regimen the diseased action continued. Digestion was utterly prostrated. After eating the meal, consisting, as we said before, of *five ounces* of bread, distressing heart-burn would continue for some hours; acidity, etc. followed. The appetite was so outrageous and tormenting, that it was only by the most powerful moral effort that he was enabled to control it, and avoid repletion. His emaciation soon became extreme, until he appeared almost like a skeleton, and his friends, with real alarm, insisted that he was starving himself to death. But his faith continued as firm as a mountain. Even when the most emaciated and debilitated, he was himself surprised at the comparative ease with which he labored, and the powers of endurance which he possessed. When poorest and weakest he could and did labor, (not at the hardest kinds of farm work of course,) for ten or twelve hours a day, and felt but very little fatigue at night. Sleep was undisturbed and refreshing, and more than restored the vigor of the previous morning. Diseased pain gradually grew less and less.

After a few months all the diseased symptoms began to mitigate. Digestion improved, and strength and weight very gradually, but

constantly, increased. Through the season of *hoeing* he was able to do as much as he commonly had. Through haying he could do more than ever before ; although he was still weaker than ordinary laborers. But so rapidly did he improve, that during the season of harvesting he was equal to the best. He worked in company with some of the ablest laborers in town ; was able to do as much as any of them, at anything, and with much less fatigue. After laboring all day in the harvest field, or at the threshing-machine, and more hours than any of them, he felt scarcely any fatigue, while they were excessively fatigued.—In short, at the end of eight months, he found himself free from disease, which had not been the case before since his remembrance ; in better strength and condition than he had ever been before ; and possessed of uncommon vigor and power of endurance. He possessed more elasticity and youthfulness of feeling than falls to the lot of one flesh-eater in an hundred, of his age and circumstances. The mind was active, and all the mental operations pleasant and happy. The world had now become a palace, and life a blessing !

The following winter he taught district school, and in the spring commenced studying for the ministry. The next winter he also taught school, and since that has devoted himself to his profession. For some years he adhered pretty strictly to his diet and regimen, although, in the matter of exercise and study, he greatly transgressed,—at least at times. During this time he was absolutely free from disease and diseased pain, never having so much as the headache,—although for years before he had been almost constantly subject to it. Although he had less strength than when he labored, yet his powers of endurance were astonishing. After being confined in the study, with very little exercise for days or weeks, he would start off and walk ten or *twenty* miles in a few hours, carrying a heavy valise, without feeling scarcely the least fatigue ; whereas, always before, the walking of a few miles was extremely painful and excessively fatiguing. No man could be in a more perfect physical condition.

At length, after about three years and a half, he removed to another part of the state, among strangers, and settled with a society as a regular preacher. Causes, which it is not necessary to mention, induced him gradually to relax the strictness of his dietetic

rules, although he never returned to the use of flesh, or tea and coffee. He soon came to eat too large a quantity, too many kinds at once, and many things pernicious to health:—such as pies, cakes, puddings, cheese, etc. The result which ought to have been expected, soon followed; he had a severe attack of the old disease, in a few months. This was in the spring of 1846; just four years after he first fully adopted the reformed system. He at once returned to a proper diet, and rigidly adhered to it. As before, after becoming extremely emaciated, in a few months he gradually recovered, and soon became well and vigorous, and strong as ever. From that time to the present, (Feb. 1849,) he has been free from all kinds of disease, and uniformly possessed the greatest vigor and power of endurance. During this time he has been acquainted with great numbers of people, but never knew one so free from disease as himself. This is the more remarkable, inasmuch as he had always been very much diseased before he reformed, and commenced the experiment, as it were, with a broken down constitution. Besides, he has never been situated, until recently, so that he could have things as he wished, and has, therefore, not always obeyed the laws of health as perfectly as he does now.

Thousands of experiments similar to the above have been tried in this country within the last few years, and the result has uniformly been the same. No instance of failure can be found where the person understood the true laws of health, and endeavored honestly to obey them. Many invalids, it is true, have abandoned flesh-meat, and perhaps some other things, but continued to eat increased and excessive quantities of other articles, more pernicious to health perhaps than even flesh; and then, because they grew worse rather than better, as they ought to have anticipated, they turned round and cursed the reformed system. The truth is, they transgressed more than before, and therefore grew worse and worse. But in every single instance where an invalid, or anybody else, has adopted and consistently and perseveringly continued the system advocated in this work, there has been a marked and decided improvement in every respect,—most especially in health.

I might prove by an extensive appeal to facts, that the system of diet which is advocated in this work, is much more conducive to *longevity* than the common way of living. “I might narrate the case

of Robert Bowman, who, subsisting wholly on a vegetable and milk diet of the plainest and simplest kind, retained his bodily vigor and mental and moral powers to a very great age;—who, when a hundred years old, joined the chase and ran after the hounds: and, at the age of a hundred and twelve, assisted his family in the harvest field. Or the case of the French peasant, who, subsisting on coarse, brown bread, baked semi-annually, and goat's milk, and breathing the pure air of the mountains on the borders of Switzerland, retained all his faculties and powers to the age of a hundred and fifteen, with uninterrupted health, and remarkable vigor and activity; and, at the age of a hundred and twenty, was carried to Paris and presented to the king; and there, by a change of diet and other circumstances, rapidly declined for two or three years, and died. Or the case of Thomas Parr, of England, who subsisted almost all his life on bread, milk, old cheese and whey, and who, at the age of an hundred and thirty, was able to perform every kind of work of a laborer,—who, when a hundred and forty years old, manifested little of the failing of age, and who was removed to London, where an entire change took place in his mode of living, and he soon died at the age of one hundred and fifty-two. Yet, judging from the condition in which all his viscera were found on examination after death, it was the opinion of Dr. Harvey that he might have lived till he was two hundred years old, had he remained in his native country air, and continued his regular, plain, simple and temperate habits.—Or I might narrate the case of Henry Jenkins, of England, who, subsisting much in the same manner as Parr did, retained his faculties and powers in great vigor, for nearly a century and a half, and, with little abatement, carried them up to the age of a hundred and sixty-nine: or the case of Demetrius Crabaski, who was recently living near Polask, on the frontiers of Lithuania, at the age of one hundred and sixty-eight.” But individual cases would not prove much, at least to the minds of those prejudiced against the system.

The experience of nations is more conclusive. The Russian peasantry live on a coarse and scanty vegetable diet, and besides being among the most perfect physical men in the world, are famed for longevity. Thousands of them live to the age of a hundred to one hundred and fifty (100 to 150.) Some of the Arab tribes of the

desert subsist almost entirely upon the milk of the camel, and live to an immense age. Captain Riley thinks he saw them three hundred years old, and many strong and active at the age of two hundred. In short, it is always among plain and simple vegetable livers, that we find instances of remarkable longevity. It is impossible for a people living as do a majority of Americans, to live to a very great age. Great physiological transgression shortens life.

Says the writer whom we have so often quoted,—“There are two grand facts, in relation to this matter, worthy of all consideration. The one is, that when individuals who have lived to old age on simple vegetable food, begin in advanced age to partake of animal food, the infirmities of age always increase upon them with a manifestly increased rapidity; and they rarely long survive the change. The other is, that when individuals have lived to sixty or seventy years of age and upwards, on a mixed diet of vegetable and animal food, and begin to feel much of the decrepitude of old age, and to experience many of its infirmities, if, before they are completely broken down and brought upon their death beds, they adopt a well chosen vegetable diet, and good general regimen, they always greatly improve in health,—throw off many, if not most or all their infirmities, and retrieve much of the activity and vivacity of earlier life. I have witnessed this fact in numerous instances.”

Experience also proves, although we cannot stop to produce the testimony, that a well chosen vegetable diet, such as we have recommended, is much more favorable than a mixed diet to prolificness, power to endure cold, activity and acuteness of the special senses, and intellectual and moral activity and power. In fine, all experience, when properly understood, makes decidedly and strongly in favor of the system which this work defends. Let any one honestly and understandingly try it for a single year, and see if he does not find this true. If not, come out and refute and silence me, and I will hold my peace.

Dr. Alcott remarks, that “more than half of the 800,000,000 of human beings which inhabit our globe live on vegetables; or, if they get meat at all, it is so rarely that it can hardly have any effect on their structure or character. Out of Europe and the United States,—I might even say, out of the latter—the use of

animal food is either confined to a few meagre, weak, timid nations, like the Esquimaux, the Greenlanders, the Laplanders, the Kam-schatdales, the Ostacs, and the natives of Siberia and Terra del Fuego ; or those wealthier classes, or individuals of every country, who are able to range lawlessly over the Creator's domains, and select, for their tables, whatever fancy or fashion, or a capricious appetite may dictate, or physical power afford them."

The Greeks and Romans, in the days of their greatest glory and power, were vegetable eaters : so were the ancient Egyptians and Persians. When they commenced flesh eating, empire departed from them. The ancient Jews lived mainly upon vegetables. The Irish, Scotch, Italian, German, and other European peasantry, live almost entirely upon the products of the vegetable kingdom. " Yet, where shall we look for finer specimens of bodily health, strength and vigor, than in these very countries ? The females especially,—where shall we look for their equals ?" But the Esquimaux, New Hollanders, etc., live mainly on flesh, and have for generations : what is their physical condition ?

But we need not argue a question further, which every one can so easily determine for himself. A proper experiment of one year, will set the matter at rest in the mind of any one. Will you not do as much as this ? It certainly cannot harm you, and we claim that it will be an immense benefit. Will you not pay attention enough to our earnest appeal, to induce you to try the experiment one short year ? Why not ?

But do not enter upon the trial ignorantly, or rashly. First, thoroughly inform yourself in the true principles of the science of human life. Then abandon your bad habits, and adopt correct ones, gradually, and as your system can bear it. Very sudden changes, especially for debilitated persons, are not to be recommended : the shock is sometimes so violent as to produce injury. Leave off, say *narcotics* first ; then, after a sufficient interval, leave off *grease* ; next *flesh* ; and so forth. In this way you may soon come upon the true regimen, without material inconvenience. But if you are robust, and possess a fair share of moral courage, you can adopt the change at once without evil.

After you have fully brought yourself upon the new regimen, faithfully and honestly pursue it for a year, and then if you are not

convinced of its superiority to the old one, nothing which can be *said* will be likely to change your mind. You will than be entitled to quote your experience against it, as far as it goes. But do not condemn before you try. The experience of the world, and of all ages, is in our favor: the only way to refute the argument is to present experience—true experience—against it.

To invalids I would say, you need not be diseased. It is the most consummate folly to be sick, and ought to be a disgrace. Try the experiment which we recommend, and you will soon be well, or at least much better. You may as well be thus cured as others.

We have room but for one instance.—Rev. David Pickering and wife, of West Aurora, Erie co., New-York, were induced to try the system advocated in this work. They commenced, gradually, during the summer of 1848. Mr. P. was sixty years old; Mrs. P. was a few years younger. He had been afflicted with erysipelas forty years, and then had thirty running sores upon his body, which could not be healed. She had been subject to one or two severe attacks of nervous sick-headache every week, from her infancy up; and considered it constitutional. Soon after commencing physiological reform, all the diseased symptoms began rapidly to mitigate, and a general improvement to take place. Soon the fire of disease was extinguished, the ulcers were healed, and the headache subsided as if by magic. At the time of this writing, (Feb. 1851,) they are freer from disease than most people at twenty. Youth and youthful feelings have returned upon them in a remarkable degree. Happiness is increased ten-fold. They assure me that they are now far happier than they ever were before in their lives; that they feel young again; and that they have experienced a complete physical regeneration: as they expressed it, “been made over new!” They are most enthusiastic in their admiration of the new system, and in their thankfulness for having been permitted to become acquainted with it. They particularly requested me to urge it upon the attention of all, in this work, in the most earnest manner.

In the face of such examples and testimony, if invalids will not so much as *try* the only possible method of complete and permanent cure, they deserve to suffer their pains and aches; they richly merit all their misery,—let them not complain. If a person will not learn wisdom, he must die in his folly: and nobody ought to pity him.

When he writhes and groans under his self-inflicted torture, he ought to be reminded, that it is but the just penalty for his own sin, folly, and perversity. God is just and merciful. The suffering is designed to lead the transgressor to physiological repentance. But if he will not repent, he shall be miserably destroyed in the midst of his years, and die as a fool dieth!

CHAPTER XIV.

ADVANTAGES OF THE REFORM SYSTEM.

WE now come to consider the *advantages* of the Reform System of dietetics, or the *inducements to reform*. They will be found to be many and various, and of immense consequence: some of the most important only will be mentioned. We shall be as brief as possible.

First, *economy*. This is a legitimate consideration to advance in favor of a system. It is a Christian virtue. "Gather up the fragments that nothing be lost," was a command of Christ. Prodigality is a vice. *Meanness* is to be despised, but *economy* is an institute of nature. They are to be carefully distinguished. Every department of creation is constructed according to the strictest principles of economy. Nothing is allowed to be wasted. Nature is *generous*, but she is no *spendthrift*. She is the farthest possible from being a *miser*, but she is quite as far from being a *prodigal*. All her provisions, for all her purposes, are ample, but none are wasted. But it is enough for our purpose that the legitimate function of *acquisitiveness* is opposed to prodigality, and in favor of economy. This settles the question. It is *sinful* to unnecessarily squander a single mill. We should expend with a liberal hand all that is necessary, or all that we are able, to supply our legitimate and necessary wants; in ministering to our rational desires; in furnishing intellectual and moral food for our minds, and the minds of those dependent upon us; in contributing to the necessities and wants of our fellow men;—in short, for every laudable and noble object. But let us strictly guard against wasting a cent.

Compare the relative expense of different articles of food. *Flesh* usually costs from six to ten or twelve cents per pound; say *eight* cents is an average, which is not above the mark. *Wheat* commonly costs less than *two* cents per pound—say *two*. *Rye, corn,*

and *barley*, about *one*, etc. As shown in chapter eleven, one pound of wheat is equal in nutriment, to nearly *two and a half* of flesh ; one of rye, corn, or barley, to about two of flesh, etc. According to this, a flesh diet would be *ten times* as expensive as one of wheat, and nearly *twenty* times as expensive as one of corn or rye. But in point of fact, the real difference would be greater still. Flesh, being highly stimulating and unnatural food, will overwork the vital economy, and hence more nutriment will be required to sustain it. It will stimulate the appetite, (inflammation) and almost necessarily make men *gluttonous*. Flesh-eating and gluttony are almost synonymous. One pound of wheat per day is more than enough to sustain any laborer ; if he lived on flesh entirely, it would be necessary for him to eat from three to five pounds ; the first would cost *two cents*,—the last *thirty-two* ; a difference of *sixteen hundred per cent.* If only a part of the food was flesh, the difference would be in proportion to the quantity used. If *half*, the difference would be *eight hundred per cent.*, etc. No doubt the food of Americans, on an average, has this proportion of flesh, at least, therefore, flesh-eating alone makes it *eight times* as expensive as it need be. This is an item worth considering.

But this is not the worst. Tea and coffee, tobacco, salt, pepper, and spice, and even fat and butter,—so far from possessing any nutriment in themselves, actually render the consumption of a larger amount of other food necessary ; so that the whole amount of their cost is wasted, and something more. I heard a lady say, the other day, that she alone drank at the rate of one pound and a half of tea per month, costing fifty cents per pound, and yet she did not think herself extravagant. This would cost *nine dollars* a year ; but thousands drink tea and coffee to more than this amount. Many eat a pound of butter a-week ; this would cost more than *six dollars* a-year : some consume three times this amount. The cost of cheese, sugar, etc., to some families, is enormous. The use of flour rather than unbolted meal is a great waste. A bushel of wheat will make *sixty pounds* of meal, and only *forty* of flour ; and a pound of flour is worth much less for food than one of meal.

Dr. H. L. B. Lewis, of New York, recently published a small tract containing "Instructions for making unfermented bread," from which we make the following extract :

“In corroboration of the value of *brown* bread, Professor Johnson, of the University of Durham, England, has subjected the meal and flour of wheat to chemical analyses, according to which, at the lowest estimate, the flour of wheat contains twenty-two per cent. less of the staminal principles of nutrition than the entire meal (flour unbolted); and, if to this is added the smallest allowance for the matter destroyed by *fermentation*, we shall be under the mark in saying, that *fermented* flour bread contains twenty-five per cent. less of the nutritious ingredients than unfermented meal bread. This loss in quality, together with the loss in quantity, furnishes data for a correct estimate of the relative value of the two as articles of diet. Hence, it appears, *for every seventy-five loaves of fermented flour bread, we might possess one hundred of unfermented meal bread; and in every three of these last, at least as much nourishment as is contained in four of the other.*”

According to the above, one bushel of wheat, unbolted, is worth nearly as much for food as *two* bolted, which is probably near the mark. *Half* is therefore wasted by bolting and fermentation. The use of sugar adds scarcely anything to the value of food, but greatly enhances its cost. But we need not particularize farther. Estimate for yourselves the economy of this system as compared with the common way of living. If you lived on wheat, and ate twelve ounces a-day, (which is as much, on an average, as one individual ought to eat,) it would cost you four dollars and a half (\$4,50) a-year. You might need ten bushels of apples, which would, perhaps, cost two dollars and a half (\$2,50). This would be seven dollars (\$7,00) a-year. Most other kinds of proper food, (see chap. ix.) would be less expensive. *Five to seven dollars* is as much as a year's food need to cost, or ought to cost. If you can afford a few nuts, fruits, etc., extra, very well; but if you are poor you need expend but seven dollars, at most, for each individual's food for a year. Provision for a family of six, a year, would thus cost less than fifty dollars.

But according to the present system, food for *one individual* would cost at least fifty dollars, and, as many families live, it would cost twice or thrice that amount. For a family of six, it would cost from two to six or eight hundred dollars. Is not this an item worth considering?

I know there are many who will *sneer* at this, who are themselves perhaps, as miserly as *Shylock* in ministering to the higher and holier faculties of human nature, and call me parsimonious or *mean*. Let fools sneer, but wise men will consider what I say. And let none deem this subject unimportant. Economy is a great law of nature, and if we do not practice it, we put ourselves in antagonism to the great scheme of things in which we exist. Nations have fallen, urged on to ruin by the vice of *prodigality*. It was not the Northern barbarians who destroyed Rome, but the prodigality and concomitant vices of her own people. Beloved America is fast treading in her footsteps. Prodigal waste has already become rampant in all parts of our land. Ruin will follow in its wake; unless national repentance and reform disperse the portentous thunder cloud now looming over our country. Otherwise the lightnings of retribution will not be spared. Think of these things.

It is not because I would recommend the hoarding of *money*, that I urge the adoption of the reform system because of its economy; but because I would deliver my fellow men from intolerable burdens. Free as Americans boast they are, and *really* are, in many respects, tens of thousands of them are bowed down under such crushing burdens:—To use a homely but expressive phrase, “their noses are at the grindstone all their lives.” They are obliged to labor excessively, and yet remain poor. Some, I know, are wealthy—for those this paragraph is not written—but the majority have to “earn their bread by the sweat of their brows.” Labor is the proper condition of man, but nothing is more wearing and destructive to happiness and life than *excessive* labor. The necessity for this is one of the great evils of which Americans complain. They complain that it is breaking them down, and making them prematurely old, and destroying their happiness; that they are forced to work themselves to *death*.

Whatever else may contribute to subject our people to this hard necessity, it cannot be denied that the present expensive system of dietetics bears an important share. Procuring food and drink undoubtedly absorbs half the time and labor of the people of this country. This can be mostly saved, and of course the burdens of laboring people diminished in the same proportion—one half.

But look at the subject in another point of view. Phrenology is

now an established science. According to that, there are forty or more primitive faculties of the mind. All are important and valuable if used in accordance with the designs of their nature. If perverted they become curses. But some are more important than others: that is, the *functions* of some are higher and nobler than others. The use of some faculties gives a greater amount and a higher degree of happiness than others. Some we have in common with the inferior animals; and others, of a higher and nobler nature, in common with angels. Nobody will deny these premises. They are certain.

It is evident that we ought to exercise, that is, *use* the higher faculties more than the lower, and the highest most of all. Those which man alone possesses, or those which he has in common with angels and archangels, ought certainly to occupy more of his time and attention than those which he has in common with the brutes that perish. But the practice of the majority of the men and women of this country, to say nothing of any others, is the reverse of this. They use their animal faculties more than their intellectual and moral. In fact, they spend the major part of their time in ministering to their animal appetites and passions, and leave their higher powers to take care of themselves. Such might almost as well have been made *animals* as men. There are but few indeed who are not obnoxious to the charge, (and it is a serious one), of spending more time upon, and paying more attention to, the animal faculties of their minds, than they do upon the intellectual, moral and spiritual. Say what you will, the world is basely, disgracefully sunk in sensuality; literally *wallowing* in it.

