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HITCHCOCK (ED.)

THE PHYSICAL CULTURE

ADAPTED TO THE TIMES.

THE UNIVERSITY OF CHICAGO

PHYSICS DEPARTMENT

THE PHYSICAL CULTURE ADAPTED TO THE TIMES.

AN ADDRESS

DELIVERED BEFORE THE

MECHANICAL ASSOCIATION

IN ANDOVER THEOLOGICAL SEMINARY,

SEPT. 21, 1830.

BY EDWARD HITCHCOCK,

Professor of Chemistry and Nat. History in Amherst College.

PUBLISHED BY REQUEST OF THE ASSOCIATION.

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Οὐκ οὖν ὅτι μὲν σώματα καὶ ψυχὰς τὴν γε ὀρθὴν παντὸς δεῖ τροφὴν φαίνεσθαι δυναμένην ὡς καλλίστα καὶ ἀρίστα ἐξεργάζεσθαι, τοῦτο μὲν οὐθῶς εἴρηται πού;

Ought it not to be every where maintained, that a good education, gives the mind and the body all the power, all the beauty, and all the perfection, of which they are capable?—*Plato.*

AMHERST:

J. S. and C. Adams,.....Printers.

1831.

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AN ADDRESS

DELIVERED AT THE

ANNIVERSARY OF THE

UNIVERSITY OF CHICAGO

BY

BY THOMAS H. HENRY

IN THE

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ADDRESS.

No feature is more uniformly present in the works and operations of nature than, proportion. Men generally may not be able to give a logical definition of this characteristic; nor do they, in ordinary cases, observe its presence. But let it be wanting, as it sometimes is:—let a sickly or distorted plant, or animal, be exhibited before us; showing the effects of a disproportionate developement or action of its parts, and we instinctively perceive the absence of congruity; and hence learn, that its general, though unnoticed presence, is essential to the health and beauty of the natural world.

Perhaps no part of the creation suffers so much from a violation of the laws of proportion, as man. Less under the influence of instinct than the inferior animals, his physical and intellectual character, receives a deeper impression than theirs, from factitious circumstances and appetites. Hence will result an unequal cultivation and development of his powers. In savage life, his situation demands little besides physical efforts; and therefore, he will cultivate almost exclusively, his bodily powers; his mind being suffered to lie coiled up and feeble in its material prison. Muscular energy and mental imbecility, therefore, will be the prominent characteristics of the savage.

The progress of society from its incipient, to its most refined and luxurious state, exhibits a gradual, and finally a complete change, in this picture. As the intellect begins to receive attention, the bodily powers are less and less cultivated; until at length the happy medium is reached, when each is disciplined in due proportion. This is the golden age of society; when *sana mens in corpore sano*, is

no longer a poetic dream. It is that period in the history of nations, when their character is most complete in its grand outlines : when great vigor of intellect is connected with great vigor of body : when there is competence and independence, with little excessive poverty on the one hand, or enormous wealth on the other : when industry and enterprise are yet uncrippled by sloth and effeminacy : when there is refinement of manners without fastidious nicety ; and when the moral pulse of the community beats full and strong ; not urged on to feverish violence by ignorance and credulity, nor feeble and intermittent, through the influence of luxury and scepticism.

But this happy condition of society rarely lasts long ; and then begins to be exhibited the feebleness, and distortion, resulting from excessive cultivation of the mental powers, while the physical are neglected. Ingenuity and wealth enable many to dispense in a great measure with active bodily efforts, and multiply the means for inordinate gratifications of every kind. Thus are engendered a multitude of factitious wants, that give at length an almost entirely artificial character to society. As a consequence, the firm and elastic muscle and the vigorous frame, are succeeded by debility, and the pale and lean aspect of dyspepsy. The eye of the mind, no longer bright and sparkling, looks out with a feeble glance, from its pale tenement ; and although the intellectual faculties are plied with a thousand stimuli, they send forth only imperfect and distorted productions ; like the flowers of a garden exceedingly fertile, which, though of great size and gaudiness, have lost their delicate natural form and simple elegance, and their power of producing sound and valuable fruit. In short, amid an excess of refinement, and every facility for the cultivation of knowledge and virtue ; frivolity, imbecility, and corruption, characterise the times : And all because the laws of proportion have been violated, by neglecting a cultivation of the bodily powers, correspondent to that of the intellectual.