We are so constituted that a certain amount of food is necessary to our subsistence, and *alimentiveness* was given to make us desire and relish it. If we use it exactly in accordance with the design of its nature, we shall eat just the amount of food which is necessary to supply the alimentary wants of our systems, and no more; and just the kind which is best adapted to our natures, and no other. If we eat any which is not adapted to our constitutional natures, because we like it,—or if we eat more than we need even of the best kinds, because we *love to eat*,—we are indulging in one of the worst, and to a refined mind, most *disgusting* forms of *sensuality*. In short, if we use *alimentiveness*, or its natural manifestation, eat-

ing and drinking, for the purpose of *sensual gratification or enjoyment*, instead of the purpose for which it was designed, we desert the dignity of our high station, and disgrace human nature. Yet who is there that does not do this, more or less? Look over our country. How entirely given up are its people to this form of sensuality! It is enough to make the enlightened philanthropist weep tears of blood! I am almost forced to drop my pen in despair, exclaiming with the prophet, "Ephraim is joined to his idols, let him alone!" But duty impels me to speak. Perhaps I may be the means of breaking the chains for one miserable captive. If so, I shall be abundantly repaid. God grant that it may be so unto many.

Think how much time and attention are bestowed by the people upon the gratification of this one passion; of the time, worse than squandered, upon the preparation of the countless number of dishes beneath which our tables groan; and of the time and energy necessary to earn the expense which they incur. It is within bounds to say that more than half the time and energy of the people of this country are devoted, directly or indirectly, to the procuring, and preparing, and using the means to gratify this one animal passion. Is it not a disgrace to humanity? We have *forty* primitive faculties of mind, almost all of them higher and nobler than this one, and yet bestow half, or more of our time upon the gratification of this, leaving the others in a great measure to take care of themselves. O shame, where is thy blush! In the name of heaven are we *swine* or *men*? If men, why not act like men?

On the new system how much time would it take to supply ourselves with food? A mere moiety of our lives: the rest might be redeemed for a nobler purpose. We have seen, that on an average, seven, and even *five* dollars is enough to supply an individual with an abundance of the best and most delicious food for a year. How long would it take to earn *five dollars*? Or even five dollars each, for every member of your family? And this would last you a whole year. More than this is evil—is unpardonable sensuality!—As to the time necessary in preparing it, a lady could do the cooking for a large family for a week, in a few hours; and then ten or fifteen minutes a day would prepare her meals, and do up her work. Now, it takes females half their time to do this, and servants' help besides. Think of this, O ye sensualists! How much precious time are you

wasting for a most miserable purpose—the gratification of a swinish appetite. Are you not ashamed to make yourselves so *animal*? To *wallow* in sensuality? To squander so much time in gratifying a perverted and depraved appetite, when you have so many noble powers and angelic faculties demanding your time and attention? For shame! If you are *men*, act like men. If—but I dare not write as strongly as I feel.

But says one, I want to live while I live. I would as soon die, as live as you recommend. I had rather be sick than deny myself all these good things. I had rather spend half, or even three-fourths of my time in procuring and preparing my food, than to live on bread and apples. Shame upon any person who will thus unblushingly confess himself, in the sight of heaven and before men, a slave to sensuality and passion! *Live while you live!* True, but is living the life of a swine, only to gratify your lust for food, worthy of a human being? Especially of civilized and Christian man? If this is the principal object of your living the sooner you die the better. What a pity you had not been made an animal!

Again, reform in this matter would emancipate our women from the slavery of the kitchen. This is an important point. They are now in the most onerous bondage. I can never think on this subject, without being moved to indignation by the savage thralldom to which the women of America, (to say nothing of any other part of the world), are subjected by the laws and customs of fashionable society. When I say *fashionable society*, I do not mean to confine the term to a little knot of *exclusives* in some city or large village, to which it is usually applied, but to extend it to the body of the community, which blindly follows the absurd and pernicious customs imposed upon it by ignorance, pride or passion. Talk of civilization! the blessings of freedom! the evils of negro slavery! the miserable condition of Mohanmedan women! Look at the condition of unremitting toil to which hundreds of thousands of the females of our country are reduced, and say if the term *slavery* is not a proper one by which to designate it. No rest, no leisure, no respite from the rising to the setting of the sun; nay, from earliest dawn to near midnight does her period of toil frequently extend!

The way things are now managed, among laboring people, as soon as a female is married her freedom is at an end forever. She

may bid adieu to all thoughts of leisure ; and, as to her having any opportunity for mental cultivation, the possibility of it is hardly conceived. She must spend her days in an eternal round of toil ; and then if she does not always meet her husband with a smile, and assist him to bear *his* trials, she is severely lectured by every declaimer and " penny-a-liner " in the land. This is outrageous. By the absurd customs of fashionable life, tens of thousands of Columbia's fair and gentle daughters, are subjected to the excessive and unremitting toil incident to a state of the most abject slavery, without leisure granted for any intellectual pursuits, or hardly time to give the necessary repose to the wearied frame. This is one of the wickedest and most unpardonable sins of which society is guilty ; and when I speak of it, I am inclined to denounce the customs which impose this iron servitude in the most unsparing terms.

But I need not enlarge, for the evil is generally admitted and deplored. True, the rich may escape it, and sometimes *do* escape it ; but I write mainly for the benefit of those who, like myself, have to labor for their livelihood. This class constitutes the great body of our people. Now the evil of which we speak, can be avoided even by *them* better than not. Do you ask how ? I answer, if you wish to avoid the misery and slavery imposed by the useless and pernicious customs of society, abandon those customs. Then you are free, and nothing to hinder your being happy.

Following the fashions in *dress* is usually referred to as causing a great waste of time and money, and a great deal of useless toil, care and suffering. This is all true. But the evil of following the common dietetic habits of this country is ten times worse in every point of view. This is the greatest curse to which our nation is subject ; greater than ever came upon Egypt, or than all her ten plagues put together. It is a moral canker worm, eating out the physical and spiritual life of the people, and making us a race of physical and moral invalids, lamentable to behold ! It inflicts half the poverty and excessive labor, and nearly all the diseases and premature deaths which afflict our people ; and, worst of all, it subjects our females to nearly all the drudgery and slavery of the kitchen ; it imposes upon multitudes the necessity of continuing ignorant and wretched.

Let any one make the calculation, how much time and labor is

expended by a lady who performs her own household duties, in preparing the daily food for her family during a year, and he will not be surprised that housekeepers are necessarily subjected to a life of hopeless toil. Reckon up the time and labor necessarily employed in making the cakes, pies, puddings, custards, condiments, sauces, pickles, etc.; in compounding the sweetmeats; in preparing tea, coffee, and other kinds of artificial drinks; in boiling, roasting, baking or frying all kinds of meats, and in every form, to say nothing of the preparing and dressing them, chopping mince and sausage meat, etc.; in making butter and cheese; in preparing soups, pot-pies, biscuits, dumplings, and a thousand and one other dishes with which our perverted tastes are gratified, and our health and happiness destroyed. Consider that all, or most of these, are to be provided and brought forward every day, and three times a-day, and you will have some idea of the amount of labor required to perform it. It is a fact that almost every meal must consist, (according to popular views), of ten to twenty or more kinds of food, each one requiring immense labor to prepare it. Are you incredulous? Then let us count them up. There must be meat, (frequently, several kinds at once), potatoes, bread, tea or coffee, or both, butter, cheese, cake, pie, (probably several kinds of the last two), sweetmeats of one or two kinds, sauce, pickles, etc. Here we have *ten kinds*, and we have only described the plainest meal which is considered decent. Frequently this number is doubled and trebled.

If this labor (and expense) could be by any means got rid of would it not free our women from a grievous burden, and be a great blessing? And it can be, for it is all useless, and worse than useless. Most of the time, labor and expense employed in preparing food, is so far from being necessary that it is employed in the most gross and wicked transgression of God's laws.

The way of living which reason would dictate, has been pointed out. Bread should constitute the principal article of food. It should be made from unbolted meal, and unleavened. When it is cold it is fit for the table; and enough may be prepared at once to last a week or two. This bread, together with a little ripe fruit in its natural state, is kinds enough at once. When you wish variety, make a meal of potatoes, baked, boiled or roasted, together with fruit, and if you will have it so, a piece of bread, or a dish of boiled

rice clear, or at the most with a little molasses or honey ; or beans or peas boiled in pure water ; or some other excellent vegetable plainly cooked. There are kinds enough in the vegetable kingdom for variety. Strange that man should be so omnivorous as not to be satisfied with it, without feasting upon dead flesh, and grease from the carcasses of the slain ! Avoid eating or cooking all kinds of animal food, pastry of every kind, sweetmeats in every form, butter, cheese, all kinds of condiments, seasonings, etc., etc. This the laws of health require ; and it would save the ladies an immense amount of drudgery. How simple would be the art of cooking ! What a tremendous expense would be saved ! enough to banish want and poverty from the land. The common dietetic habits cause a monstrous squandering of the time and energy of the people, which ought to be appropriated to higher and nobler purposes. If there is any truth in phrenology, these habits are an outrage upon nature, and a curse to the world !

Understand me : I am not speaking against a reasonable amount of time being spent in ministering to our appetites ; that is, an amount proportionate to their importance, and the necessity of the case. But when it comes to bestowing half our lives upon one of the lowest of forty faculties, good Lord deliver me ! If this was *necessary*, I would not say a word ; but when I am convinced that so far from being in any sense necessary, it is ruining the health and happiness of the fairest and best in the land, I dare not hold my peace.

If you have wealth sufficient to enable you to follow this bad custom, without subjecting you to poverty and excessive labor, and without enslaving the female portion of your household, still you cannot prevent the destruction of your health and life—not to mention that your wealth might be much more nobly employed ;—and besides, you ought to set an example to those who are not able to follow these expensive customs. Use your influence to make present habits unfashionable, and to bring into use those which will emancipate, and make happy, multitudes who are now in hopeless bondage. Do you love your wives, daughters and sisters ? Then free them, for mercy's sake, from the intolerable burden imposed upon them by the necessity of preparing three fashionable meals a-day ! By the shade of Pythagoras ! I would sooner *starve*,

than that my wife or sister should be forever employed in preparing, or superintending the preparation, for *me*, of the deleterious dishes of fashionable cookery; or be in such cruel bondage to this worse than useless employment, as I know that thousands of my amiable sisters are.

Ladies! if your husbands, fathers and brothers, will not move in this reform, seeing that you are the greatest sufferers from the evil complained of, take the matter into your own hands, and depend upon it, the car of reformation will move rapidly forward. Any reform which the ladies take hold of in earnest, must certainly succeed. Let there be no delay; you must certainly perceive the absurdity of the present customs, and the blessings of reform. If you will not go as far as I have indicated, go as far as you will; and the farther the better. Let not the frowns and sneers of society deter you from walking evenly and steadily in the path of duty and health, peace, happiness and long life. Let not appetite seduce you to sin and ruin.

Let me here introduce an extract from one of Dr. Alcott's works. He says,—“ I have been sometimes amused—not to say instructed,—by the simple, yet rational, management of a German family in one of our large cities. Though they move in the *first society*, they are, nevertheless, very poor, and obliged to economize more closely than almost any family I have been acquainted with. They occupy one spacious room and a chamber, in the suburbs of the city and the lady does the work of herself, husband, and an adopted daughter—besides greatly aiding her husband in his literary labors. She always seems to have time enough, whether it be to assist Mr. A., to peruse the newest work on philosophy or morals, or to give or receive visits. Yet they live neatly, and comfortably, and happily, on less, I presume from appearances, than \$400 a year.

“ I will give you a specimen of their management for one day; and it may serve as a fair specimen of their general mode of living. They rise at four. Devotional exercises take up the time till five. Then Mrs. A. ‘puts things to rights,’ and afterwards prepares breakfast: Mr. A., in the mean time, being engaged in some of his profounder studies. They breakfast exactly at six. This meal consists, in winter, of a loaf of bread and some apples, or a newly baked Indian cake, or a bowl of beans or peas, or a pea-soup, or a

platter of rice ; seldom but one at a time. They have water on the table, but rarely use or need any ; and they never use any other drink, except occasionally a little milk. They spend, in eating their simple breakfast, about fifteen minutes. This is not long time enough to be sure, but it is all they seem willing to afford. As they use but one sort of food at a meal, and require but one set of plates, the washing and clearing of dishes is disposed of, and the house clean at seven.

“ Then comes a long forenoon for study and labor ; though, when the weather is tolerable, it is frequently broken, about in the middle, by a walk, or a ride—usually the former. Sometimes, too, they are interrupted more or less by calls. At eleven, Mrs. A. puts on some potatoes to boil, and then resumes her work. At twelve, or whenever they are boiled, Mary, her adopted daughter, spreads a neat cloth over the table, sets on the dish of potatoes, the bread, and a pitcher of water, with some tumblers, and informs her mother that dinner is ready. With their plain dinner, and pleasant conversation, they pass half an hour, and even more ; sometimes sitting till one o'clock, especially if they have company. If the most illustrious visitors are present, they add nothing to the bread and potatoes, or whatever plain dishes they happen to have on the table, except, perhaps, some one kind of the best fruit of the season ; and they never make any apologies.

“ The afternoon is spent partly in study, partly in visiting and in receiving visits, and partly in free conversation, in amusements of some sort, and in light reading. Supper consists, usually, of soup of some sort or other, as pea-soup, beer soup—a foreign dish, etc. It is as simple as the breakfast or dinner, but not as often varied. They always retire at, or before, nine o'clock—frequently at eight.

“ You would be delighted with this simplicity, although you might not like to imitate it. And yet many a family, who live on the more ‘ costly viands,’ would be gainers, infinitely so, even in physical enjoyment, could they exchange both tables and appetites with Mr. A. and his family. They have business enough, study enough, recreation enough, society enough—and of the most refined society too, notwithstanding their known plainness—leisure enough—servants, they want none—and food and clothing enough. What more do they want ?

“I do not give this as a specimen of the *best* manner of living, but merely as one instance of happiness united with simplicity.”

Now I would put it to any one's reason and conscience, whether the above is not a more rational, consistent and proper way to spend one's time,—and more worthy of a human being, than it would be to spend half of every day in preparing food? Is not the course of Mrs. A. more consistent with the truths of phrenological science, and the nobility of human nature, than that of those who spend so much of their lives in ministering to one animal passion? *Beasts* spend most of their time in procuring and eating their food: let them do so, for they have no higher faculties to exercise. But shall *man*, made in the image of God, and possessed of the faculties of angels, descend to a level with the brute, and be satisfied with such enjoyments as beasts receive? Shall we make our women mere *slaves*, and keep them only to minister to our animal passions?

This argument cannot be gainsayed, nor its force resisted. Whoever spends half his time in procuring and preparing his food makes himself half a beast,—at least in practice. He shamefully and wickedly neglects his highest nature—his humanity—his God-like faculties—in order that he may live the life of a mere *animal*, and die as a beast dieth. This is severe censure, but it is just, and the majority of Americans are eminently obnoxious to it. “True it is, and pity 'tis, 'tis true.”

And what lady of common sense and feelings, would not rather live as Mrs. A. lived, than to be an eternal slave to the drudgery of the kitchen! To be under the necessity of laboring, as thousands are, from morning till night, without a moment's respite, or a single hour to devote to mental cultivation? Suppose that this reform would give you but an hour's leisure in a day, would it not be worth attending to? If any love their slavery, let them hug their chains; but those who are wise will seek out “a more excellent way.”

One more consideration connected with *economy* and we pass. There are always a great many desirable things which we wish to purchase but cannot for want of means. Let a family adopt this system and they will save several hundred dollars every year which they can devote to the purchase of something which will minister to the higher faculties of the mind. If there is a new book wanting, or a

piece of furniture, or an instrument of music, or a few dollars to devote to some benevolent, moral, or religious object or enterprize, the funds may be always at hand. Would not this be a more noble use for money, than furnishing the means of gormandizing like a swine? Now, if any of these objects present themselves, the answer is, "I cannot afford it;" and the money is immediately squandered in procuring the means of glutting alimentiveness, and gratifying a depraved appetite.

People will expend hundreds of dollars for the miserable purpose of gratifying a perverted appetite or passion, with unwholesome and pernicious luxuries,—but are too poor to subscribe for a newspaper costing a dollar, or to buy a book costing half that sum; while to give five or ten dollars for some benevolent or religious object, or to furnish the means of cultivating their moral and religious faculties, would give them the horrors. How many would freely give half a dollar for a dinner, an oyster supper, or something of that kind, which they would eat in fifteen minutes, and that would be the last of it,—when, at the same time, they would refuse, because they could not afford it, to purchase for the same sum a book which would feast their intellects and moral sentiments more than as many hours, and make them happy afterwards for more than as many days or months, in thinking about, and musing on what was learned from it. No folly can go beyond this. It is saying that fifteen minutes passional gratification is worth more than an intellectual and moral feast continuing for days and years.

And who says this? an animal, that knows not what intellectual and moral enjoyments are? Oh no! but a rational man, created in the image of God, and endowed with faculties which ally him to angels. Choose not such an unworthy object upon which to expend your efforts, and waste your noble energies. Form more worthy and consistent habits. Whenever you have any leisure time or surplus means, do not squander it upon some low sensual gratification, but use it for the purpose of making yourself or somebody else wiser, better, and happier.

How many do we see who expend many dollars every year, for, say *tobacco*, or something else quite as useless, and devote a liberal portion of each day to using it.—who would be actually frightened

if you should ask them to expend only half as much to buy books, and devote only half as much time to reading them. And yet these same men, perhaps, boast of the nobility of the human intellect; of the godlike nature of reason; and pride themselves on being raised almost infinitely above the brute creation;—yea, take to themselves airs, because they live in the nineteenth century, and pity the ignorance, stupidity, and brutality of those who lived five hundred years ago! I would suggest, that we would do well to be careful how we speak of the nobility of the human intellect, and boast of living in the nineteenth century, the boasted age of light and knowledge, until we learn to prize the cultivation and exercise of that intellect, higher than we do a chew of tobacco, or a Spanish cigar! The same remarks will apply to the use of tea, coffee, flesh, butter, sugar, and indeed all useless and expensive articles.

In short, the economy of this system is one of its greatest recommendations. Only think of the immense good which might be done, if the time and money which are squandered upon *alimentiveness* in the United States alone, were devoted to some noble, intellectual, and moral purpose. One great argument against *war* is its *wastefulness*; but it costs more to sustain the present dietetic customs of this nation for a single year, than did both our wars with Britain, *One thousand millions of dollars* is undoubtedly below the actual amount. We must have a reform, or our beloved country will speedily be filled with poverty, beggary, wretchedness and wo! I saw it stated recently in the public prints, that last year there were *two hundred millions* of bushels of corn consumed in this country by swine. This was amply sufficient to entirely sustain a nation of *thirty millions* of people, and it was wholly wasted,—for more other food was consumed, and even needed, than though no flesh had been used. But we can dwell no longer on this point. Suffice it to say, that the rapid increase of population in this country, will soon force the people to abandon flesh-eating, and other extravagant and wasteful dietetic habits, or famine and starvation will depopulate the land. It is utterly impossible for this or any other country, to maintain a very dense population, while the people live as do Americans.

The next advantage of the Reform System which I will mention is *preservation of health*—avoidance of disease and diseased pain.

Disease and sickness, in some form, make a large portion of the life of almost every one useless and wretched. This can all be avoided. You need not be diseased. It is the most consummate folly to be sick! Physiological transgression is the cause of disease and sickness. This has been before shown. Avoid the cause and you will escape the effect. But if you sow the wind, you must expect to reap the whirlwind. If you deliberately prefer sickness to health, do not complain when you are sick. Do not dare to fret against Providence, or even to murmur at the hardness of your lot. "Choose you this day whom you will serve:" if *sensuality*, then expect disease, pain, and misery, and you will not be disappointed. But if you will serve God by obeying his laws, then expect health, and uninterrupted happiness as long as you live, and you will receive your expectation, Which will you do? Let not a swinish appetite seduce you into transgression, make you miserable, and lay you in a premature grave before your duties are half performed. Break the chains of your slavery, and step forth *free*. Forswear *sensuality* for ever. If you will not,—then wallow on and die, as you soon will, and may God have mercy on your soul!

What can you enjoy unless you are in health? What can the invalid enjoy?—Enjoyment—happiness, comes only through the exercise of some of our faculties, or the use of some of our organs. But the exercise of a *diseased* organ causes pain instead of pleasure. The source of our happiness becomes the source of wo. But the positive pain produced is not the worst of the evil: this we could bear. The worst effect of disease is that it cuts off our enjoyment. The invalid not only suffers from diseased pain, but he can receive no enjoyment. Nothing can give him pleasure. Everything is insipid. Life is a burden and a curse. But I need not enlarge, for no one will deny the evils of disease. And what an immense amount of it there is in this country. What a nation of invalids! What an immense amount of suffering from disease and sickness. What a wasting of happiness and life. What wretchedness, beggary, and wo does it cause!

None of this need to exist. Wretched invalids, you are the authors of your own misery! Your daily habits furnish fuel to the fires of hell that consume you. You impiously charge your suffer-

ings to God, or fate. Miserable, deluded victims of your own ignorance and folly! You are daily poisoning and inflaming your bodies by eating abominable dishes, and yet wonder at your sufferings. When will you learn wisdom and obedience! Adopt and practice correct habits of life and health and happiness will soon smile upon and bless you. There is no mistake about this. There is not one in an hundred but may, by this means, enjoy health and happiness. And why will you not choose these blessings? Why do you prefer to be diseased and wretched? What a strange taste you must have to be sure! Why will you drag around that diseased inflamed, bloated, or emaciated body, filled with corruption, pain, and death,—to curse, with its loathsomeness, the presence of all with whom you come in contact,—when you might just as well possess one in health, purity, and happiness?

And then look at the *cost* of sickness. How much do your doctor's bills, nurse's wages, medicine, etc., cost you? to say nothing of the loss of time occasioned by your own sickness, and attending upon your family when sick. Transgression makes you sick, and sickness makes you poor and wretched. Why will you not reform? "Why will ye die?"

The grand objection to adopting the system which I recommend,—the one which, more than any other, deters people from it, is the belief that it will lessen gustatory enjoyment. Few have the hardihood to deny that the present dietetic habits are destructive to health, ruinously expensive, and wickedly enslaving to multitudes of females. Why then not abandon them? What objection to this reform? O, they gratify our appetites and passions. We receive more pleasure in eating. "Live while you live" if you die to-morrow. For shame! Miserable sensualists! who will barter health, time, money, freedom, happiness, and all things precious for a momentary pleasure! Is this a sufficient object for which to violate God's law, and subject yourselves to poverty, slavery, ignorance, disease, wretchedness, and premature death? Do you say, because fashion demands it? Then you are a slave to the hollow-hearted world, and not one of Nature's freemen.

But you are deceived in supposing that you receive more gustatory enjoyment from your present dietetic habits than you would from

correct ones. It is absurd to suppose that you can enjoy more in transgressing the Organic Laws, than you would in obeying. The following propositions are certainly true :

First; *all God's laws are entirely benevolent*; that is, they were given to make mankind *happy*. This follows as a necessary conclusion from the acknowledged benevolence of Deity—the admitted truth that “God is love.” Experience and observation also prove it, as far as human investigation can extend. It would be little if at all short of blasphemy, to assert that any of Jehovah's statutes are *malevolent*—designed to cause *misery* rather than *enjoyment*. It would also be an outrage on *common sense*—a disregard of reason, and a denial of experience. With one who would take this ground, I wish not to have any argument. But you will all agree with me; I shall, therefore, take for granted, that *all the statutes, commandments, and laws instituted and established by our Heavenly Father for our government and guidance, are designed to confer happiness and not misery upon us*. But it is a necessary inference from this, that obedience to them will make us happier—cause us to enjoy more—than disobedience can. If it is *true* that the Divine laws were given to confer happiness upon man, as their ultimate result, which none dare deny,—then the conclusion is *unavoidable* that we shall receive more enjoyment in strictly obeying them than we can in any other way. That transgression never does or can enhance our happiness, but *always and necessarily diminishes it*; to say nothing of the positive pain endured as a part of the penalty. This is *certain*; it agrees with the general tenor of the Bible, reason, and experience. Everything goes to prove that *in keeping* God's laws there is *great reward*; that, in violating them, there is both a lessening of enjoyment, and positive pain. All must acknowledge this, *in theory*, whatever may be their practice.

But the great error of mankind lies here;—passion deceives us. It makes us think, for the time being, right in opposition to the clearest and strongest convictions of our reason, that some passional gratification, obtained by the violation of some moral or physical law, will enhance our happiness—increase the sum of our enjoyment; and we will indulge in it, in spite of the vehement protest of our moral sentiments. But Satan never uttered a more barefaced lie in all his life! It is exactly contrary to truth. Every such

indulgence, however small the transgression may seem to be, lessens our happiness and increases our sufferings, just in proportion to the magnitude of the offence and the importance of the law violated.

The conviction of this immutable truth needs to be strengthened in all. Even the *best* are too prone to feel something like the man who said to a friend, "What a great pity that it is wicked to tell *falsehoods*, they are so convenient in trade." He ought to have known that every falsehood tends to *destroy* trade, and all the advantages and enjoyments flowing from it. All are too prone to feel something of this *restiveness* under the Divine laws; that the violation of some of them would give us more enjoyment than we experience in keeping them; and hence, that it is a pity it would be wicked to do it. But this feeling is all wrong. There is no such thing *possible* as enjoying more, in violating God's laws, than we would in *keeping* them. Disabuse your minds once for all of this pernicious heresy. Set your faces like flint against it. Cherish the great fundamental truth, that when you have discovered *any* law of Jehovah, your wisest, best, and happiest course lies in the way of obedience. Continually bear in mind, that although passion paints forbidden indulgences in gorgeous hues when they are at a distance, yet when they come to be embraced they are always found to be stale, insipid, unsatisfying, and perhaps disgusting; while they ever carry concealed about them, whips of scorpions, with which they lash us into fury or madness: they have serpent tongues, with which they infuse a mortal poison into all the arteries of life,—causing the fair form of happiness to pine away and die a loathsome death, while its horrid ghost remains to haunt you, and continually dog your footsteps until it chases you to a dishonored grave! If you would enjoy that life which God has given you, always obey his laws; never transgress.

The *Organic Laws*, which God has written with the finger of his own omnipotence upon the human constitution, are as important, in one sense, if not in all, as any others in the Divine statute book. Their observance confers happiness, and their violation causes suffering. This is an important truth: but how much is it disregarded; and, for all practical purposes, how universally is it discarded. Perhaps the thought never entered the mind of one in a hundred,

that the violation of any organic law, unless the transgression is very gross, and palpable as a mountain, necessarily diminishes the sum of their happiness : but it is just as true as that you exist to-day. Passion is so strong that they can scarcely convince themselves, but that some indulgence, right in the face of some known physical law, will enhance their happiness. What a fatal infatuation ! This is sometimes the case with those who entertain the clearest, strongest convictions, that the syren song of the tempter is false as perjury ; how much more with others !

Some indulgence presents itself before them, and although they know it is in opposition to some physical law, yet so strong is their impression that it will increase their enjoyments, that they will pluck and eat the forbidden fruit, notwithstanding God has expressly forbidden it. Here is a man with an appetite for strong drink. He is as well convinced as truth can make him, that every debauch is a gross violation of law ; but, because of the fatal impression that his cups give him increased enjoyment, he will indulge, destroy all happiness worthy of the name, and make himself wretched as long as he lives. Again ; there is the *glutton*. He knows that excessive alimentation is one of the greatest physical sins in the world. But he will indulge because passion tells him the *infamous falsehood* that he enjoys more by so doing than he would if he ate only half as much. Another admits that certain articles of food or drink, which he is in the daily habit of using, are opposed to the laws of health ; but he will not abandon them because he cannot realize the truth upon which we are insisting : he fancies their abandonment would lessen his enjoyment. What a fatal mistake ! Will obeying God's laws afford you less enjoyment or happiness than violating them ? This cannot be true ; it is not true. It is quite as absurd and false to say that physical transgression gives more real enjoyment than does obedience as it would be to say that *sin* confers more happiness upon its subject than does *virtue* upon its votary : which all must regard as a very horrible and monstrous proposition ! If the use of alcohol, tea, coffee, tobacco, flesh, or grease, are transgressions of the organic laws, as we have proved, then they necessarily diminish the sum of happiness just to the extent of the violence which they do. Whoever, therefore, eats and drinks in accordance with the laws of his

nature, necessarily enjoys more than he who transgresses in this respect

But I said correct dietetic habits will give more *gustatory* enjoyment than the present false ones. This is a necessary conclusion from the foregoing propositions and reasonings; and experience proves it. Let any one adopt correct habits, and persevere in them until the system has recovered from the depravity caused by previous transgression, and he will find that the amount of his gustatory enjoyment is greater than it was before. I know this from experience. Of course, we must become accustomed to plain food before we can relish it best. But when our habits are correct, we always eat our plain, simple food with the highest and most exquisite relish, on account of the acuteness and perfection of the special sense of taste. But when we eat improper food, it does violence to the gustatory nerve, and deteriorates, depraves, paralyzes, and finally destroys the sense of taste. It is impossible for such a diseased organ to impart as much enjoyment as a healthy one. True, proper vegetable food cannot gratify depraved lustings; but these ought not to be gratified; they should be immediately eradicated: but it will impart more pleasure to a healthy palate than *any* food can to a depraved one.

People say they do not like unleavened meal bread, (and other simple dishes), and that they could never relish it: this they really believe. But they do not consider that their stimulating food and fiery condiments have blunted, paralyzed and depraved the sense of taste, until it cannot perceive and appreciate the delicate, but exquisite and delicious flavors which nature has imparted to those simple substances which she has provided for our food. Recover from your gustatory depravity, and you will then know that these simple dishes will give you more rational enjoyment in the eating than *any* food now can. Let any one who doubts, try the experiment for a single year. Accurately estimate the sum of your table enjoyments at present, and do the same after you shall have faithfully and honestly followed the system recommended in this work, without a single deviation, for the space of a year, and then say if I do not tell you the truth.

But people say, we shall *long* for the food which we have been accustomed to, and this will make us unhappy. Perhaps you will, for a short time, but if your regimen is correct, you can soon re-

cover from such diseased feelings, and be perfectly satisfied with plain food. These depraved lustings after flesh, grease, narcotics, etc., are a disgrace to human nature; you ought to be ashamed of them, and eradicate and destroy them as soon as possible. The fact that you have a longing, or lusting after such things, which is hard to be denied, so far from being a legitimate excuse for continuing to use them, ought to induce you to instantly abandon the habit. The pain which you feel upon abstaining from them, shows the injury they have already done to the nervous system, and the violence done to the laws of life. The headache which a lady feels after having omitted her customary cup of tea in the morning, shows the ravages already committed upon her constitution; and the painful sensations of any kind experienced after abstaining from any particular article of food or drink, is to be regarded as an evidence of the injury which the previous use of said article has already produced. As soon as we have recovered from this injury, the painful longing will cease.

Second, *every statute of Almighty God, whether written in the Bible, in nature, or upon the human constitution, is in itself important and necessary to our welfare and happiness, and of the most binding obligation upon every human being*: consequently we should obey all the Creator's laws. I will rest their importance upon the fact that they are *laws of God*. Can any statute which he has seen fit to enact be *unimportant*? Or can it be a matter of indifference whether we obey it or not? Do our legislators ever trifle with us in this manner? Can we think that God will? What has he established laws for, unless to be obeyed?

Many think that a strict obedience to the Organic Laws, such as this work indicates, is a matter of minor consequence. They say, perhaps your system is true and best, but you overrate its importance. Perhaps vegetable food, or *seeds and fruits*, is better adapted to man's alimentary nature than flesh and grease; but it cannot be a matter of so great moment as you would make it, whether we strictly obey this law or not. I can convince ten of the *truth* of this system, where I can convince one of its *importance*. But all we have said in this work, especially in this chapter, goes to show its immense importance. Whatever shows its truth, shows its importance. The Organic Laws are institutes of God, and whatever they

demand, all their requisitions, possess the importance and authority of heavenly mandates, or commands of the Omnipotent. And how dare you knowingly violate a statute of heaven! a law of the omnipotent Jehovah? Conscience, and duty to God, bind us to obedience to these laws, just as much as to the laws written in the Bible.

If we do not know them, let us search them out. We think it a sad misfortune for any one to be ignorant of the statutes recorded in the Bible, but is it not also a misfortune to be ignorant of the laws written in your own nature? "Know thyself," is one of the most important proverbs ever spoken. If blame attaches to ignorance of *revealed law* it does also to ignorance of *constitutional law*; one is as plainly written, and as important as the other. The reason why the latter was not specially revealed, is because it can be learned from a study of the human constitution. We should search it out and obey it, both because it consists of the living statutes of Almighty God, and because it will immeasurably enhance our own interest and happiness. Let us not dare to disobey a command of the Almighty.

Finally, philosophy and experience prove, that the more perfectly we obey nature's laws in our dietetic habits, the more enjoyment we shall receive, even in the eating of our meals. The *right* kinds of food will soon taste better than wrong kinds possibly can. It is utterly false, both in philosophy and fact, to suppose that eating wrong kinds and forms of aliment can possibly impart as much gustatory enjoyment as do proper kinds to one of correct habits. But even if this were not the case, what reasonable person would sacrifice health, and with it all true happiness,—to say nothing of money, time, the stuff which life is made of, and even life itself,—for the sake of a momentary passional gratification? Will any dare thus to confess themselves *sensualists*, in the face of heaven and before men? For shame! Let reason and conscience be our guides, and not appetite and passion.

In fine, everything is in favor of thorough physiological reform and nothing is against it. Every possible consideration demands it. By adopting it you will gain in every thing, and lose in nothing. This must be the case. Nature's ways are all harmonious, and her parts all perfectly adapted to each other. When we have determined that a certain course of regimen, or system of diet, is de-

manded by nature's laws, we may immediately conclude with the most absolute certainty, that it is best for us in every respect to follow it, and worse in none. It is absurd and false to suppose that obedience to God's laws will, in any respect, impose more evils upon us than will transgression of them ; or indeed *any* real evils.

Another advantage of adopting this system is, that it will make you much more *efficient*, mentally and physically. The principles upon which this depends have been before presented. You will be enabled to perform much more mental or physical labor ; in short, to *accomplish* more in whatever you are engaged. If life is valuable, it is valuable for what it enables us to *accomplish*, as well as for what it enables us to *enjoy* ; both because we enjoy *in* doing, and in nothing else, and because the products of labor are necessary to enjoyment : therefore the most valuable as well as happiest life is the one which enables its possessor to *accomplish* most. If one system of regimen will double your *efficiency*, or enable you to perform twice as much in the same time, as another, it certainly doubles the value of every year of your life. This the reform system will do. If you so live that none of your vital energies are squandered in digesting and assimilating too much food, or food of an improper kind, requiring a great waste of vitality to use it,—or in keeping up diseased action in some part of the body,—or in supplying the excessive drain occasioned by the demands of some other perverted passion, or physiological transgression ;—if you *waste* none of your vital energies in this way, you can of course use them in useful and nobler mental and physical labor. But if you squander a large amount of vital energy in the way above indicated, you will almost necessarily be mentally and physically inefficient and imbecile. You will vegetate, but can scarcely be said to live. The value and glory of your days will depart from you !

The days and hours of sickness, indisposition, dull feelings, listlessness, sleepiness, etc., during which you are enabled to accomplish nothing and enjoy nothing, and might as well be dead as alive, you would wholly escape, if you obeyed the physiological laws ; and every hour of your lives would be one of health, vigor, activity, buoyancy, cheerfulness, efficiency and happiness. It would double and treble the value of every year of your lives, besides increasing their number four-fold.

Again, it would enable you to perform your mental and physical labor without pain and fatigue, and make all your tasks a pleasure. This is a great matter. The great body of the world's inhabitants are under the necessity of performing a greater or less amount of mental or physical labor, or both; and the majority have to work hard almost every day of their lives. To the people of this country their tasks are extremely painful and fatiguing. They regard the necessity to labor, (physically in particular,) as an almost intolerable burthen; one which renders their nights and days wretched. I have myself—and my case is only that of thousands—worked for years, during which almost every day and hour was one of torture. Every effort, every movement of a limb, was pain. The working hours were hours of wretchedness, and at night the fatigue was so excessive that several succeeding hours were hours of suffering. At last an imperfect sleep succeeded, which so far from being “tired nature's sweet restorer,” was disturbed by painful dreams, and in the morning left me weary, faint, feverish, stiff, sore, weak, distressed and miserable. These painful sensations I would drown by a meal of stimulating food, and a dose of narcotics, and enter again upon another twenty-four hours of suffering and wo. This is but the daily history of thousands, through their whole lives. And where the evil is not so great as it was in my case, still labor is painful and fatiguing, and imports no pleasure. The necessity for it is regarded as a curse, not a blessing. The happiness of laborers will do very well to talk about in novels and romances, but is seldom seen to any great extent in this country.

Consider whether this need to be so. Did God inseparably connect necessary labor with suffering? Did he place us in a situation requiring us to labor, and so construct us that labor will necessarily give us pain? Perish the thought! It is a libel on His character! Did he inseparably connect pain with the legitimate function of a muscle, or any organ? NO!—He connected *enjoyment* with the proper, normal function of every organ in the body. And *all* our enjoyment comes through the legitimate, healthy exercise or use of our organs. Every action of a muscle—every movement of a limb, was designed to give pleasure, and will do so if we preserve our bodies in perfect health, vigor, and physiological condition,—and exercise all our organs in strict consistency with the laws of our

being. The reason why labor, (a reasonable amount of it,) is painful and not pleasurable, is because we disease and debilitate our bodies by transgression, and bring the muscles, the organs of labor, into an abnormal, imperfect, and improper physiological condition. They are diseased, and if we may so express ourselves, *sore*, so that they are *hurt* by using. In this condition labor must necessarily be painful. And they are in so bad a physiological condition, that a moderate amount of exercise will excessively and painfully fatigue them; and they will slowly rest and recover. When the limited amount of vital energy which we can use in a day is expended, we are exhausted and fatigued. If a large proportion of this amount is daily expended in digesting and assimilating excessive quantities of aliment, or in guarding the system against the effects of injurious articles of food or drink, or any other physiological transgression, or in keeping up diseased action in any part of the body,—then, of course, a small amount is left to supply the muscles, and produce action, and consequently they soon become fatigued, and a small amount of exercise or labor will exhaust us.

Let us correct our habits, expend no more vital energy than is necessary in alimentation, none in physiological transgression or in keeping up diseased action,—restore the health and vigor of our bodies, and the proper physiological condition of our organs, by obedience to Nature's laws, and the legitimate function or action of our muscles will give enjoyment, exercise will be a pleasure, labor will not be painful but agreeable, and a reasonable amount will not fatigue or exhaust us. Our days, instead of being days of torture, will be filled with happiness. Our lives, instead of being one eternal round of toil and suffering, will be a constant succession of enjoyments and pleasures. This is not mere declamation, but important truth. Can you not remember hours and even days, especially in your youth, during which it was a pleasure to labor, and when every movement of the muscles gave you joy? No pain, no fatigue, no exhaustion!—Then the thing is possible. All that is wanting is to bring and keep the body in health, and the organs in proper condition. This, physiological obedience will do. Your muscles are now like a lame arm; every movement hurts them. Restore them to soundness, and their action will give enjoyment, and labor be a pleasure.

Suppose that half of the waking hours of all the inhabitants of this country, on an average, and this is not above the mark, are past in some kind of labor, which causes constant pain and suffering. The system of perfect obedience to nature's laws, which this work indicates, would prevent all this suffering, and turn all these hours into periods of happiness and joy. In this country, in a single year, it would thus convert the amount of more than *six millions of years* of human existence, from a curse to a blessing; redeem it from suffering and wo, to joy and happiness. Would not this be something?—If a laborer should live and labor for sixty years, it would, in the same way, redeem *twenty* solid years of his life from suffering to happiness.

As shown in the chapter on the Moral Argument, it will relieve us from nearly all those mental sufferings, which so much afflict the people of this country, and which are much worse than any physical sufferings: those discontentments, horrors, blues, and all the painful emotions which render the lives of so many wretched. It would prevent almost all cases of insanity, and immensely diminish the amount of crime. In short, it would tend, more than any other influence except Christianity, to improve, perfect, refine, exalt, dignify, purify, happify, ennoble, and sanctify, the human race. It would be the handmaid of Christianity, prepare the way for it, and hasten its complete and universal triumph! Its immense advantages cannot be estimated! Its blessings cannot be described!

An adoption of this system will give an independence to man, which cannot be secured without it. It will enable a single individual, and especially a family, to live on very small means. With a few dollars a-year, a man may be as independant as one with his thousands. With a hundred or two dollars, a man might support a large family a year, and supply all their legitimate and rational wants.

It would abolish the necessity for such constant and excessive labor; and give abundance of time for intellectual occupations. What rational individual would not rather have half or two thirds of his time to himself, than to be under the necessity of laboring excessively all the time, to procure the means of gratifying a depraved appetite?

It would enable a country to support a dense population, and thus

multiply human existence and happiness. "Political economists tell us that the produce of an acre of land in wheat, corn, potatoes, and other vegetables, and in fruits, will sustain animal life sixteen times as long as when the produce of the same acre is converted into flesh, by feeding and fattening animals upon it." It is believed that the inhabitants of the United States consume, on an average, one whole meal of animal food every day. The country might, therefore, sustain, without cultivating any more land, sixty millions, in the room of its present twenty millions. Would not this be desirable?

But one of the greatest advantages of this reform would be, the prevention of premature dotage, and the infirmities of old age. Now all the latter part of life is useless and wretched: then it would be the most glorious part of existence. Now people begin to break down at fifty, forty, thirty, and even twenty-five: then they would maintain their full vigor to the age of one hundred and upwards. O, the glories of a green old age! Who would not be in the enjoyment of all his faculties, in health and perfection, to the age of an hundred? All may be, by obeying their organic laws from infancy upwards. But be a *sensualist*, and you are sure of early dotage, imbecility, infirmity, disease, wretchedness, and premature death. If you will spend your youth in dissipation and debauchery, you must reap misery in your latter days. If you will not be wise, you must die the death of a fool. I wish you great satisfaction of your choice! Do bear your self-inflicted torture like a man! Don't complain.

CHAPTER XV.

BATHING, EXERCISE, ETC.

WE now come to another and important division of our subject. However strictly a person may obey the Organic Laws relating to food and drink, if he transgresses in other respects, especially in the particulars indicated by the heading of this chapter, it is in vain for him to expect to enjoy perfect health, or to reap all the advantages mentioned in the preceding chapter. On the contrary, if he is only measurably correct in his diet, and very strict in his obedience to the other and important laws of his being, he may remain in tolerable health and happiness for many years.