The present age is characterised by most assiduous efforts, thoroughly, and in the best manner, to discipline all the powers of the mind. From the time when our children enter the infant school, till they have finished their professional studies, they are met by the ablest masters and the wisest rules, to aid in the acquisition of knowledge, and in the expansion and discipline of the intellect. Indeed, the intelligent part of the community, have become decidedly enthusiastic on the subject of intellectual education. So that we see veterans in literature and science, abandoning the folios of classic lore, and the abstruse demonstrations of philosophy, to compose the infant's manual. I complain not of this wide spread excitement; but acknowledge with gratitude, that it is accomplishing wonders for the improvement of the intellect. But I do complain of the vastly disproportionate attention that is given to physical education. Indeed, except in a few recent instances, who, among the numerous founders, patrons, guardians, and instructors of our public literary institutions, ever thought of making any regular provision for keeping in play the delicate machinery on which the immaterial principle so essentially depends for successful operation? The whole business of physical education has been left, and in nearly all our oldest and most respectable institutions is still left, almost without time, encouragement, or direction; except, perhaps the erection of a few articles of gymnastic apparatus. If the student happens to have learnt that attention to diet and exercise is desirable, and should possess the resolution to cultivate his muscular energies, though the laws of the institution, to which he belongs, have monopolized nearly all his time for mental discipline; and though a thousand temptations to excess in diet meet him at every table:—if his resolution be strong enough to conquer these almost unconquerable difficulties, he may sustain the intellectual labors of his course, without destroying his bodily constitution. But if untaught in the fundamental principles of physical education, he suffers the ambition of scholarship, or a

natural inclination to gluttony and inaction, to control him ; it will be wonderful if bodily health and vigor are not crushed by the load that is laid upon them ; and the mind, ever after, do not partake in all its movements, of the feebleness and inefficiency of its material tenement. Instances of this character have been so alarmingly multiplied in latter years ; bright hopes have been so often prostrated ; vigorous and pious youth of sprightliness, genius, and promise, have so often been irrevocably changed, into complaining, imbecile, gloomy dyspeptics ; that a solicitous enquiry has gone forth among the guardians of literature and religion, as to the cause and the remedy. And from almost every quarter, a response is sounded louder and louder in their ears ; *it is the neglect of early physical education.* From no quarter has this reply come more distinctly and forcibly, than from the Association which I have the happiness of addressing. Its existence proves a deep conviction among those best qualified to judge, and most deeply interested, that the cultivation of the bodily powers has been sadly overlooked and neglected in our literary institutions ; and that it is high time to commence a reformation on this subject. And the decisive success that has thus early attended this effort :—its rescue of some already from impending ruin, and the general improvement of health which it has obviously produced in the Seminary,—must carry home to every impartial mind, a conviction of the necessity of waking up to the subject of physical education. The same appeal is sustained by the operation of several institutions in our land, that recognise, as a leading principle of their establishment, “ the union of academic studies with systematic bodily labour.” One of the most efficient of these, the “Manual Labor Academy of Pennsylvania,” in its first annual report, thus testifies to the influence of this system upon the pupils. “The health of this interesting family has been uninterrupted, except in a few cases diseased when admitted. Every invalid remaining there has been restored to health.—Their blood (that of the students who have

adopted this system,) flows warm and rich and equable; and the east winds cannot penetrate them. Their thirst demands water, their hunger plain food, their limbs rejoice in muscular efforts, and their minds in truth. Sleep rests them, and their waking eyes behold the light of another cheerful and useful day."*

The man, indeed, who demands infallible success in these incipient efforts, undirected as they are by experience in our own country, and, therefore, liable to imperfection, will be disappointed: But he, who is content with results as propitious as can be expected under such circumstances, will be gratified and animated; and especially when he recollects, that in Europe, Pestalozzi and Fellenberg have demonstrated the utility of this system by a longer course of experiment; he will feel that the root of an alarming evil has been found out, and might and must be eradicated.

If I mistake not, no age of the world has demanded such an assiduous cultivation of the physical powers as the present. I maintain that *there are peculiar characteristics of the times in which we live, that demand peculiar attention to physical education.* This is the subject which I wish to bring distinctly before this audience on the present occasion.

In the first place, THE PECUNIARY DEMANDS OF BENEVOLENCE AT THE PRESENT DAY, CALL FOR THOROUGH AND SYSTEMATIC BODILY CULTURE.

In many parts of the world, but more particularly in this country, the services of educated men are needed, where only small and uncertain salaries can be expected, and where extra literary labors will meet with no pecuniary recompense. Knowledge must be extended to the lowest classes in society, and a scattered population supplied with physicians, lawyers, and ministers. Hence the men who engage in this service, must depend, in a greater or

* First Annual Report of the Manual Labor Academy, of Pennsylvania.—1829.

less degree, upon bodily efforts for securing a competent support. But if these efforts be not commenced in early life, they will never afterwards be successfully made. Now as no student knows where his lot will ultimately be cast, it is the part of wisdom early to habituate himself to these mechanical and agricultural pursuits, on which he may be compelled partially to depend for subsistence.

I know that the spirit of many a youthful and ambitious scholar, who has been brought up in affluence, revolts from the idea of thus eating his bread in the sweat of his brow, and of withdrawing a part of his attention from the cultivation of knowledge, for grosser pursuits. But he ought to know, that the revolution of a few annual suns will greatly change his views and feelings on this point; and a little mortifying experience may teach him at length, that even such a sphere of labor, as we are speaking of, may be large enough for his abilities, transcendent as they now seem to him. Many, indeed, placed by the hand of Providence against their wills, in such circumstances, have at length acknowledged the wisdom that appointed their lot; and found that no condition is more propitious to human happiness, than the union of literary with agricultural or mechanical pursuits.

It is most important, in a country like ours—indeed, in what country is it not important—that our educated men should be those of the richest native talent. And these, to say the least, are as likely to be found in the poorer, as in the richer classes of society. Means, therefore, should be provided for the education of youth of this description, who are without property. And especially does the Christian Church need, for ministers and missionaries, all the indigent and pious young men of talent in the land. The call for their services has long been loud, and is now become imperative. Nor ought Christians to rest satisfied, until every such youth among us is searched out and put upon a course of liberal education. But shall all these be sustained, through their ten years of preparation, by the hand

of charity? Yes: rather than that they should not be brought forward at all. But it has become an interesting inquiry, whether some system cannot be adopted, by which young men of energy and talent can procure, in whole or in part, the means of defraying the expense of their education; and that without essentially delaying their progress. I maintain that such a system is not only practicable, but may be adopted without difficulty; just so soon as a majority of the community are convinced of its feasibility. And when we consider how difficult, if not impracticable, is the work of procuring, in the ordinary way, the large amount of funds requisite for the object, and how greatly these funds are needed in the other branches of benevolent enterprise, every philanthropist will surely listen candidly to any suggestions bearing upon so important a point.

The first part of this system of self support, which I shall mention, *requires that the student devote from three to six hours each day, to mechanical or agricultural pursuits.*

Even if he give six hours to exercise, this will leave him nine for sleep and meals, and nine for study; and probably he could make as great literary progress in this time, invigorated as he would be by bodily exercise for the work, as if he were to devote twelve or fifteen hours to study. Now the common laborer receives generally about eight cents an hour for his services; and at the same rate, the student would earn nearly three dollars each week; or if he labor only three hours each day, (and every scholar needs at least that amount of exercise to preserve his health,) the weekly amount would be about one dollar and a half; or if we take four hours and a half per day, as his period of physical effort, the weekly income would be more than two dollars. I know, indeed, that unprovided as most of our literary seminaries are, at present, with any facilities for profitable labor, the student could not earn even eight cents per hour, were he ever so diligent. But let there be connected with our academies, colleges, and professional seminaries, a farm of proper extent, and shops

for mechanical labor sufficiently numerous, and it must be the student's own fault, if he cannot earn the moderate sums which I have mentioned. Nay, I doubt not, but under proper regulations, and with proper management on the part of the student, these sums might be nearly doubled; while at the same time his literary progress would be accelerated, rather than retarded, by such vigorous and systematic cultivation of his bodily powers. Add to all this, that if necessary, a half, or whole day, weekly, might be employed in active labor; and in the same manner, might be spent a large portion of vacations.

Now with such a system of exercise, and so much time to spare for it, and such facilities for turning every muscular effort to the best account, who will consider that a Utopian calculation, which decides, that most indigent students might thus defray a large proportion of the necessary expenses of an education? Indeed, might I not find evidence on this very eminence, that such a system is practicable; and are not many, in other parts of the land, ready to testify from experience, that these results are neither visionary nor exaggerated? And if so, will it be thought strange, if I urge upon an enlightened, benevolent, and Christian community, the pressing duty of an immediate and extensive introduction of the elements of such a system into our seminaries of learning? I plead for it in the name of our Education Societies—in the name of the unenlightened and unconverted millions of other lands—and in the name of our new and destitute settlements.