Without doubt, infringement of the laws of diet, in this country at least, causes more evil than any other form of physical transgression; perhaps more than all others combined: therefore, that part of our subject is the most important. But neglecting exercise and bathing causes great evil.

First, *Bathing*.—The skin is charged with the important office of removing a large amount of waste material from the body, in the form of insensible perspiration. Lavoisier estimated the amount at more than *twenty ounces* in twenty-four hours; but it varies greatly with circumstances. It is chiefly composed of water, together with some solid effete matter. Its regular removal is of the utmost importance to the health. The suppression of the insensible perspiration would leave this effete matter in the system, causing disease and death; or else it would have to be removed by other excretory organs; thus overtasking, irritating, inflaming, and diseasing them. The water of this excretion is exhaled from the surface of the skin, leaving the solid matter deposited thereon. If this is not removed, it obstructs the pores and irritates the skin, and partly suppresses the excretion. The effete matter remains in and diseases the system; or else it rushes to some other organ, as the lungs or bowels, and

irritates and inflames them; causing inflammation of the lungs, bowel complaints, etc.

We now presume the necessity of daily washing or bathing the whole surface of the body, in order to remove the waste material or effete matter which is daily deposited thereon. This deposit is more or less oily, therefore soap should be used occasionally. *Daily bathing* should never be neglected.

Again; *cleanliness* requires that the surface of the body should be washed daily. Some go for months and years without ever washing more than their hands and face. No terms are strong enough properly to reprobate the filthy practice. I would almost as soon go to the breakfast table without washing my face, as I would without my morning bath. The excrement which is suffered to accumulate and remain upon the body, renders the presence of many *disgusting*, and the abominable odor which they exhale *intolerable*. More especially is this true of flesh and grease eaters. *Decency* requires that the accumulated filth should be daily washed from the whole surface of the body. Strange that civilized beings can neglect it!

But the removal of foreign matter from the surface of the skin is not the only benefit from bathing. The application of cold water invigorates the skin and whole nervous system, and renders the former in particular elastic and healthful. There is nothing equal to it for this purpose. It will abate all diseased action, and render the mind more active, serene, and cheerful. But we need not enumerate the advantages of daily bathing, for they are generally known and admitted. Suffice it to say that no one with any accurate knowledge of physiology, would deny its immense importance to health and happiness. It cannot be neglected without evil resulting.

The principal objection which is made to daily bathing, or rather to adopting the practice of it, is the trouble which it occasions, and the time which it consumes. But these are utterly insignificant when compared with the benefits resulting. If practised before dressing in the morning, which as a general thing, is the best time, it need not consume more than *five minutes* time, and habit will soon render the trouble nothing. Who has not five minutes in a day to devote to cleanliness and health? If you cannot find time

for that, how are you going to find time to be sick and die, when the diseases come upon you which a neglect of this practice will inevitably bring! You will have to find time to *die*, if you cannot for *bathing*!—But this excuse is a mere *pretext*. The truth is you are too *indolent* to do it, and are ashamed to be without some excuse. This a convenient one, but very *foolish*. Do not sail under false colors. Either come out like a man, and say you *will* not wash your body, or else find some better pretext than this. You know you spend ten times five minutes every day unnecessarily. If you cannot find time in any other way, rise five minutes sooner than you otherwise would, and the excuse is removed. Better omit a meal to find time, than not to have it.

The *method* of bathing which has long been practised by the author, is as follows. Upon rising in the morning, which is commonly as soon as five o'clock, he immediately lays aside his night clothes, and having prepared a pail of water the night before, proceeds to a back room or wash-room, or some unoccupied apartment; or if he lives in the country steps out at the back door, if the weather will permit. If there is a shed or stoop over the door, it makes a very convenient place. He then plunges his head into the water up to the neck, and keeps it in as long as he can hold his breath. After this he applies the water with the hands freely to all parts of the body, and rubs and washes it as thoroughly as he would his face. Handfuls of water are repeatedly applied after rubbing as well as before, in order that the washing and rinsing may be very thorough; and that the contact of the cold water may invigorate the nervous system. After going through with this operation thoroughly, there will remain in the pail, perhaps two or three quarts of water, which is turned upon the head, and suffered to run down the body in a flood.

He then returns to his room and wipes dry, and then rubs the surface hard with a dry coarse towel, a crash mitten, or a flesh brush, until a reaction takes place and a glow is produced over the body. Having done, he spends a few minutes in exercising the muscles by jumping, drawing the lungs full of air, and throwing the arms back until the backs of them strike together behind him, and even the elbows so strike together. He now dresses for the day, having occupied in bathing, etc., from five to ten minutes.

There are several reasons for bathing immediately after rising. The body is then warm, not fatigued, and the circulation is equal; all of which tend to make the reaction more speedy and certain. Unless there is a glow produced afterwards, and particularly if there is an abiding chill left, the bath will perhaps do you harm. A healthy person, or one not too much enfeebled, bathing in the morning, can always have a glow. If you are debilitated, and by proper management cannot produce a reaction, but feel an abiding chill after bathing in *cold* water, you must warm the water, and if necessary make it near blood warm, and bathe in a warm room. By taking such precautions as these, the most debilitated invalid can not only bathe every day in the year without injury, but it will greatly benefit him and promote his recovery. No such invalid, however, should adopt bathing, (if he has not been accustomed to it,) unless he possesses a good knowledge of physiology, or is acting under the direction of some one who has this knowledge.

The time I have indicated is preferable because, it occasions the least labor, and trouble, and time. It saves dressing and undressing, and will not interrupt your business as it would in the middle of the day. After the habit is formed it will be less dreaded, (if it's dreaded at all,) at that hour than any other. It will immediately, as if by magic, dissipate all drowsiness and dullness, and make you feel like a new man; thus enabling you to commence and pursue your day's business with vigor, efficiency, cheerfulness and elasticity of spirits.

As to the *mode*, I prefer it to any other, because it combines *efficiency* with *convenience*. Perhaps a good portable shower-bath in your bed room, or a bathing room of convenient access where you can have a shower or a plunge, is preferable, but not much. I object to sponging, etc., because you cannot use water enough. However, if you can employ no other method, the body may at least be *cleaned* by sponging, and that is a great matter of itself. If you must bathe in your carpeted bed room, procure a piece of oiled or painted cloth, four or five feet square, with a rope sewed around the edges. Upon this stand and bathe, and then you can raise the cloth and turn the water back into the pail. Or choose any other method which your own ingenuity or circumstances may suggest; only do not fail to use *some* form of bathing daily.

My morning bath is one of the most agreeable luxuries which I enjoy in the whole day ; I would almost as soon lose my *breakfast*. And then the delightful feeling of *cleanliness* and *purity* which it gives through the day ! It is most strange that a civilized being can be so *filthy*, as to go for weeks and months without washing the skin. The people of this country have but a sorry conception of what constitutes true cleanliness ! They are as filthy as we have before shown them to be *sensual*. I am sorry if saying this offends anybody, but it is the *truth*, and you all know it to be the truth. You perhaps wash your face and hands daily, but what proportion of your body do these constitute ? and how often do you wash the remainder ? Your neglect of washing is a gross violation of *decency*, as well as a wicked transgression of the laws of your being. Earth and heaven call you to repent !

Second, *Exercise*.—Regular and sufficient exercise is as necessary to health and even life, as is air, water, or food. Every organ of the body has its own appropriate function ; and the performance of this function is necessary to its well being. In other words, we are so constituted that every organ must be duly exercised in accordance with the design of its nature, in order to preserve it in health and vigor. If this is neglected for any length of time, disease is the inevitable consequence. Now the muscles are among the largest and most important organs in the body ; and consequently if they are suffered by inaction to become enfeebled and diseased, the evil is correspondingly great. Not only so, but the continued inaction of the muscles, implies the non-performance of many other important functions, and consequently accumulates evil upon evil. Unless the muscular system is regularly and vigorously exercised, the lungs will not properly act, and hence the function of respiration will be imperfectly performed. This will vitiate the blood, and through it the whole body : corruption and disease will be introduced into every member. Again ; unless the muscles are properly exercised, the alimentary organs—the stomach, etc.—will not act vigorously, and therefore digestion and assimilation will be imperfectly performed. Of course the body will be imperfectly nourished, and filled and even built up with the crude and injurious products of imperfect digestion. What but evil can result from this ?—Once more ; vigorous and regular muscular action is necessary to the pro-

per performance of the functions of the organs of excretion. Without it, the lungs, skin, kidneys, bowels, etc., will not properly perform their office of removing effete and waste matter from the body. The consequence will be that it will accumulate in the system, and obstruct, oppress, irritate and disease the whole vital economy. Finally, the blood vessels are so constructed and situated with reference to the muscles, that the action of the latter is necessary to assist the proper flow of the blood along the veins and arteries. Without it, the circulation of the blood would be sluggish, and at last become almost entirely suspended.

Thus we see that regular and vigorous exercise of the muscles, is not only necessary in order to keep these important organs in health, but that it is absolutely indispensable to the due performance of the functions of all the organs of the body. Respiration, digestion, nutrition secretion, excretion, circulation of the blood, and even the phenomena of mentality, can none of them be properly performed for any length of time, unless the muscular system is duly exercised; hence the welfare of the lungs, alimentary organs, secretory and excretory functions, and through them every part of the body, depends directly upon this. Its neglect will inevitably entail upon the transgressor all the evils of deficient respirations, imperfect digestion, nutrition, secretion, excretion, sluggish circulation and torpid mental action. Need we say that no one in this condition, or under these circumstances, can long remain in health, or enjoy happiness? Necessary effects soon follow their causes.

But I need not enumerate no more of the evils which follow deficiency of muscular exercise; they will be readily acknowledged by one and all. There is, at least, a *theoretical* consent on all hands to the proposition that want of exercise is, where it exists, the cause of great evil, and that regular and sufficient muscular action is one of the most efficient promoters of health, and, through it, of happiness. And among the laboring classes, practice is usually combined with theory. Here there is not usually a deficiency, but frequently an *excess* of muscular action. Excessive labor, so far from being a good, is an evil, and one of great magnitude. Although every organ should be regularly and sufficiently exercised, in accordance with the organic laws, and must be in order to preserve it in health, yet the excessive use of the same organ is always injurious; it must, therefore, be avoided.

But among those who are not under the necessity of daily labor, although they generally admit the necessity of exercise, it is frequently if not commonly neglected. They need to feel more strongly its paramount importance and absolute necessity. They need to realize that health and happiness cannot possibly be enjoyed without it. That most or all the ailments under which they are suffering, are either caused or aggravated and perpetuated by habitual inaction of the muscles; and that muscular exercise of the right kind, and in sufficient quantity, is so very efficacious in promoting bodily health and vigor, that it will fortify the system against injurious influences which would otherwise destroy it, and even enable it to resist and bear up under a course of physiological transgression, for many years, in comparative health and vigor, which would otherwise have soon crushed it to the earth. One great reason why laboring people, as a general thing, are so much more healthy and vigorous than the sedentary,—and are enabled to resist for so long a time, the pernicious influence of their dietetic and other transgressions, is because of their habitual and vigorous use of their muscular system. This so happily promotes and strengthens all the functions of the body, as we have seen, that it fortifies them against the effects of injurious influences, and enables them to bear up for a long time under a weight of physical sin, which would almost instantly crush a sedentary or indolent man. Not that labor can render bad physical influences absolutely harmless, but it will mitigate their effects, and postpone their inevitable consequences to a later period. For instance, a body debilitated by want of muscular exercise, would have little power of resisting miasma or infection; whereas one invigorated by manly labor, would not be so liable to be made sick by the same means. So of other injurious influences.

The next point which claims attention, is the proper *amount* of exercise. We would infer from the size of the muscles, as compared with the rest of the body, that this amount ought to be considerable. They are large and important organs, and without doubt were designed to perform a large amount of function. We would infer the same from the importance or necessity of muscular action to promote other important functions, of which we have before spoken. For instance, if it is necessary to make the lungs act

efficiently, and the blood to circulate vigorously, then it is evident that there ought to be a considerable amount of it every day, in order to render the performance of these important functions as perfect as possible. Exercise for a few minutes or an hour in the morning is certainly not enough; it should occupy a larger proportion of our time than this. The functions of respiration and circulation, which this is necessary to promote, continue without interruption.

Again; the analogy of the lower animals, all of which—at least the more perfect or highly organized species—perform a large amount of muscular action, would teach us the propriety of doing the same. Since the laws which govern muscular action, and the consequences resulting from it to the vital economy, as well the consequences of inaction, are similar or identical in man and in the more perfect animals; therefore if a large amount of exercise is necessary or profitable for them, it must be for him. That it is necessary for them, is evident from the fact, that all the circumstances of their being are so arranged as to secure it. We might say the same of man. The circumstances of his existence are so arranged, that he cannot secure the means of life, comfort, and enjoyment, without a large amount of muscular action; hence, the wise and benevolent Creator saw that this would be necessary to his well-being and happiness. It does not vitiate this conclusion, because some are placed by fortune above, (or below,) the necessity of laboring with their hands for their daily bread; for they are manifestly not in their normal condition. They have—or the laws have for them—thrown that burthen which Providence gave them to bear through the world, and which it is necessary they should bear, to secure their well-being and happiness, upon their neighbors; who are thereby overburdened, and their happiness destroyed along with that of their oppressors. This is one of the most beneficent gifts of God, if used according to his intention—one which would equally bless all converted by man's folly and perversity, into a general curse!

Since all the arrangements of Providence are in perfect harmony with each other, therefore all the muscular action which is required to supply all the necessary and legitimate wants, (I do not say all the artificial appetites and lusts,) of an individual, is necessary to

promote his highest well-being. This is the general rule, to which, in the present state of things, there are exceptions in the case of invalids, etc. This rule would give a large amount of labor or muscular action to every individual, every day. Much below this, and greatly above it, he cannot go without injury to his highest and best interests.

Once more ; experience proves the necessity of a large amount of muscular exercise every day. Those who perform a large,—not an *excessive*—amount of labor or proper exercise, other things being equal, uniformly enjoy much the best health and the most happiness ; while those who perform but little are feeble, sickly, and miserable. This is so palpable as to be acknowledged by all. We have, therefore, come to this conclusion, viz. : *a large amount of muscular exercise is absolutely necessary in order to secure the highest health and the greatest happiness.* This is demanded by the organic laws, and we are under imperative obligations to obey. Terrible are the results of disobedience.

As to the exact amount which it is proper or necessary to take each day, of course we can make no definite statement. It will vary with the constitution and condition of the subject, as well as with the kind of exercise in which he is engaged. The larger and stronger, and more vigorous the muscles, the more exercise is required ; and the harder the labor, the less time will it be necessary to be engaged in it, and so forth. But there are some conditions which are definite, and therefore determinable. Let us briefly notice them.

First ; it should be such as to exercise all the muscles, or as many of them as possible. The same laws and consequences which require us to exercise one muscle, just as much demand the exercise of all. That kind of exercise or labor should be chosen, therefore, which will bring into use as many of them as possible. At least we should take care fully to exercise all the muscles every day. A fashionable *saunter*, where the limbs move at a snail's pace, and the arms are kept as though hung in a sling, will never do. If you walk for exercise, walk with all your might ; yea, *run*, until the perspiration starts from your brow, and the blood rushes vigorously through your veins. Run up hill, even : never mind the rapid breathing, it will purify your blood. Bend every muscle to

the task. What glorious sport! Is it not better than fainting on a sofa? Never mind the fatigue, it will do you good; it is what you need. To those who are engaged in daily labor, I need not speak; their employments will give them plenty of exercise. But to others I would say, brisk walking, running and jumping, sawing wood, working in a garden, or any other employment, which will call into action a large number of the more important muscles, will answer this first condition. Let some of these be chosen.

Second; interest in what we are doing, and cheerful emotions, should, if possible, be joined with our exercise. This will make it much more beneficial. Exercise, taken simply for exercise, and in which the mind is not interested, but which is perhaps felt as a task, will be much less useful than that which is performed as a pleasure, or that in which the mind is engaged as well as the body. The former will only fatigue; the latter will serve as the natural and proper stimulus to all the organs and functions of the body and mind. The first is better than no exercise, but it is much inferior to the last. Choose therefore, if possible, for muscular exercise, something which it is a pleasure and a recreation to perform, or something which you have a strong interest in doing. Some employment which will be of some *use*—which will effect some object of value to yourselves or others—is in every respect greatly to be preferred; and this kind of exercise can generally be obtained. Where it cannot, let it be some amusement which will give much muscular action, and in which you are interested. Exercise briskly and laboriously for several hours every day, until considerable fatigue is induced. But do not depend upon even this as sufficient. I mean that it would be highly improper, after exercising a few hours in the morning, to spend the remainder of the day in muscular inaction—without any further muscular efforts. Indeed, no man or woman ought ever, except when asleep, to suffer the muscles to remain in absolute inaction, or to continue in the same position, for any great length of time together. The laws which govern the muscles, as well as the necessity of muscular action to perfect respiration, circulation, etc., imperatively forbid this. If we are engaged in sedentary pursuits, which require little or no muscular action, let them be interspersed at short intervals, with brief

but brisk muscular efforts ; but if possible let more or less muscular action be mixed directly with our sedentary occupations. Suppose our employment is principally study, reading and writing, it would be highly improper and injurious, after the few hours devoted to exercise, to sit the remainder of the day at a table, without interruption. If we must sit at all, let it be broken at short intervals by some brisk muscular effort, if it is nothing but walking or jumping in our room. But there is no necessity for sitting much of the time when we are studying. If we are reading, we can just as well do it while we are walking to and fro in the room, or at least when standing ; and if we are writing, we may have a high desk and stand at that. While we are arranging the ideas and sentences in our minds preparatory to committing them to paper, we may walk across the floor, and thus avoid the evils of continued muscular inaction. This is the method which the author has pursued for years. The largest proportion of his reading is done walking or standing ; and this work is all composed at a standing desk. He has reaped immense advantages from substituting this for his former practice of sitting at his studies. Standing would be at first unpleasant and perhaps painful to one long accustomed to sitting ; but the author speaks from ample experience when he says, that practice will soon render the former much more agreeable than the latter. He would now from choice continue the practice of standing, to write, at least, if there were no advantages to health connected with it. But it is a matter of great importance, and he would earnestly advise every student, old or young, at least to give it a thorough trial. Depend upon it, nothing is more injurious to health than the practice of sitting or lying (when not asleep) for hours in the same position, or with little or no muscular action. It is a canker which will soon rust away all our vigor, elasticity and strength !

Third, exercise, (that which is performed *for* exercise,) should, if possible, be in the open air. Exercise when brisk, as it should be, sets the lungs into rapid and most vigorous action, and consequently causes the inhalation of a large amount of air. It is evident that in order to produce the most benefit, in purifying and vitalizing the blood, etc., this air must be of the purest possible quality. But this can only be obtained under the open canopy of heaven ; hence there we should resort for exercise. Let the cool fresh breezes fill our

lungs, and bathe the whole surface of our bodies. Let us be as free from clothing, and especially tight clothing, as possible ; so that there will be nothing to obstruct the free action of our limbs and lungs, or to hinder the copious application of the fresh air to every part of the skin. Another reason why we should exercise in the open air, is the benefit of subjecting ourselves to the direct light of the sun. Even vegetables will not thrive in the dark, but will grow up yellow and sickly. Who would expect to raise good corn or wheat in the shade? So neither can animals or man thrive as well, or remain in as perfect health, when kept from the direct light of the sun. There is no better time to subject ourselves to this necessary influence than when we are taking our daily exercise.

I have only room to add to what has been said concerning exercise, that it should never be excessive, especially in the case of debilitated persons. And if one has long been accustomed to but little muscular action, he should not commence taking a full amount at once, but begin with a little, and gradually increase the amount as the strength increases. Also after a full meal violent exercise should be avoided for at least an hour or two, as the nervous energy required to keep it up might be diverted from the stomach, and thereby impede digestion. But for the vigorous, whose habits are correct, this caution is hardly necessary.

Third, *air*.—Atmospheric air is as necessary to animal life and health, as food and drink. It is principally introduced into the system through the lungs, by respiration or breathing. Being in the lungs it comes in contact, (or within acting distance,) with the venous blood in the air cells. A portion of its oxygen is taken up by the red globules of the blood, and carried by them with the blood in its circulation to every part of the body. It also receives from the venous blood a large quantity of effete or excrementitious matter, which that has collected in its passage through the body, and carries it with it into the atmosphere at the next expiration ; thus serving as a powerful means of purifying the blood, and relieving the body of its worn out materials. The oxygen which has been taken up by the red globules and carried with them along the general circulation, gradually unites, under the control of the laws of vitality, with the carbon derived from the food ; and which being a kind of combustion, furnishes caloric to keep up the vital heat of the body.

This combustion takes place in all parts of the body where the blood penetrates, and hence maintains the heat in all parts. There is an absolute necessity for a constant supply of this vital heat, in order to maintain the body at the proper temperature; therefore the supply of oxygen, and consequently of air, from which alone it is derived, must be constant and copious. The absolute necessity for a constant supply of air, is also shown from the fact, that it is impossible for us to suspend the action of the lungs for more than a few minutes at a time, and that it cannot be suspended by any means for any length of time, without causing insensibility and death. But air for respiration must be *pure*, as well as abundant and constant in its supply. By this I mean that it must contain its proper proportion of oxygen, and be free from foreign substances, such as impure exhalations, etc. If it is deficient in oxygen, it cannot impart this indispensable agent to the blood. If loaded with foreign matter, it cannot properly remove the exhalations from the lungs, being already partly or entirely saturated. If saturated with impure or injurious substances, when introduced into the lungs, they will be absorbed by them, and carried into the system to poison and disease it. It follows from this, that the strictest care should be exercised in providing a constant and abundant supply of the purest air for purposes of respiration. But as a considerable portion of oxygen is abstracted from the air inspired during the process of respiration, and its place supplied with the carbonic acid gas and other impure exhalations from the lungs, which renders it unfit for re-inspiration,—and as a single individual breathes a large amount every hour of his life,—we see the great importance of providing large airy rooms, and taking great pains to keep them well ventilated. If several persons are confined in a tight room, they will very soon breathe over all the air which it contains, and unless its place is supplied with fresh air from without, they will be obliged to respire it the second time, when, as we have seen, it is very unfit for the purpose. If they do this habitually, how is it possible for them to escape disease? After air has been respired once, it becomes somewhat lighter than it was before, or than the surrounding atmosphere, and hence ascends upward. This indicates the propriety of having high rooms. If they are only a little above our heads, the small space between our mouths and the ceiling will soon

become filled with respired air, and we shall be under the necessity of breathing a vitiated atmosphere; whereas, if they are high, the large space above us will give room for the respired air to ascend for a long time, leaving that which we breathe pure and fresh. Our rooms should be twelve feet high at the very least. There is room enough between us and the sky, why need we be so afraid of appropriating it? When the atmosphere is fifty miles deep, why need we live in rooms seven feet high? And let them be large, too. Is there not space enough on the earth? Why then the necessity of living in a room only seven by nine? A large number of rooms is not necessary, but let what you have be of a respectable size. If you can have but *two*, let them be large.

But large and high rooms are not all that is required. If they are tight, great pains should be taken that they are well ventilated. There should be a small aperture at the top to carry off vitiated air, and another at the bottom, or near the bottom, to admit that which is fresh. In this way a pure atmosphere in the room, may be constantly maintained. Sleeping rooms in particular should be large, high, and well ventilated. We respire constantly during our sleep, and at that time the system has less power of resisting injurious influences than when awake; consequently a deficient or impure atmosphere would, be even more injurious than at any other time, when we sleep. When we have fires or burn candles in our rooms, inasmuch as they consume a large amount of oxygen, there is so much the more necessity for thorough ventilation. We cannot be too particular in this respect; for if life and health depend upon one thing more than another, it is upon a constant and copious supply of pure fresh air. We may live for days without food, but can scarcely live as many minutes without air; a conclusive proof of its vital necessity. Any one who neglects any attainable condition for securing a constant respiration of pure fresh air, grossly violates some of the most important of the organic laws. Need I say that disease and suffering are the inevitable consequences?

In order to secure these conditions of pure air in the highest possible perfection, we must not only provide large and high rooms, and proper ventilation, but we must also take care that all noxious and impure substances, which have a tendency to corrupt the air by imparting to it improper exhalations, bad smells, etc., are removed

from our houses and their vicinity, and buried in the earth. Such things help to fertilize the ground, but they poison the air. We should not only bury every thing which tends to corrupt the air in, and around our houses, but by thorough and repeated washings, fumigations, the use of lime, etc., we should make the cleansings very perfect. Do not rest till you have thoroughly exterminated all bad smells and noxious vapors, and every possible cause of them, in your vicinity, and then exercise constant vigilance in preventing their return. In this way only can you secure a pure atmosphere for respiration.

Fourth ; *clothing*.—Although well calculated to adapt himself to a great variety of climate, man was originally, without doubt, tropical or nearly so in his geographical situation. Designed to live in a warm latitude, he would in his most natural situation require but little clothing, and this of the lightest and loosest kind. This would give the limbs and chest full play, muscular action and respiration would be unimpaired, the heat of the body would not be accumulated on the surface, and the fresh air would have free access to every part of the surface of the body: for the skin as well as the lungs, is, if we may so speak, a breathing organ; it absorbs oxygen, and throws off carbonic acid gas, and other excretions; hence, it is nearly as important that fresh air should have constant and free access to every part of the surface, as that it should to the lungs. Warm, heavy clothing, therefore, is an evil; perhaps a *necessary* evil in a cold climate, but nevertheless an evil. Not that it would be better to go without clothing, or with very light clothes, in this climate, and especially in the present debilitated condition of the human constitution; but this not being man's natural climate, heavy clothes, although necessary to protect him from cold, are still the cause of some mischief. When we live in a cold climate, better to go dressed sufficiently warm; but better still to live in a warm, (I do not say excessively *hot*,) climate—other things being equal—and go very lightly and loosely dressed. Nevertheless, we can so regulate our dress in this climate, as to secure all necessary conditions—protection, warmth, etc.—without militating against our physical welfare, in any great or appreciable degree. We must take care that it does not fit too tight to our bodies, or it will impede the muscular motions, and prevent the air from having free access.

to the skin. Especially is it important to have it loose around the chest, so that it shall not impede that important function, respiration. The chest largely expands at every full inspiration, so that the lungs may dilate and give room for the inspired air. If the clothes are tight around the waist, this result cannot be fully attained, and the whole system must suffer for want of air ; to say nothing of the especial suffering of the compressed lungs. The fashionable practice of *lacing*, which prevails most among the ladies, is not only the very consummation of folly, but of wickedness. There can be no more perfect exemplification of the vulgar proverb, "two rogues and one fool," than in this absurd and accursed custom. The shape which it produces in the female, who is its tortured slave, is one of the most hideous deformities which it is possible to imagine. It nearly destroys all true grace in the female figure, as it banishes all freshness and true beauty from her cheek. It diseases her lungs, ruins her health, destroys her happiness, and worst of all, transmits diseases and deformities to her children, which will curse them and their descendants for ten generations ! And all for what ? Just for the sake of following a fashion invented in hell, for the destruction of the human race ! Pause, I adjure you ! If you have no regard for yourselves—for your own lives and happiness—I beseech you spare your children, and childrens' children ! By continuing this practice, you make yourselves offensive to all true taste in beauty, as well as obnoxious to the severest penalties of God's moral and physical laws !

Some insist, and perhaps think, that they do not lace tight because the strings are not as tight as they can be drawn ; although they are tight enough seriously to impede respiration. The dress of the chest should never be so tight, to say the least, as to prevent the free expansion of the lungs, to their utmost capacity. If it is tighter than this, evil will result. Neither should the clothing be tight on other parts of the body. If it is, it will prevent the free action of the muscles, and impede the circulation of the blood. It should be very loose on all parts. It is very injurious to dress the feet in tight socks or stocking, and tight shoes or boots. It prevents the free circulation of the blood in them, keeps them cold, and makes them half dead ; to say nothing about corns, etc. Let them be dressed loose—extremely loose.

Again; clothes must not be too warm, or too heavy. If they are, they will retain the heat too much at the surface of the body, and thereby debilitate the skin and injure the whole system. Nothing is more debilitating than to habitually keep the temperature of the body too high at the surface, by means of warm clothing. I would not recommend that invalids should suffer for want of proper clothing to keep them comfortably warm, for in them the power of manufacturing vital heat is weakened as well as other functions; nor that anybody should go insufficiently clad; but I would warn all against the evils of excessive clothing. It is better for the robust, at least, to depend principally upon exercise to keep up the proper temperature of the body. Dress light—the lighter the better, so that you do not suffer from cold—and keep up the proper temperature of the body by exercise. But vary your dress according to the temperature of the air, the weather, the degree of exposure to which you are subjected, and so forth. It is clearly wrong to dress in summer as warm as you ought to in winter, or in winter to dress as lightly as you ought to in summer; or when you ride out in a cold day, to dress as you would to sit in your warm parlor.

Another reason why our dress should be as light and as loose as possible, is that the fresh air may have constant and free access to every part of the surface of the body. As we have said, the skin is, so to speak, a breathing organ. It absorbs oxygen, and excretes a large amount of waste matter from the body. This excreted matter is mainly exhaled from the surface in vapor; of course the presence of air is necessary to remove it. Tight and heavy clothes exclude it.

Again; those parts of our dress which come in contact with our skin, should be often washed. We have said that a large amount of excrementitious matter was removed by the skin. Portions of this are constantly deposited on the garments which come in contact with our bodies, which soon render them foul. If let to remain, this would be, to some extent, re-absorbed and act as a poison; for the skin has considerable power of absorption from its surface. It should be an object of special care, to frequently cleanse these garments by airing and washing. Let the garments which have been worn next the skin during the day, be removed at night, and hung up where they will be exposed to the pure air until

morning. This will render them much cleaner and fresher. And in the morning, let the garments which have been worn through the night, be hung up in the same manner until the next night. In this way you will have comparatively fresh garments to put on every night and morning, instead of sleeping in one a week without airing. Have these thoroughly washed, at least, once a week: twice a week would be better. In this way, and by thoroughly washing the skin once a day, we may hope to preserve a reasonable degree of cleanliness. Let soap and water be used freely.

Cotton and linen, being good conductors of heat, and therefore not calculated to retain the heat at the surface of the body, make the best clothing for summer. Wool, being a bad conductor, and therefore calculated to prevent the heat from escaping too rapidly, makes the best outside for clothing for winter. Silks and furs, being so expensive, should be used only for ornaments by the wealthy. It has long been supposed that woollen-flannel formed the best inner garments, especially in winter; and it has been said that the genius of health for our climate should be painted with a pair of flannel-drawers in her hand. But this is undoubtedly an error. If it is meant that flannel inner garments are best for debilitated invalids, who cannot keep warm without, I have nothing to say; but for those in tolerable health, it is *not* best that garments which come in contact with the skin should be of wool. Wool is too irritating, heating, and stimulating to the skin, when it comes in contact with it. Many cannot so wear it; and it is injurious to all, except in the cases before mentioned. For those portions of our dress which come in contact with the skin, linen should be used in summer if convenient, if not cotton, and cotton in winter; never woollen, in health. As to the dress for the feet, it had better consist simply of shoes or boots—the former are best, unless we are to wade in water, mud, or snow—without stocking of any kind. If they must be wore, let them always be of cotton. The author has not wore socks or stocking of any kind for more than three years, and would not do so now on any consideration. The evils and discomfort of keeping the feet wrapped in flannel, winter and summer, in-doors and out, would be to him intolerable. In the first place, woollen is elastic, and cotton to some extent; consequently, when the sock is drawn on, it contracts around the foot, and keeps it constantly compressed, so

that the blood cannot circulate freely in it, nor the air come to it. If the author was now to put on, in the morning, a pair of common socks, with a pair of boots ordinarily tight, his feet would be so benumbed from the compression before night, that he could not walk freely. He has tried it and knows. People who are accustomed to wear them, are not sensible of the effect; just as tobacco-eaters are not sensible of the poisonous effects of the drug, which, upon others, are so painful. In the second place, they keep the feet too warm, and thereby debilitate and greatly injure them. I do not say that woolen socks would be too warm when you ride out in a cold day, in winter; but by keeping them on in the summer, and in the house, you so enfeeble the feet, that they are sure to suffer as soon as you step out in the cold. While the author habitually wore woolen socks, he habitually had cold feet, and if he rode out in winter he was in extreme danger of freezing them; since he has discarded them, he has never been troubled in this respect. His feet now never suffer with cold, except in extreme cases. People wear woolen stockings, summer and winter, to keep their feet warm; but there is no surer way to secure cold feet than this. Throw off your stockings and garters, or gradually accustom yourselves to do without them, and reform your regimen in other respects, and you need not fear suffering from cold feet. When you ride out in a cold day, you can put on overshoes, if necessary; and rubbers will protect your feet if you walk in the mud or snow. One more consideration: while the author wore socks, he was much troubled with corns, which he tried in vain to cure. The elastic pressure of the sock effectually prevented it. But as soon as he left off wearing socks, all the corns got well of themselves, and have never troubled him, in the least, since. His shoes or boots are always large as compared with the foot. No doubt others would experience the same results by adopting the same means.

Fifth; *temperature*. Blood heat is estimated at ninety-eight degrees of the thermometer. This is the proper temperature of the body. If it falls much below this, or is raised much above, death ensues. But the temperature of the surrounding atmosphere is almost always, and in all habitable climates, much below this point. It varies from below the freezing point, up to summer heat, or seventy-six degrees, and sometimes beyond; but in these various

atmospheric temperatures, the body—except occasionally at the surface—remains at nearly the same degree, viz., ninety-eight. The atmosphere being always, or almost always, of much lower temperature than the body, of course there is a constant escape of heat from the body into the atmosphere; there must, therefore, be a constant supply of heat in the body to maintain this constant expenditure. This is manufactured or produced, as we have seen, by the constant combustion of carbon in the lungs and blood. Clothes, by rendering the escape of heat from the body less rapid, lessens the amount of heat necessary to be produced. Heated rooms also have the same effect. Now, the question is, how far should these means be used to lessen the expenditure of heat from the body? It is, undoubtedly, better that we should wear thick clothing, and warm our rooms by artificial heat, than that we should constantly expose ourselves naked to the rigors of a Greenland winter. But on the other hand, it would *not* be best that we should carry these means so far as to prevent nearly all expenditure and production of vital heat by the body. We have organs and functions designed to produce this heat, and its expenditure is absolutely necessary in carrying on some of the indispensable vital operations; such as the insensible perspiration, and other excretions. If we prevent this expenditure, and consequently production of heat, by clothing and heated rooms, of course we weaken these organs and their functions, just as any organ or function is weakened by inaction; just as the arm would become debilitated and diseased if kept hung in a sling at the side. After this, if we are exposed to the cold, the heat producing function being debilitated by inaction, the temperature of the body is rapidly reduced, and colds and other diseases must inevitably ensue. Besides, it being a design of our organization that a considerable amount of heat should be constantly expended, if this is habitually prevented, great evil must result.

On the whole, according to the foregoing principles, it must be exceedingly injurious to keep the body too warmly clad, or to live in rooms too much heated. The exact temperature to which they ought to be raised, perhaps cannot be determined, and it may vary with circumstances; but it ought always to be much below the temperature of the body, and, as a general rule, probably ought not to go above seventy or eighty; perhaps not higher than from sixty

to seventy. If we accustom ourselves to live in comparatively cold rooms, they will soon be equally as comfortable to us as those which are warmer. Warm rooms are among the most efficient causes of debility, colds, etc., which exist.

Again; warming by the fire, roasting the feet, etc., are very wrong. When we have been out in a cold day and are very cold, we ought not to approach the fire immediately, and warm ourselves as quick as we can; but rather retire into the farther corner of the room, and thus warm gradually. If the hand was frozen, it would spoil it to put it directly to the fire; we should first put it into snow, or cold water, and warm it very slowly. So if the hand was very cold, and we should put it directly to the fire, it would cause severe pain, an indication that it was injured; but if we warmed it very gradually, this would not occur. The same principal applies to all parts of the body, and to every degree of cold. Neither should we heat one side or part of the body while the other side remains cold; all parts should be kept as near as possible at the same temperature, so that the circulation and vital action may be equal and uniform in all parts. The heat of the room should be, if possible, uniform in all parts. The habit of holding the feet to the fire and heating, or *roasting* them, as it is called, is very common, but it is wrong. To say nothing of the injury resulting to the organization in applying a strong degree of heat to any organ or part of the body, which must be very great,—the practice of depending upon artificial heat to keep up the temperature of the feet, soon renders them incapable of maintaining their own temperature, or producing their own heat. When we do, by artificial means, what a natural function of the body was designed to do, we necessarily weaken that function, and if we continue, *destroy* it;—and also produce general injury, because artificial means can never accomplish a thing so well as those means which nature provides; therefore never do, by artificial means, what can be done by natural. If the feet are habitually heated by the fire, they will be habitually cold when they are away from it.

I would remark that a high temperature of air is much less injurious out of doors, than it is in a tight room. Out of doors it is fresh and in abundance, and by means of winds and our own motions, fresh portions of it are constantly brought in contact with our

bodies, thus carrying off the heat much faster than it would otherwise do; while in the house, it is still limited in quantity and frequently vitiated. If we put both hands in a pail of water, holding one still and moving the other back and forth through the water, the latter will lose its heat much faster, and become cold much sooner than the former. So if we are out in a windy day, the body will lose its heat faster and become cold sooner than it would if the air was still, but at the same temperature. This, all have experienced. It appears, therefore, that the air out of doors, which is commonly in motion more or less—or we in motion through it when we are out, which is the same in effect—is much more efficacious in removing caloric or heat from the body than air of the same temperature in a room which is nearly at rest. The former, though it should come up nearly to the degree of blood heat, would do little or no injury; whereas the latter of this temperature would nearly suffocate us. Whatever may be said about the injurious effects of hot weather—and such twattle is very common—it is certain that the atmosphere is seldom if ever hot enough, at least in this country, to produce any injury to a person who follows a correct general regimen; but the same temperature, in a tight room, might be exceedingly injurious to any one. God has not so arranged things that we must necessarily become diseased, but only on condition of disobeying his laws. But rather than repent we will attribute our sickness to the climate, hot weather, etc., and not to our own sin. Oh, man, man!

Sixth; *sleeping*.—We are so constituted, that a portion of every twenty-four hours must be spent in sleep. This is necessary to rest the wearied energies, and repair the worn organs of the body and mind. Sleep is “tired nature’s sweet restorer.” During sleep it is supposed that our food is principally assimilated, to restore the waste in the substance of the organs which has been occasioned by the vital actions during the day. We have before remarked, that no action of the body or mind can take place without the transformation of a certain amount of the tissues of the organs, which becomes effete matter, and is removed from the system, while its place is supplied by fresh material from the food. This vital action and transformation of tissue, takes place principally when we are awake; and its replacement by fresh material takes place principally

during sleep. This is a wise arrangement,—for while the vital energies are vigorously engaged in action, there would be none to spare for assimilation; and when they were engaged in assimilation, there would not be enough to spare for action: consequently if they were to go on simultaneously, neither function could be so well performed. But as it is, there is time and energies for both. We see therefore that a proper amount of sleep is absolutely necessary. What conditions and laws should govern it? When we should take it, and how much?

The analogy of all animate nature, with perhaps a few exceptions, as well as the consideration of adaptation, instinct, and necessity, all show us that night, when darkness overshadows the land, is the natural and proper time for sleep, as day is for action. The same analogy, adaptation, and instinct, when unperverted, show us that it should begin in the early part of the night, soon after the light of day has departed. As the beasts of the earth retire with, or soon after the light of the sun, so should man. The light, which forms the natural stimulation to the organs of our senses, thereby tending to keep us awake, being withdrawn by our ever watchful parent, the sooner we repose in slumber the better. The almost irresistible tendency in one whose constitution and habits are in the normal condition, is to sleep early; while only those who have perverted their natures desire to sit up late. Early drowsiness and sleep is a pretty good indication of health, while wakefulness in the fore part of the night is a bad symptom. If we are designed to commence sleep in the fore part of the night, soon after the light of the sun departs, then it is important that we should obey this design; and experience and observation show that early sleep is much more valuable than late. I believe there is a general agreement among authorities upon this point. Besides, this enables us to finish our sleep, and be ready for the active duties of the day, when, or before the light of the sun returns. We can work as much better by day as we can sleep by night.—besides saving the expense of lights. How absurd, in every respect, to work by night and sleep by day!

The proper *quantity* of sleep is perhaps not so easily determined. It undoubtedly varies with circumstances and habits, but not to any great extent. Too little would leave us unrefreshed,—too much would tend to debility and disease, and waste our time. Perhaps,

as near as we can get to the mark, is to say that we should sleep from six to eight hours every night. I think that in all ordinary cases, one third of the time is as much at most, as we need or ought to sleep; and in many cases six hours is probably enough. It is not believed that a less amount than this last, except perhaps in peculiar and rare cases, will suffice year after year to keep the organs in the best possible condition. On the whole, probably seven hours per day on an average, for healthy adults, is as near the proper amount as we can come in a general statement. Children who are growing require more, because in them the proportion of food which ought to be assimilated is greater, and old people who are in the decline of life, somewhat less, or at most no more. Those who are engaged in mental labor need a full proportion of sleep, at least as much as those who are engaged in manual labor; but if they are not careful they will not get as much. They should relax their severest mental efforts towards the close of the day, and occupy the last few hours, before retiring, with easy efforts, or recreation. This will allow the action of the brain gradually to subside, and us to sleep at the proper hour.

In the next place our sleep must be regular as to time and quantity. We should have a regular hour for retiring and rising, and nothing but the most urgent necessity should cause us to deviate from them. What we are accustomed to do at a regular hour in the day soon becomes a fixed physiological habitude, whether it is eating, drinking, sleeping, or anything else, and the desire for it returns at that hour with the regularity of a clock. Not only the desire for it regularly returns at that time, but such a physiological condition occurs as renders us then best adapted, or in the best condition, to perform the function. If it is now performed, it is performed in the best manner that it can be, and will yield us the most benefit, with the least disturbance to other functions, which we are capable of receiving from it. But if performed at another and irregular hour, one in which we are not accustomed to perform it, this perfect physiological adaptation does not occur; the function is consequently not so well performed, we therefore receive less benefit from it, and other functions are more disturbed. The application of this principle to the times of eating and drinking, has been before noticed. It is equally valuable in its application to sleep. It is highly important that the hours of retiring and rising should

be as nearly as possible the same every day. If we are in the habit of retiring at a regular hour, there will be a constant recurrence at that time of that physiological condition which will render us best adapted to profit by sleep, the important function will be performed in the best manner, we shall receive the most benefit from it of which we are capable, with the least disturbance to other functions. But if we retire at irregular hours, this physiological condition will not occur, hence the function of sleep will be imperfectly performed, we shall receive less advantage from it, and perhaps other functions will be disturbed. It will be best in all respects to have regular hours for sleep. Taking into consideration all these things,—considering that sleep should be at regular hours, early in the night, and on an average seven hours in duration, the following rule is perhaps near enough correct for all practical purposes. *Retire regularly and punctually at nine o'clock, sleep seven hours, and rise without fail at four,—certainly as soon as five.* If circumstances render it convenient, it is undoubtedly better to retire at *eight*; and on no condition, if we can possibly avoid it, should we sit up beyond ten. But whatever be the hours chosen, let them be scrupulously observed: the earlier after dark the better, but regularity above all things. One other remark; on a proper general regimen, you will require much less sleep than you do now. Ascertain by enlightened experiment the exact amount which you need, and then never exceed or fall short of it. But whatever may be this amount, it is certainly not necessary to lay in bed a longer time than you sleep. This habit should never be indulged. It wastes time, is debilitating and injurious. Lay in bed as many hours as it is necessary for you to sleep, and no more.

Again, our beds should engage our special attention. The surrounding circumstances amid which we spend so many hours of our existence, cannot be unimportant in their influence; especially as during sleep we are much more susceptible to the action of injurious influences. Feather beds are common, but they are pernicious. On account of their being extremely bad conductors of caloric, they retain and accumulate the heat around the body, so as to weaken, and in some cases destroy the functions of the skin, and greatly debilitate the whole system. Colds and all manner of diseases follow. In short, they produce all the evils of excessive

clothing and highly heated rooms, being so soft and light, they suffer the body to sink down into them until they come in contact with almost every side of it, and render the evil and discomfort intolerable. Those who are accustomed to them would of course be in a great measure insensible to this, but let the author now get into a feather bed, and he would not be able to sleep one third of the night. It would be purgatory to him ! So it would be to others not accustomed to them. Besides, the feathers contain a certain amount of animal matter which decays, or putrefies, and exhales an abominable odor, which taints the atmosphere of the bed-room, and is enough to *sicken* any one accustomed to sleeping on sweet and fragrant vegetable beds. The air of many fashionable bedrooms in the morning is foul enough, one would suppose, to breed a pestilence. Because one long accustomed to a noxious exhalation cannot smell it, does not prove that it does not exist. Another reason why we should not use feathers, is their expense. What is the use or propriety in squandering money upon pernicious things, when you can have those which are incomparably better almost for nothing ? Decidedly feathers ought never to find a place in the house of a civilized being !

Corn husks, picked as soon as ripe, and carefully dried, make the best and most delicious beds. It seems *incredible* that any one accustomed to their coolness and fragrance, should ever think of returning to noxious, heating, and disagreeable smelling feathers. Clean sweet straw, and cotton or other vegetable mattresses, make excellent beds. The thorough physiological reformer will abandon feather beds and pillows forever. If you wish to roll and sweat on them through the summer nights, and get up from them in winter to take cold the first time you step out, do so ; but remember that God will bring you into judgment for the violation of his laws. The principal objection which will be urged to the proposed change is the inconvenience of sleeping on hard beds, and perhaps that straw, etc., is not warm enough for winter. But the inconvenience will last but a few nights, and you can sleep as warm as is healthy and comfortable on the beds above recommended. The author has slept on them constantly for years, without the least inconvenience, but with the greatest possible comfort, and even luxury. Don't condemn till you try.

The same reasons which would forbid excessive clothing, should forbid too many clothes upon the bed. Many, from habit, sleep under, and think they must, two or three times as many bed clothes as is necessary or proper. This is highly pernicious. Habituate yourselves to sleep under as few clothes as you can, and sleep comfortably warm. More than this is evil. Also, let them be of such a nature as not to exclude the air. We have seen that the air should constantly come in contact with the skin. In order to permit this during that large proportion of our time which we spend in sleep, the bed clothes should be of such a nature that while they retain the heat of our bodies sufficiently, they will not wholly exclude the air. Of this nature are woolen blankets, which are probably the best bedding to be had. They are slow conductors of heat, and therefore retain the warmth of the body while they permit the air to penetrate them, and come in contact with the skin. But quilts, filled with cotton batting, although very warm and light, are nearly impervious to the air; they are, therefore, inferior to woolen blankets.

Sheets should be of cotton, or linen, never of woolen, which should not be suffered to come in contact with the skin, for reasons before given. Cotton for winter, and linen for summer, would be best. They should also be thoroughly aired during the day. After rising in the morning, let them be taken from the bed and hung over the backs of chairs, or in some other position where the fresh air may have free access to them; open the windows of the bedroom, and in this way let them hang till night; then wash them once a-week, and in this way you will have fresh, sweet beds to sleep in every night.

There can be no more pernicious practice than that of *eating* immediately before retiring to sleep. Never retire soon after eating, or eat before retiring. Nature has appropriated the hours of sleep to the performance of one great function—*assimilation*; and the performance of another at the same time, except such as are absolutely necessary to sustain life during sleep, greatly interferes with this. Digestion was designed to be performed when awake, and can be properly performed at no other time. If we eat immediately before going to sleep, digestion will interfere with the legitimate purposes of sleep, and sleep will interfere with digestion. Neither

can be properly performed. As it takes on an average four hours to digest a meal, there should be at least this interval between our last meal and the hour of retiring. If this precaution is not observed, disturbed sleep, unpleasant dreams, impaired digestion, imperfect rest and restoration of the body and mind, and a thousand other evils, will be sure to follow. For similar reasons drinking before retiring is bad. Avoid it.

Seventh, *sexual intercourse*. This is a delicate, but very important subject. The fastidious, if they need no information upon it, may pass over this paragraph. The only legitimate design and end of sexual intercourse is to produce offspring. Pleasure was connected with it, in order to secure its performance, and accomplish its object. The various organs and faculties of the parents are transmitted to the child, with all their peculiarities and conditions. The perfection with which they are transmitted depends upon their degree of activity at the time of parentage; the more active they are at that time, the more perfectly will they be inherited. Hence, in order to secure perfect offspring, it was provided that during the act of parentage all the organs and faculties of the body and mind, in both parents, but especially in the father, should be stimulated to the highest possible degree of activity. Of course a corresponding reaction must afterwards take place.

Now, it is impossible that such violent or intense vital stimulations and reactions should occur, without an immense expenditure of nervous or vital energy on the fund of life. In point of fact, no act or function is so exhausting to the whole system as this. If indulged in to excess, no practice can possibly be so debilitating, depraving, and destructive to all the organs and faculties. Probably more of the nervous fluid or influence is expended in a single sexual crisis, than would suffice to carry on all the ordinary vital operations, perhaps for days. If it is indulged in daily, or even weekly, the deluded subject need not hope for health or happiness. No matter how perfectly he obeys all the other laws of his being, if he transgresses in this particular, he can derive little or no benefit from his obedience. *Once in four weeks* is as often as the most robust laborers should ever dare to indulge; the feeble and diseased must frequently abstain wholly, for years together. Nature commands this, on pain of horrible disease and death.

It is possible for both sexes to produce the sexual crisis, when alone, which is called self-pollution, or masturbation. This is probably practiced more or less by the majority of the unmarried, especially males; and by many to a most destructive and damning extent. It is unnatural, and in every respect much more injurious than sexual intercourse between husband and wife, for reasons which we need not stop to specify. It is sapping the foundations of health and life in millions of the human race. It is the very worst possible form of nervous stimulation. Its effects are truly awful. It produces or aggravates nearly all the diseases and infirmities—the aches, pains, and deformities—to which the human race are subject. Young men and women are dying from this sin by thousands every year. When I hear one complaining of disease, I read on his brow the shameful mark of beastly sensuality. For shame! either hide your head, or purify your body and soul from this vice. If you will not resolve to do this, and *do* it, then farewell health and life. Anything that I can say to you will be useless. Better close this book, and go and die in solitude, a polluted outcast.

But if you will reform and live, you may derive immense assistance by following the regimen indicated by this work. It will help to subdue perverted and depraved passions more than almost anything else. The free use of cold water in bathing will be of the greatest assistance. But I have no space to enlarge. I would simply advise all to read, without delay, “Fowler on Amativeness,” or “Graham’s Lectures to Young Men,” or both. Be assured that the importance of the subject cannot be over estimated. Study the laws which govern the exercise of the sexual passion, and obey them. The evils of transgression cannot be magnified.

CHAPTER XVI.

MEDICINE AND ITS EFFECTS.

WHAT we have written so far, has been designed principally for the use of those in health, or comparative health; but we cannot permit this work to pass from our hands, without giving a word of caution and advice with regard to the use of medicine, now so universal. Medicine was no doubt formed, constituted, and endowed with its properties, with express reference to the foreseen consequences of physiological transgression, viz., abnormal and diseased action in the human body. It is often useful when disease has been once induced in the system, and will not only give relief, but frequently facilitate cure. All this we do not wish to deny, and even admit that the subject of medicine, its uses and effects, should be thoroughly studied, and, perhaps, that the office of physician is a legitimate and necessary one. But still we must insist that the *healing art*, as it is called—the art of administering drugs and medicines for the removal of disease—has been unduly and unreasonably magnified and over estimated in its efficacy and importance. Medicines are useful in curing disease—this we do not deny—but they are supposed to be a thousand times as efficacious for this purpose as they really are. In point of fact, the real power of medicine for good is extremely limited, while the evils resulting from its injudicious or too frequent use, are numerous and enormous. We solemnly believe, that as medicine has heretofore been used, it would have been much better for mankind if a particle of it had never existed. The evils of its abuse have much more than counterbalanced all the benefits which it has conferred.

The indifference which it has caused to the laws of health, and the true means of preventing disease, by promising a speedy and easy cure, is an evil of sufficient magnitude to counterbalance all

the good it has ever done, to say nothing of the direct evils of injudicious and habitual drugging. Physicians have turned their attention solely to the use of medicine for curing disease, without bestowing a thought upon the means of *prevention*, or upon the subject of curing by means of a regimen founded upon the organic laws, and wisely adapted to the circumstances of the case; and the people have imitated the physicians. The blind have led the blind, and both have fallen into the ditch.

“An ounce of prevention is worth a pound of cure.” The first and most essential thing is to preserve health and prevent disease. This can be done only by an obedience to the laws of our being, the way of which we have endeavored imperfectly to point out in the foregoing chapters. But if disease has been induced, by whatever cause, the next thing is to endeavor to cure it. This is to be done mainly by regimen; but medicine may be made more or less useful for the purpose. Still, as it is liable to great abuse, it is extremely uncertain in its action, frequently causes immense injury, and always produces more or less evil, however skillfully it is employed: it should be used as seldom as possible, especially should we avoid its frequent or habitual use.

Medicine can produce no direct cure. In and of itself it can go no way towards healing a diseased body. It is only by means of the recuperative powers with which the vital economy is endowed, that we are enabled to recover from disease. Let this be remembered, that medicine, by its direct effects, or by its own power, never can produce a cure, or even commence one. How then does it operate upon, and effect the living organism? First, *Medicines are poisonous, or anti-vital in their tendency*. In their effects they are opposed to vital action, and injurious to the vital organism. If received into the vital economy in any quantity, and retained for any length of time, they will destroy life; but the vital organs are endowed with beautiful instincts, by which they are enabled to perceive the presence of any injurious substance. They instantly give the alarm, and the vital powers are at once aroused to energetic, and, if necessary, to convulsive efforts to expel the offending substance. This reaction, so to speak, of the vital powers, or their convulsive efforts to expel an injurious substance from the vital economy, is often so violent as to cause death, even before the

direct and proper effects of the poison are hardly perceptible; as though a man should exert himself so violently to extinguish a fire which would otherwise consume a house in which he was confined, and consequently destroy him, as to cause his own death before the fire had injured him. Now, it is evident that in this energetic and convulsive action of the vital powers, foreign and morbid matter, which was before in the system, producing derangement and disease, might be expelled along with the poison which produced the paroxysm. For instance, suppose the stomach to be loaded with morbid matter which it cannot get rid of, and which obstructs its action, if we take a proper quantity of a substance which will produce a violent reaction in the stomach to expel it, it is evident that the morbid matter may be expelled along with the poison. In this case the medicine, by its direct effect, has produced no cure; but has only removed an obstruction which interfered with the function of an organ, and thus permitted the organ, by its own inherent energies, to remove normal action, and restore the injury previously done. In fact, the drug being anti-vital in its tendency (for by this property only did it produce the spasmodic effort), by means of the violent and unnatural action which it produced in the stomach, has still further weakened and injured that organ, so that it has produced injury rather than benefit. However, the morbid matter is removed, and it is frequently worth while to submit to the inevitable evil for the sake of the incidental benefit. The vital energies may now go to work, and repair, as far as possible, the injury done.

Nature is economical of means of expenditure. If the presence of a poisonous or anti-vital substance will not immediately and seriously endanger the welfare of the system, or if it can be removed by means of the natural excretory organs, the vital instincts will not risk the danger and injury of a violent spasmodic effort like vomiting, but the offending cause will pass along, and perhaps be expelled by an instinctive and energetic effort of the bowels. In purging, the muscular action of the bowels is increased, and also the liquid secretion, in order to dilute and flood away the offending substance, and protect the delicate tissues; but in this operation, any morbid matter which happened to be present would be removed as well as the poison; not only so, but the liquid secretion of the bowels, which was instinctively increased by the means and for the

purpose abovementioned, is a natural and constant and important excretion for the removal of waste, and effete, and any foreign matter from the body. If this excretion has been suppressed, and the body become loaded with foreign or morbid matter, which causes disease, then, when it is increased by the action of the drug in the way abovementioned, this matter would be of course removed, and the system enabled to restore itself. In this case there has been no direct benefit produced by the medicine, but on the contrary, the vital energies have been weakened, and the organs injured, by the violent instinctive efforts which they have made to protect themselves. All the benefit produced is the removal of the morbid matter, so that the system is now at liberty to recover itself by its own powers.

In the same way other anti-vital substances will stimulate the functions of other excretory organs to protect themselves and remove the poison from the system, and in this way will tend to purify the body, and allow it to regain health by its own recuperative energies; but this process inevitably produces evil, and is only to be tolerated in certain cases for the incidental benefits which occur. It is a great law of the vital economy, that whatever artificial or unnatural means are employed to stimulate the natural functions of any of the organs, or to produce any extra-natural or abnormal efforts, such as vomiting, inevitably produce injury. They waste vitality, or the fund of life, weaken the organs, tend to deprave the functions and destroy the natural instincts which warn against danger, and are followed by reaction and torpor of the stimulated functions, which, as a general thing, more than counterbalance any benefit which can possibly be produced. The more such stimulation is resorted to the less able the organs become to perform their material functions without it. The bowels of those who are constantly taking physic soon become unable to perform their functions without the stimulus of a cathartic, and so of other organs. No greater physical calamity can happen to a human being than the production of such a necessity, and the continuation of such a habit of constant drugging. The effects produced are, as we have seen, simply the vital reaction against a poison, or the instinctive efforts of the system to protect and free itself from a drug which would otherwise greatly injure or destroy it. When it

becomes necessary to resort to such means to make the organs act, especially if this necessity becomes habitual, our case is deplorable indeed. Not only is evil produced in the ways abovementioned, but if we habitually take a poison, soon the instincts which warn the system against danger lose their integrity, wholly or in part, and portions of the drug are permitted to pass into the general circulation unchallenged, and thence to be distributed to all parts of the body to do their deadly work; or if the functional stimulation is still to be accomplished, it must be by increased quantities of the medicine, followed by still greater evils. If the organ or function is constitutionally weak or debilitated, it is particularly injurious and dangerous thus to stimulate it.

Again, medicine may have the effect to change the location of diseased action. *Disease*, as was shown in chapter first, consists in the abnormal action of, or of abnormal action in, some one or more of our physical organs. This diseased action is sometimes general over the system, but more commonly confined to particular parts or organs. When it becomes located in a particular part, other parts seem to be protected by this, which acts as a kind of safety valve. If this location is upon an important or vital part, the disease is correspondingly severe, injurious and dangerous. Now, if we apply a medicine which will produce an intense vital or diseased action in another, and less vital and important part; as, for instance, a *blister*, or medicine to make any other sore of sufficient intensity, the diseased action will be withdrawn from the diseased organ or part—which will thus be relieved and enabled to recover—and concentrated in the blister or sore. In a similar manner, other medicines will remove diseased action from one place to another. But the disease is not cured; it has only changed its location. If from a more to a less vital and important part we are benefited; if the reverse, we are injured. In this way a physician is sometimes said to cure a patient, but another disease immediately sets in and perhaps kills him. In this case, there was no cure, but only a change in the location of the disease.

This being an unnatural process, produced by poisonous agents, must inevitably produce evil, as shown under the preceding head; and the benefit must be quite limited, uncertain and temporary at the best; and if the disease is removed to a more vital organ, no

benefit, but injury or death, will result. Under the most favorable result, when a perfect cure is supposed to be produced, as the sources of the diseased action, the causes which manufacture it have not been touched, it is liable to locate again immediately in a more dangerous place, and the last state of the patient become worse than the first. Unless the source of the evil is struck, as the old doctor struck the gin-bottle, with his cane, and dashed it from the sideboard, you may change the location of the disease a thousand times, and a thousand times it will return; while you, by your drugging, will constantly grow weaker and less able to cope with it. If this is an interesting, profitable and happy way in which to spend your lives why, then go on in it; but be sure not to murmur!

Again, some medicines seem to have the property of exciting or stimulating the nervous system, and thus increasing the intensity of the vital actions. But, as we have before shown, all such stimulation, although it gives a present delusive feeling of strength, tends inevitably to weakness and ruin. The stronger the stimulation, the greater the injury. Medicines are the strongest stimulants which can affect the system; therefore, their habitual use is the most pernicious. It is bad enough for a person to live under the habitual stimulating effect of exciting food, such as *flesh*; but it is speedy ruin and death for him to live under the habitual stimulation of a powerful medicine. Yet, how many are under the almost constant influence of medicine! Their daily habits are so contrary to the laws of nature, that their bodies are constantly filled with disease; and rather than cut off the source of the evil, by a thorough physiological reform, they resort to habitual drugging, in hopes to lessen it. Some, by excessive alimentation, produce dyspepsia; and rather than lessen the quantity of their food, they will apply a daily stimulus to the digestive organs, in the shape of a dinner-pill, a glass of wine, or something of the kind. The food of some is so improper as to cause constipation; and rather than correct their diet they will swallow cathartics every week. Others, by these and other transgressions, produce other diseases; and rather than correct their habits, or deny their passions, will resort to the infallible dose as often as they feel inconvenience.

Nothing can be more destructive than this practice. The habitual

transgression, and the disease which it causes, are the source of untold evil; but the means resorted to in endeavoring to remove the disease (drugging), is, if possible, more destructive still. No practice can waste vitality more rapidly, or cause more painful and fatal diseases; yet no practice is more common. Most families keep medicine in their houses, and take it themselves, and feed it to their children, with almost as much regularity, and sometimes with nearly as much frequency, as they take their food. If they are sick, instead of referring their sickness to the true cause, they suppose it came because they had not taken medicine enough, or had not taken it in due season. What immense quantities of patent nostrums are used up in this way! And who can estimate the amount of evil which they produce! It is absolutely incalculable.

Our first duty is to prevent disease, or preserve health, by strict obedience to the organic laws. This we can almost always do. There no need to be any, or scarcely any, sickness or disease in the community. But if we have once induced its transgression (and it is never caused by any other means), the next thing is to cure it as speedily, and with as little injury to ourselves as possible. If it is acute and violent, it may be necessary to resort to medical treatment, under the direction of a physician. But if it is chronic, and not sufficiently violent to endanger life immediately, little or no medicine should be used; but we should at once adopt a proper regimen, and faithfully persevere in it. Cure will be almost certain; relief, absolutely so. Perhaps, upon commencing the regimen, it might be advisable to take a single dose of proper medicine, but it should not be repeated. Where a chronic invalid has been long in the practice of habitual drugging, perhaps it will not be always safe to break off entirely, at once; it should be done gradually, but certainly done. In cases of acute disease, which are not very violent, the cure is much better effected without medicine than with.

But especially where there is no particular disease, only a fear that there may be, should medicine be avoided as you would avoid a serpent. It is poisonous in its nature, always produces evil, and seldom any good. Taken habitually, it will cause the diseases which it is taken to prevent, or cure.

It is not a part of our design to discuss the comparative merits of different systems of medicine; we would discard them all as

unnecessary, and depend entirely upon obedience to preserve health and prevent disease. But if medical treatment is to be resorted to, it seems to us that the *water cure* is the one best adapted to the purpose, and one which produces the least evil of any. In skillful hands, it can be made to answer every purpose, and no bad effects will ever result; or, if ever, at most, very seldom. No doubt it is destined soon to supersede the use of drugs entirely. It is almost infinitely to be preferred. But still it is infinitely better to prevent disease by proper regimen, than to be cured even by *hydropathy*. But if a disease is to be cured, *hydropathy* against the world, say we.

I have, in my mind, cases of chronic disease, where the subjects of it have been in the constant and almost daily habit of drugging for many years. They have swallowed immense quantities of all kinds of medicine, but they have not been cured; on the contrary, they have been continually growing worse and worse, and weaker and weaker. Have they lost their faith in the efficacy of drugs? Not at all; their confidence is, if possible, stronger than it ever was. Notwithstanding they have been trying the experiment for years, and have uniformly failed, they still believe, with the most undoubting assurance, that medicine can cure them. Indeed, they never had a single doubt upon this point; a suspicion to the contrary never flashed across their minds; and they labor in the cause, with the courage, devotion and perseverance of a hero. No expense, or effort, or sacrifice is spared. They will manfully swallow the most nauseous and disgusting mixtures, without a grimace. They continue religiously to believe, in spite of their numerous failures and disappointments, that there is a medicine adapted to their case, and which would produce a cure, if they could only find it. True, they have used a hundred kinds, an hundred times over, without the least permanent benefit; but they are not in the least discouraged: they expect soon to find the right kind, and be healed. Strange that their faith in the efficacy of drugs has not been shaken by a twenty years trial and failure: would they persevere in the trial of a physiological regimen, as long, with no more encouragement? I would ask these invalids, whether they are any better than they were ten or twenty years ago? If not, what good has all their drugging done? Do you find yourselves any stronger, or more

free from disease, at the year's end than you did at its commencement? Why not, then, try some other way? Why not give the system which this work recommends a fair trial, for at least, one year?

The truth is, you never can be cured by medicine, as you ought by this time to understand. It is out of the range of possibility. By your daily habits, you are constantly manufacturing diseased action in your bodies; and, as long as the cause continues the effect will assuredly follow. Stop the action of the cause, and you will prevent the effect. As well might you expect to purify a cistern by pumping, into which a foul stream was constantly running, as to expect to cure by drugging a body into which you were constantly pouring the causes of diseased action. Purify the fountain and no pumps will be required to keep the cistern pure: cut off the streams of disease, and the body will soon recover and maintain its health. What folly to constantly poison it with abominable drugs!

But suppose you could cure yourself by medicine, as you suppose—which you never can—what then? How long would you remain well? Would not the same habits and course of life, which first caused your disease, cause it again? Why not? The same causes, under similar circumstances, always produce the same results. The transgression which formerly produced your ailments, will infallibly produce them again, cure yourself as perfectly as you please. What then is the great use of being cured? If you do not reform in your life you will not stay cured, cure yourself as many times as you please. It is impossible that you should. As long as you continue to manufacture disease by your daily habits, you will be diseased, take what remedies you please. Many medicine lovers attach great importance to being *cured*, when they are morally certain to be as sick the next day or week as they were before. What is the use of such a *cure*? It costs more than it is worth.

But suppose medicine to be efficacious in the cure of disease at first, how long will it remain so? Do not all habitual druggers know that it will soon lose its medicinal properties, if constantly taken, and acquire what is called a "second nature?" For this reason, invalids, who are habitually dosing themselves, are forced

frequently to change the drug. One kind soon becomes useless, and they are forced to try another. But when a drug ceases to be medicinal in its effects, its injurious influence upon the vital organism is not in the least diminished, but rather increased. The evil which it produces is silent, but more effectual and deadly. The poison is then admitted, unchallenged, into the system, there, silently but certainly, to work the ruin of the constitution. How many diseases are mainly kept up from year to year, by the drugs which are habitually taken to cure them. They produce the evil which they appear to relieve. They are supposed to cure the diseases every day, but every day the miserable patients have the same diseases to cure ; and yet they will not learn wisdom !

Tea and coffee are medicines, and, taken habitually, produce medicinal effects. To the *tea drunkard*, the pain and suffering of his loathsome diseases, both physical and mental, are intolerable without the periodical relief afforded by the drug. But is this relief permanent ? is the cure effectual ? Why then do you have to continue the use of the medicine twice or thrice every day ? Are you any better off at the years' end, for all your drinking, than the water-drinker ? No ; you cannot leave off your tea for a single day, without the most intolerable sufferings. The truth is, your tea-drinking mainly caused, and keeps up, those diseases which it appears to cure every morning, noon, and night. The painful symptoms, which are but the cries of wounded, outraged nature, and which we ought rationally to heed, are smothered by the narcotic drug ; the faithful instincts and sentinels of life, are put to sleep by the paralyzing opiate, so that they cannot raise their voices against the violence which you are doing to your bodies ; but the evil goes on under such a treatment, with constantly accumulating velocity. The daily use of the medicine causes and keeps up the diseases and pains which it is taken to relieve and cure. The same remarks may be made concerning the use of tobacco, or any other narcotic,—such as opium ; and the same is true of any kind of medicine whatever. If taken habitually it causes and keeps up the diseased conditions and symptoms which it is taken to relieve and cure. If a cathartic is taken to relieve constipation, the evil will soon return with increased power ; and every successive dose will but aggravate the difficulty, until finally the bowels will be

destroyed, if this suicidal course is persisted in. Everybody knows this.

Would that I had the tongue of an angel, that I might impress upon the minds of all the evil and ruin of habitual drugging. No practice can be so destructive. If a poison—and all medicines are more or less poisonous, most violently so—is constantly introduced into the system, the expenditure of vitality, and waste of the fund of life, in protecting the organs against its influence, is most enormous. Nothing can be so enervating and debilitating; and nothing will lead so rapidly to dotage, imbecility, and death. And nothing will tend so thoroughly to derange and disease all the vital operations, and to deprave the whole body, in all its instincts and faculties. For a person daily or weekly to load his system with disease, by excessive alimentation, eating pernicious food, or any other form of physiological transgression,—and then endeavor to remove the evil by habitual drugging,—vomiting, purging, or what not,—is the worst kind of self-murder. Such a man is guilty of suicide of the most disgusting and abominable kind: he ought to wear a straight jacket, and have cold sponges put on his head.

To chronic invalids in particular: do not depend upon drugs to cure you; for they can never do it. If you habitually use them, they make you constantly worse and worse. They aggravate all the evils which they appear to remove. Abandon them, and adopt a proper regimen, wisely adapted to your case, as soon as possible. Persevere in this course, and you will soon be well, and remain so; at least, as well as it is possible for you to be. True, the evil consequences of previous transgression, and violence to the laws of life, cannot all be eradicated from the system; but you will avoid incurring any more evil, and diseased action will mainly subside. This course is the only hope you have. Neglect this, and wo unto you; embrace it, and you may yet live and be happy.

CHAPTER XVII.

TREATMENT OF THE LUNGS.

THE *lungs* are among the most important organs in the system. Upon the proper performance of their function depends the welfare of the body and mind. If they become diseased, the evil is greater and more surely fatal than that consequent upon the disease of almost any other organ. *Consumption*, as it is called, is perhaps the most dreaded and fatal enemy to human life. *Asthma* is one of the most painful forms of disease. But pulmonary affections, before they have progressed to confirmed consumption or asthma, and even any material suppression of the function of the lungs, are more decidedly injurious and dangerous than almost any other thing. Therefore, a knowledge of the principles which ought to govern the treatment and use of these important organs, is of the highest consequence to our well-being.

The principal use of the lungs is, to furnish the requisite supply of oxygen, in the form of atmospheric air. A considerable portion of the food consists of carbon, which is not designed to be assimilated, and never becomes a part of the living organism. This is intended to combine chemically with oxygen in the lungs, and, indeed, in all parts of the body, forming a kind of combustion, to supply the animal or vital heat. If there is a deficiency of oxygen, the carbon cannot all be consumed, but will remain in the body, to oppress and disease it. Perhaps there is no cause more prolific of disease, than a superabundance of carbon in the blood. This must occur when there is too much carbon in the food, too much food taken, or when there is a deficient supply of oxygen. Although oxygen is furnished to the blood, to some extent, by the external skin, yet the lungs are the principal agent of supply. Pure atmospheric air being taken into the lungs by inspiration, a portion of its oxygen passes through the membrane which separates the air cells

from the venous blood; part combining with its superabundant carbon, forming carbonic acid gas, which is expelled from the body; and part uniting with red globules, to be carried to all parts of the vital domain, and combine with carbon when and where it is needed, under the direction of the vital laws and instincts. The air thus deprived of a portion of its oxygen, is expelled from the lungs, together with a quantity of carbonic acid gas, by the succeeding expiration. This process is constantly going on during life, and constitutes what is called *respiration*, or breathing. It is a function of such vital necessity, that its entire suppression, for only a few minutes at a time, will cause death; and its partial suppression for any length of time, by whatever means it is done, will inevitably cause disease.

In order to secure a full supply of oxygen to the blood, the lungs must be in proper condition, and we must be constantly surrounded by abundance of pure, fresh air. The necessity for abundance of pure air we have before insisted upon; and its importance cannot be too strongly stated. If the air we breathe is deficient in oxygen, it cannot properly supply it to the blood; and if it is loaded with impurities, it cannot properly remove the exhalations from the lungs; besides acting as a poison, from the absorption of its foreign deleterious matters. In either case, the blood remains impure, and the system suffers. It was designed that we should breathe fresh air at every inspiration; and accordingly an immense ocean of it was prepared, and so constituted that it becomes lighter by being respired, and immediately upon expiration rises above our heads, leaving the lungs in contact with fresh air constantly. We should never prevent this result. Our rooms must be large and well ventilated, and we must avoid breathing vitiated or impure air, as we would avoid a famine or a pestilence. It is certain suicide to deprive ourselves of a full supply of fresh air; and the greatest folly man can commit.

But a full supply of air will not produce the desired result; properly furnish the blood with the required amount of oxygen, unless the lungs are in the right condition, and are suffered or induced to act with the requisite vigor. They must respire a sufficient amount of air per minute, and be in a condition to appropriate the proper quantity of its oxygen. To do this, they must be in a

healthy condition, of a proper size, duly expanded at every inspiration, and act sufficiently rapid. If the substance of these organs is diseased, or the lining membrane in a morbid condition, no matter how much air is inspired, they will be unable to appropriate the proper amount of oxygen. If the membrane is in such a condition as to secrete a large amount of morbid matter, not only will it obstruct the passage of the air into, and out of, the air cells, but also the passage of the oxygen and carbonic acid gas through the membrane which separates the air cells from the blood; hence, when there is much morbid matter secreted in the lungs, the blood cannot be properly oxygenated, or purified. This occurs in asthma, colds, etc.

Again, if the air cells collapse, or close up, of course they can receive no air. This frequently occurs, and if carried to a certain extent, produce consumption. The lungs are like a piece of sponge, which may be crushed up in the hand until it occupies a small space. In this case the numerous cavities which it contains, collapse, and their walls approach each other. So, if the lungs are compressed for a length of time, more or less of the air cells collapse, their walls approach each other, and the lungs come to permanently occupy less space, or become smaller. Of course less air can be received into them, and less oxygen pass to the blood; and the closed cells will soon become diseased.

Anything which habitually compresses the chest, or prevents its free expansion, soon lessens the size of the lungs, and causes some of the air cells to collapse. At every inspiration, the ribs are lifted up in such a way that the diameter of the chest is greatly increased, and its size or capacity correspondingly enlarged; suffering the lungs to expand from their own elasticity. The air rushes in through the mouth to fill the vacuum, and is again expelled by the succeeding contraction of the chest. Anything which tends to prevent the full expansion of the chest, must, therefore, be most deadly in its effects. Tight lacing, or tight or heavy clothing over the region of the chest, which effectually prevents its free and full expansion, is most pernicious. The practice cannot be too severely reprobated by every lover of his race. The clothes should always be so loose, to say the least, that the chest may freely expand to its utmost capacity. He or she who neglects or infringes upon this rule, is a *self-murderer*. It would seem that no one but a *fool*,

or one distinguished for *stupidity*, could ever be guilty of the abominable practice of tight lacing, or, indeed, of lacing at all. But fashion makes such miserable slaves of the human race, that thousands who, but for this folly, would seem to possess *common sense*, will voluntarily and eagerly pursue a practice as certainly fatal as shedding their heart's blood. And these fools call themselves free!

But lacing is not the only thing which causes permanent contraction of the lungs, and collapsing of the air cells. For the chest properly to expand, it must be kept *straight*. If we habitually maintain a stooping posture, so that the upper part of the trunk is bent forward, over, or upon the lower, the chest cannot fully expand, and soon the lungs will be lessened in size, and the air cells begin, one after another, to close up. An erect posture, or a straight position of the chest, should always be maintained, at any sacrifice. If our occupation is sedentary, above all things, let us not acquire the habit of stooping, but keep the chest erect or straight, at all hazards, and under all circumstances, even though it should have to be tied in that position. A neglect of this precaution, is certain death, sooner or later.

The shoulders must also be kept back in their places, or they will tend to compress the lungs. If they are back to their proper places, so that the shoulder-blades be flat upon the back, and do not stick out like wings, the whole weight of the shoulders, arms and hands, which amounts to several pounds, will fall back of the trunk, and tend to open and expand the chest. But if they are brought forward, so that this weight falls before the trunk, it will constantly press upon, and tend to contract the chest, and crush in the lungs. If this weight falls behind, it will help us to maintain an erect posture; if before, it will act like a burthen upon the back, pressing us forward, and crushing in the chest and lungs. The trunk, therefore, must be kept erect, and the shoulders back, so that their weight, together with that of the arms and hands, may not tend to compress, but to expand the chest and lungs. This must be done, even though strong shoulder-braces should be necessary for the purpose. Better to accomplish it by natural means—by the use of the proper muscles—but better to do it by shoulder-braces, than leave it undone. It must be done in some way, at

all hazards. As a general thing, there is no difficulty, if we will but attend to it, in keeping the chest and shoulders in their proper positions ; and soon it will give us much the most ease and pleasure ; but some invalids may be under the necessity of using shoulder-braces, at least, for a time.

The diaphragm constitutes the natural floor of the chest, upon which the lungs and other contents of the chest rest a part of their weight. The diaphragm rests upon the bowels, or contents of the abdomen, which are kept in their places by the abdominal belts which form the front wall of the abdomen. In breathing the floor of the chest is pressed downwards, as well as the ribs upwards and outwards, letting the lungs expand in all directions ; and when the ribs are brought back to their first position, the abdominal belts also contract, forcing the bowels against the diaphragm, and the diaphragm upwards, thus contracting the chest, and forcing the air out of the lungs as you would exhaust a bellows ; but these belts frequently become weakened and relaxed, so that they cannot support the weight of the contents of the trunk, and keep them in their places. The bowels fall down forwards, leaving the diaphragm unsupported, which sinks down under the weight of the contents of the chest, leaving the lungs, etc., suspended by the windpipe etc. The lungs cannot properly act in this condition, besides being constantly irritated, and often inflamed, together with the windpipe and bronchia, by this unnatural suspension. Allowing them to be properly filled with air, the abdominal belts being relaxed, cannot contract so as to raise the bowels and force up the midriff, and properly exhaust them ; so that they suffer in every way by this state of things. In point of fact, this is a very common cause of consumption ; and the evil is necessarily immense, whether it terminates in consumption or not.

Relaxation of the abdominal belts is an evil which is much more common than is generally supposed. This must be the case where debility is so common. Especially among females is the evil almost general, and the effects peculiarly painful and disastrous. It is frequently the main cause of pulmonary disease, and even consumption, when its existence is not even suspected by the sufferer. In such cases, while it exists, there is no possibility of curing the lungs.

To cure relaxation of these belts, a correct general regimen, and consequent invigoration of the whole system, is the first requisite. The free and frequent application of cold water to the abdomen will greatly assist and facilitate the cure. It is also important to avoid bulky and weighty articles of food and drink. The less the stomach and bowels are loaded, the less they will press upon the weakened belts, and of course give them a better chance to recover. Let the patient confine him or herself to four or six, or at most eight ounces, of wheaten meal bread per day, together with an apple or two, or a glass of water, and observe the above directions, and in most cases cure will be speedy. But a good abdominal supporter, like those of Dr. Fitch, is sometimes necessary or useful, at least for a time. Make the belts perform their office if possible, and as soon as possible ; but if you cannot, by all means use a supporter.

But all the foregoing conditions being secured, the lungs being in health, and uncompressed, the chest kept straight and the shoulders back, and the abdominal belts able to perform their office—if the lungs are not sufficiently used in respiration, they will suffer together with the whole body. Although they act involuntarily to some extent, yet we may greatly retard or increase their action. The more the muscles are used—that is, the more exercise taken, or the more labor performed—the more food is needed, as we have before explained. This, of course, increases the amount of carbon taken into the blood, and hence the amount of oxygen necessary to convert it into carbonic acid gas. As this can only be supplied by the lungs, they must act more intensely—the inspirations must be deeper and more frequent, as they are. Nature has provided that muscular exercise or action shall be the natural stimulus to the lungs. The more of this taken, the more the lungs act. There is a perfect harmony and adaptation of part to part, and function to function, throughout the whole system. But a certain amount of exercise is necessary to the welfare of the body ; therefore the lungs were made to require this amount to stimulate them to the due and proper performance of their function. Hence, if there is deficient muscular action, there will be deficient respiration.

One essential condition, therefore, in securing a full respiration, is to take a full amount of exercise. Let it be of a kind that will

call into vigorous action as many of the muscles as possible, and hence secure an intense action of the lungs. This will also make the heart act rapidly, the blood circulate with increased rapidity, and thus bring it into frequent contact with abundance of fresh air in the lungs. There is no way of purifying the blood so efficient as this. The carbon which renders it thick and black, will be burned out, leaving it of the proper consistency, bright, red, and pure. Let it be remembered that abundance of muscular action is necessary to secure the proper action of the lungs.

If the occupation is sedentary, or if for any cause, or at any time, a sufficient amount of vigorous exercise cannot be taken, the evil may be partly remedied by making the lungs respire actively, by a strong voluntary effort. And it would be well for any one, but especially for those of sedentary habits, to regularly exercise the lungs in this way. Let there be a regular time for vigorous breathing, by a direct voluntary effort. Indeed, the sedentary can hardly do without this pulmonary exercise, and none need neglect it. Let the chest be straight, the shoulders back, the head erect, the mouth open, and then let the lungs alternately be filled to their utmost capacity, and well exhausted. Let this be done as rapidly as possible, and persevered in until considerable fatigue is felt. Of course those with weak lungs must begin moderately, as they can bear it. It should always be done, if possible, in the fresh air. Also, let the lungs be filled, and the air retained in them, and let the arms be thrown back violently until the back of the hands, and even the elbows, strike together; and with the lungs full, let the hands be struck upon the chest as hard as can be borne without inconvenience.

In this way the lungs will be fully expanded, and all the air cells forced and kept open, as was designed. The blood will also be made and kept pure, if these exercises are persevered in. In short, in this way we shall secure the proper performance of one of the most important functions in the body—respiration, and oxygenation of the blood. The most salutary results must follow.

If there is too much food consumed, and therefore too much carbon introduced into the blood, nothing will enable us to avoid so much of the evil which excessive alimentation tends to produce, as copious breathing. In fine, the amount of respiration must bear a proportion to the quantity of food taken, in order for the body to

remain in the best condition. A very large share of the diseases to which we are subject, arise from an excess of carbon in the blood. Let this be consumed by copious respiration. No method of cure is more effectual and salutary than the *breathe-cure*. Mr. Fowler states in the "Phrenological Journal" that he has broken up and completely cured a severe cold, in an hour or so, just by rapid breathing, or panting, continued until he began to perspire freely. In a word, the importance and absolute necessity, if we would enjoy health and vigor, of full and copious respiration, cannot possibly be over estimated.

Without doubt this important function serves other essential objects and ends in the vital economy, besides those already enumerated, such as furnishing oxygen to the blood, etc. *Electricity* appears to be an important and necessary agent in the vital operations. It seems to be the instrument or messenger employed by the brain to execute its mandates in all parts of the body. For instance, when we desire to move a voluntary muscle, say one that moves the hand or foot, the will puts in motion a current of electricity, from the brain along the proper nerve, which strikes the muscle, causing it to contract, and the limb to move. This operation exhausts a portion of electricity, or the nervous fluid which the brain possesses, which must be supplied from some source. Undoubtedly it is obtained from the respired air. It is proved that the atmosphere is an inexhaustible source of electricity. When air is inspired, a portion of its electricity is probably secreted or appropriated by the lungs, transmitted to the brain, and becomes nervous fluid. This is used in all the vital operations. It is known that the health and vigor, and activity of the body, and the perfection of all the vital operations, depend greatly upon the efficiency of the nervous influence—that is, upon the abundance of the nervous fluid. How necessary, then, that the supply of electricity should be constant and copious. But this can be secured only by constant and copious respiration. Hence, we see another important necessity for keeping the lungs in proper condition and activity.

The larger the lungs, the better condition they are in, and the more they are made to act, the more electricity will be secreted, and the more nervous fluid the system will possess. The more abundant the nervous fluid, other things being equal, the more vig-

orously will the muscles contract, and the more strength and efficiency will the body possess. Hence the larger, better, and more active the lungs, the greater the strength and efficiency. The uncommonly large size of the breathing organs, as compared with the size of the body, in the eagle and other strong birds, is without doubt the main cause of their amazing strength and powers of endurance. Let man come up as nearly as possible to the eagle, in the comparative size and absolute activity of his lungs, and he will imitate, to some extent, in his muscular actions, the prodigious strength and powers of endurance manifested by the muscles of the eagle and the condor; he would be an amazingly physical giant in power, with muscles of iron, and nerves of steel.

People endeavor to increase their strength and efficiency, and powers of endurance, by eating increased quantities of food; and by taking exciting and stimulating food and drink. This is all wrong. If they gain any present strength in this way, it is sure to be followed by corresponding weakness, and soon by permanent disease, and premature dotage and death. They exhaust the nervous fluid or influence, without furnishing the means of supply or replenishment. Nothing but debility and ruin can come of such a course. Rather let them increase the size, efficiency and activity of the organs of respiration; so as to secure the breathing of a large quantity of fresh air. The more the lungs are used, the more fully they are expanded; and the more rapidly they are made to act, (by proper means,) the greater will be their size and efficiency. The size and efficiency of any organs, are increased, in proportion to the amount of legitimate action or function which they are made to perform. The more air the lungs can be made to respire, the more electricity will be appropriated, and the more strength and efficiency and powers of endurance the muscles will manifest. And this increase of strength will be permanent, as long as the condition upon which it depends continues: it will not be followed by increased weakness, and disease, as in the other case. This is the most effectual and proper way of increasing the strength.

Since the mental operations depend more intimately, if possible, upon the nervous fluid or influence, than do the action of the muscles; it follows that large and active lungs, and abundant respiration, are necessary to the highest activity and strength of the mind.

The more air respired, the more strong and active the mind. Experience proves this. Breathe vitiated air only for a few minutes, and the mind becomes dull and stupid ; but breathe fresh air rapidly, and the mental vivacity will soon be increased an hundred per cent. This depends in a great measure upon the supply of electricity. In a room heated by a stove, the air is deprived of a considerable portion of its electricity. This is the main reason why it is not as healthy living in a stove room, as it is in the open air, other things being equal ; the lungs cannot obtain a full supply of electricity. The mind and body both suffer.

Let every one constantly bear in mind, that *respiration* is one of the most important functions in the body ; that the welfare of the system depends upon it, more than upon almost anything else ; and that large, well developed and expanded, healthy and ever active lungs, are absolutely necessary to its perfect performance ; as well as abundance of pure, fresh air. Let all aim to secure these conditions, in the highest possible degree of perfection. The lungs must be kept in health, first, by a correct general regimen, and obedience to the organic laws ; but especially by always breathing abundance of pure air. Second, they must be expanded, and kept expanded, to their utmost capacity. They ought to be filled with air at every inspiration, if possible. Third, the chest must be kept straight, the shoulders back, and the abdominal belts firmly in their places ; even though it should be necessary to use for the purpose shoulder-braces, and an abdominal supporter. Fourth, the lungs must be made to act with sufficient rapidity, and thus to respire a sufficient quantity of air, at any sacrifice. The main things to be observed with regard to the lungs are, to keep them properly expanded and active, and supply them with an abundance of fresh air. If these are observed, together with correct general regimen, there is not much danger of the lungs being diseased. If properly treated, they are less liable to be diseased than almost any other organ, on account of their great vitality. It is the height of folly as well as wickedness, to suffer with the asthma, or die with consumption.

CHAPTER XVIII.

CONCLUSION.

IN conclusion, we will briefly recapitulate our points. In the first chapter we have shown that disease is the result of a transgression of the organic laws. Man was not made to be diseased, and need not be. Sickness is not a chance affair, and not the arbitrary infliction of an immutable Providence. Our health is entirely within our control. If we obey the laws of God, we shall remain well and happy; but if we transgress them, and just in proportion to the magnitude, importance, and number of our transgressions, we shall be diseased and unhappy. As pain is the result of disease, we need not suffer pain. If we are diseased, by leaving off physiological transgression, the body will slowly recover its health, at least in a great degree; even hereditary diseases may be greatly mitigated, if not entirely cured, in this way: but while transgression is continued, no permanent cure can be effected.

In the second chapter we have spoken of the immense amount of physiological transgression, as indicated by the overwhelming amount of disease and suffering, and thence argued the importance of our subject. Disease is the monster evil of the times, and the great physical enemy of man; more especially is it so in this country. Few are well, and most are wretchedly diseased. The evil is rapidly on the increase, and physical ruin stares our people full in the face. He who can assist in rolling back this mighty flood, is one of the greatest benefactors to his country, and of his race. To accomplish this we speak.

In the third chapter we have shown that man is not naturally in any respect, or to any extent, a flesh-eater, but that he is designed and constitutionally adapted to subsist entirely upon *seeds* and *fruits*. He is, therefore, *graniverous* and *frugiverous* in his dietetic character. It follows that flesh-meat is unadapted to his character

or nature as an aliment, and, if used, the cause of great mischief, being a gross transgression of the organic laws.

Chapter fourth contains the *physiological argument* on this point. It specifies the physical evil and ruin which result from flesh-eating, and the physical blessings which flow from an obedience to the laws of our being in this respect, by eating only proper vegetable food.

Chapter fifth contains the *moral argument*. It shows the moral results of physical transgression, and the moral effects of obedience. Sin and mental suffering are among the former, and righteousness, moral purity, and happiness among the latter.

Chapter sixth shows that *tea* and *coffee* are active and virulent poisons, and among the greatest enemies to human health and life. They are narcotic, intoxicating stimulants of the worst character. The evil they are doing cannot be estimated, it is so great.

Chapter seventh shows that *tobacco* is an article of the same character, if not worse, and that *salt* is a useless poison, and that pepper, spice, ginger, mustard, vinegar, and other condiments are useless and pernicious in their influence. They should never be used.

Chapter eighth discusses the alimentary character of *fat*, *butter*, *milk*, *cheese*, and *eggs*, and shows that they are all improper articles of food: articles of which they constitute a part, such as gravies, cakes, pies, etc., are most pernicious in their influences when eaten.

Chapter ninth enumerates, in the order of their excellence or value, the substances which are proper for man's food. These, in their order, are as follows:—*Wheat*, coarsely ground, unbolted, and made into unleavened bread, by being mixed with pure water, and baked; *Indian corn*, *rye*, and *barley*, cooked in the same way; *rice*, *peas*, *beans*, *potatoes*, *buckwheat*, *nuts*, *fruits*, etc. These are the best articles of food.

Chapter tenth shows that man was designed to obtain his drink from the juices of fruit, eaten in its natural state, as a part of the meal. The best fruits are apples, pears, peaches, plums, cherries, grapes, strawberries, raspberries, blackberries, etc. Much water need not be drank.

Chapter eleventh is upon the *quantity of food*. Excessive alimentation is shown to be one of the greatest transgressions in the

world. No more food should be taken than just enough to properly nourish the body. From eight to sixteen ounces of wheat is sufficient; more than this is evil. The quantity of other food should depend upon its richness.

Chapter twelfth shows that but one kind of solid food, together with one kind of fruit, should be eaten at the same meal, and that there should never be more than three meals eaten in a day—generally but two. There should be six hours at least between the meals, and the last meal not later than six o'clock. If but two meals are eaten, eight a.m., and four p.m., are the proper hours.

Chapter thirteenth contains the *experimental argument*. Experience is shown to confirm the foregoing propositions and conclusions.

Chapter fourteenth states some of the advantages of the reform system. It is vastly more economical—would save much precious time—would tend to relieve the poor from the necessity of excessive labor—would emancipate females from the slavery of the kitchen—preserve the health of all—increase even gustatory enjoyment—make us much more efficient—make us independent, and secure us against premature dotage, and the infirmities of old age. It would increase our happiness tenfold.

Chapter fifteenth enforces the importance of *bathing, exercise, air, clothing, proper temperature, sleep, etc.*, and indicates the laws which should regulate and govern them all. These are important subjects.

Chapter sixteenth shows the bad effects of medicine, and the comparative uselessness and danger of drugging, especially of habitual drugging. Health should be secured, and disease removed, mainly by regimen. If the habits are wrong, it is impossible to be permanently cured by drugs.

Chapter seventeenth develops the proper treatment of the lungs. They must be well developed, fully expanded, and actively employed. This will secure them from disease, and preserve the whole body and mind in the highest health, strength, and vigor.

We will now close this work by briefly describing the voluntary habits and regimen proper to be observed by man, as indicated by the *organic laws*. He who would preserve his body and mind in the best possible condition, for the longest possible time, must

faithfully observe and obey the following rules during his whole life:—

First—Eat nothing but *seeds* and *fruits*, and those vegetable substances which nearly resemble them in character, such as the potato, etc. As wheat is the best article, let that constitute the main article of food, in the form of unleavened meal bread, together with some of the best fruit to be had, to serve for drink. Other articles may be used occasionally by way of variety. One kind at a time, with fruit, is enough.

Second—Eat two meals in a day—one at eight a.m., and the other at four p.m. Let each one consist of from four to six or eight ounces of bread, together with a moderate quantity of fruit, according to the occupation, etc. Nothing should enter the stomach at any other time, unless it is a little pure water, when thirst is experienced, but at such a time as not to interfere with digestion. No drink with meals. Let the food be eaten slowly, and thoroughly masticated: the drier it is the better.

Third—Rise as soon as five o'clock, and immediately wash and bathe the body thoroughly in cold water, and then wipe dry, and rub hard with a coarse towel, or flesh-brush. This must never be neglected. Before dressing, expand the lungs by repeatedly filling them to their utmost capacity, and then throwing the arms and shoulders violently back, striking on the chest, etc. This exercise should be repeated several times in the day.

Fourth—Hang up the night clothes and sheets to air through the day, and the day clothes through the night. Let everything which comes in contact with the body (which should always consist of, or be lined with, cotton or linen,) be washed at least once a week. The clothes must always be loose over all parts of the body, and never thicker than is absolutely necessary for the season.

Fifth—Always sleep in a large, or an open room, without fire, upon a straw bed, or mattrass, without pillows, or with very small and hard ones, and with just bed-clothes enough to keep comfortable, and no more. Never let a feather enter the house. Retire at nine or ten, or before, and sleep as soon as possible. Sleep from six to eight hours, and never lie in bed longer than you sleep.

Sixth—Labor hard, or exercise actively, in the open air if possible, *at least three or four hours a day*. If the occupation is seden-

tary, break the sittings, at short intervals, by brisk exercise that will call into action all the muscles. If writing or reading, stand as much as possible.

Seventh—Have regular hours for practising deep, full, and rapid breathing, at least for a few minutes at a time. At all times maintain an upright position; if possible, keep the chest straight, the head erect, the shoulders back, and the abdominal belts in their proper places. In fine, attend scrupulously to the proper exercise and expansion of the lungs.

Eighth; never raise the temperature of your rooms above 60 or 70 degrees. Avoid heating ~~very~~ ~~hot~~ ~~your~~ ~~limbs~~, by the fire. If you come in cold, warm very gradually, at a distance from the fire. Go without stockings, at least in the summer, and in the house.

Ninth; always be surrounded by abundance of pure, fresh air; and take especial care to breathe as much of it as possible. Frequently expose the whole surface of the body to a current of fresh air; and let the clothes be so arranged at all times, as to permit it to come freely in contact with the whole surface. Exterminate all offensive odors and exhalations in your vicinity. Expose yourself to the direct rays of the sun as much of the time as possible. Avoid the breath of a flesh-eater, as you would a *bohanupas*. Avoid all poisonous vapors.

Tenth; never taste of flesh, grease, salt, flour, tea coffee, tobacco, alcohol, heating condiments, or anything into the composition of which any of these enter. Never eat sugar or molasses, unless in small quantities, in proper food. Milk, cheese and eggs better not be eaten.

Eleventh; do not tax the mind too severely with study, or the body with labor. Avoid severe study during the evening, or within a few hours before retiring. Avoid painful and depressing emotions, and paroxysms of passion. Cultivate and exercise, as the most important object and end of your life, the intellectual and moral faculties of the mind. Let nothing interfere with this. Be cheerful and happy.

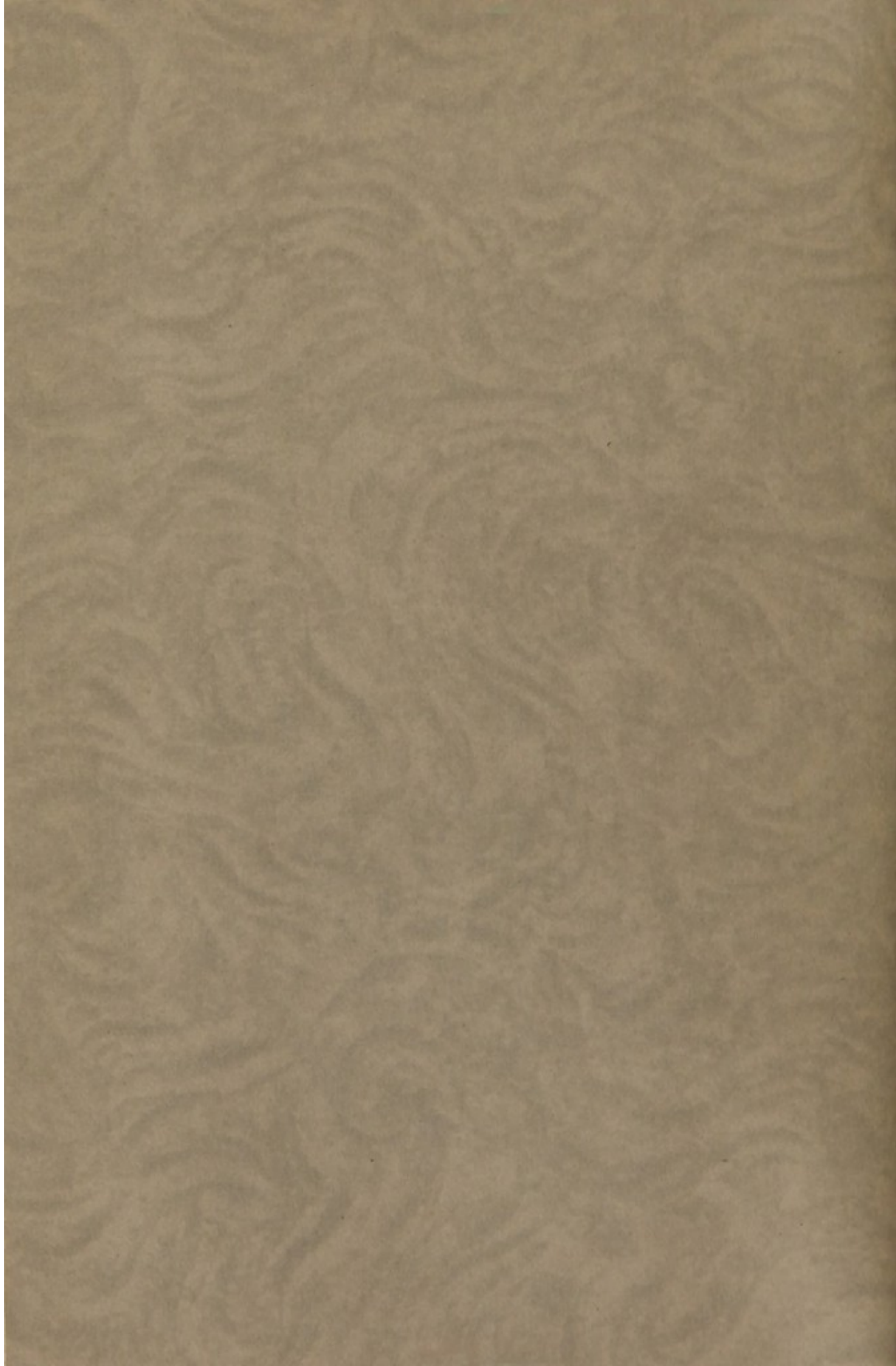
Twelfth; above all things avoid excessive alimentation, and excessive venery. Sexual intercourse must not be indulged, even by the robust, oftener than once in four weeks, under any circumstan-

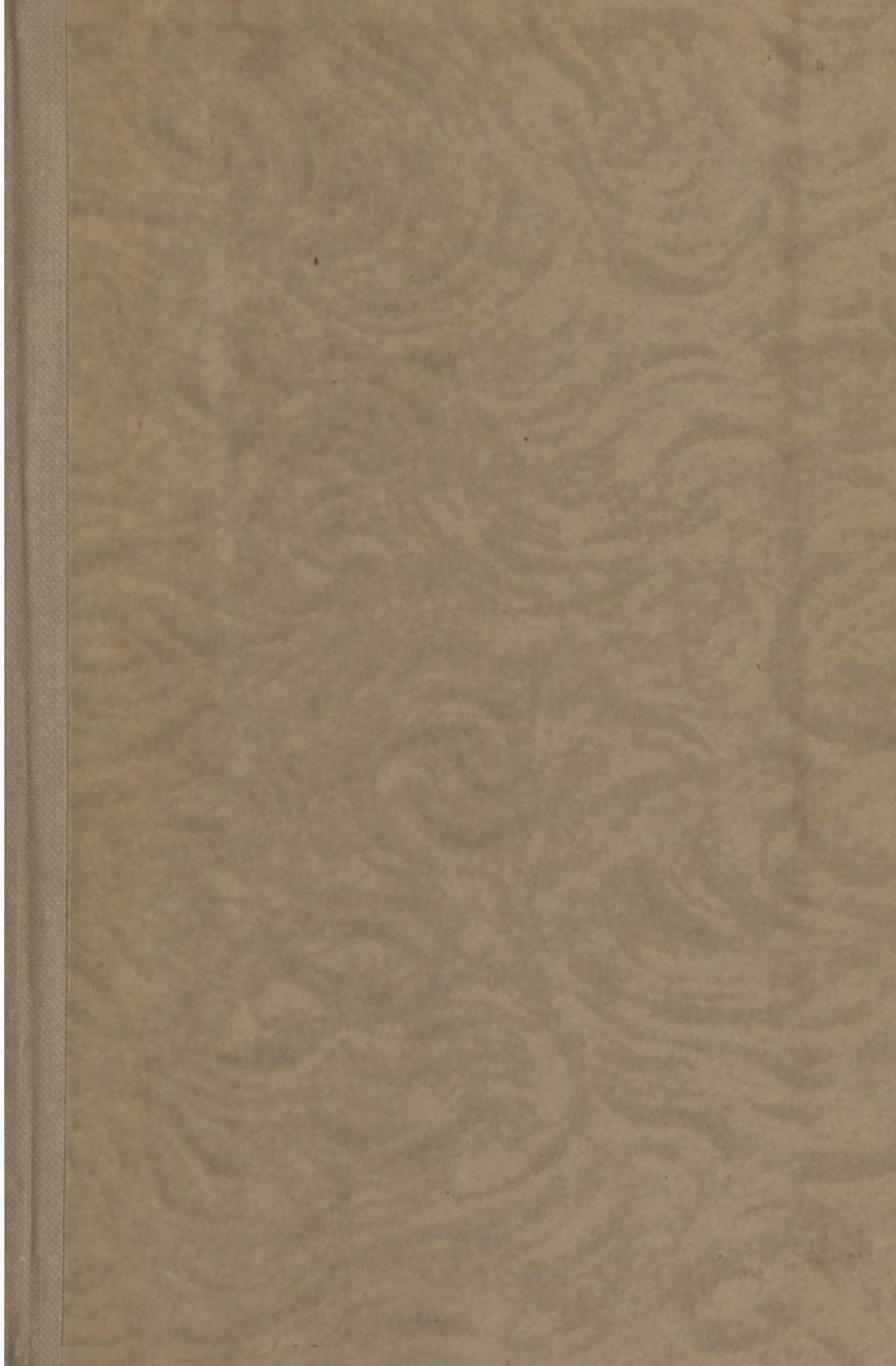
ces, on pain of death. Horrible ruin is the consequence of temerity, in this particular. Excess is the certain death of man's highest life. If this rule is materially infringed—especially if sexual excess is indulged—obedience to all the foregoing rules, will be of little or no use. Weigh your food, and never eat more than from eight to sixteen ounces (according to circumstances) of wheat, or its equivalent of other food, together with a moderate quantity of fruit, in a day. Eat but one kind of solid food, together with fruit, at a meal.

ERRATA.

- On page 3, last line, for "*rescue*," read *secure*.
 " 181, fifth line, second paragraph, for "*such*," read *soul*.
 " 207, third line, for "*presume*," read *perceive*.
 " 213, eighth line from bottom, for "*This*," read *Thus*.
 " 233, third line, third paragraph, for "*on*," read *or*.
 " 238, ninth line from bottom, for "*material*," read *natural*.
 " 241, fourth line, second paragraph, for "*its*," read *it by*.
 " 254, eleventh line, for "*amazingly*," read *amazing*.
 " 256, fifth line, for "*immutable*," read *inscrutable*.







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