But the whole plan is not yet developed. For in the second place, the student can greatly reduce his expenses, *by adopting a very simple, yet healthy system of diet.*

The fundamental principles of this system are very plain and definite. One part of it consists in the student's discarding entirely, except by the physician's prescription, the use of all distilled and fermented liquors, such as spirit, wine, and cider; as also those bewitching narcotics, tea coffee, and tobacco. It is now too late—the blended rays

of philosophy and experience fall with too strong a light upon this subject—for an intelligent man to maintain, that any of these substances are necessary for health, strength, or happiness. Nay, both chemical and medical philosophy testify, that their sole effect upon the healthy, is insidiously and prematurely to exhaust the animal system, and expose it to the fiercer onsets of disease. And those who have fairly made the trial, and adhered most rigidly to nature's beverage alone, have found that this is not a vain philosophy. If any class in society are preeminently without an apology for the use of these substances, it is the young and healthy, who are devoted to literary pursuits. For any one of this character, to be so wedded, I will not say to spirit or wine, but even to his snuff box, or cigar, or cup of tea, or coffee, that he cannot cheerfully abandon them all, to secure the important object under consideration, shows that he has not the self-denying spirit demanded in a minister of Christ, or even in a Christian. Self denial! It can scarcely be called such, for a young and vigorous man to abandon these decidedly injurious habits, and to form others which are eminently conducive to health, longevity, progress in knowledge, and usefulness: I mean the practical adoption of the principle, that water alone is the best and only proper drink for man. Nor need any such individual fear coming at once and fully into the practice of using this beverage alone—giving up resolutely, entirely, and forever, (except as medicines,) his wine, tobacco, tea, and coffee. Indeed, if they be abandoned only by piecemeal—if the attempt be made to break away from these enchanters by slow degrees—the result will be, in four cases out of five, that the cords of attachment will be strengthened and coiled more closely around the captive. If the habits are salutary to health, they ought not to be abandoned at all; but if injurious, no young and healthy man, (and very rarely any other,) need fear their discontinuance at once; any more than he need fear to loosen a cord, which is drawn so closely around his throat as to obstruct his breathing. When

you hear a man professing himself able at any time to abandon a bad habit in eating or drinking, and yet doing it only by slow degrees, through fear of injuring himself, you may rest assured, in the first place, that this is a device of appetite to quell the voice of conscience and put down resolution ; and, in the second place, that that bad habit is fixed upon the man with so tenacious a grasp, that he will probably never get rid of it.

I know, indeed, that great and sudden changes in dietetic habits, even if ultimately salutary, are sometimes attended with bad consequences ; and in persons of feeble constitutions, it may be, with dangerous effects. But even in the case of the invalid, is it not better at once to make the change, lest he should not make it at all ; and if he find it very prejudicial, let him relax a little in the rigor of his discipline, until he has reached the healthy standard ; since it is much easier to let out the reins of appetite, than to draw them tighter. And as to the young and healthy man, there is stamina enough in his constitution easily to resist all changes of this kind, that are recommended by philosophy and experience. Let him not hesitate, therefore, to free himself from every injurious habit by a single blow, and not attempt a mangled and protracted amputation at intervals.

Another part of this system of dietetics, consists *in eating of a single dish only at a meal, and of that dish in moderation.*

By a single dish, I understand some one principal and substantial article, as meat or bread, with such other articles as any one chooses to add for dilution or seasoning. Indeed, any mixture of different articles, that is made before eating, may be considered as a single dish ; though it ought always to be understood, that the fewer the articles thus brought together, if they are of a proper kind, the more favorable for health ; since it is a principle in medical philosophy, well established, that “ the more simply life is supported, the better.” But considering every mixture

made before eating as a single dish, I maintain that when a man has partaken slowly and moderately of this, he has eaten enough for promoting health and giving the greatest strength to the body and the mind. This position is established as a first principle in dietetics. Hence then, whatever is eaten after this first dish, under the name of pastry, cakes, puddings, or sweetmeats; or as a second or third course, of different sorts of meat or fish; or the same sort, differently cooked, must be injurious. All such articles thus brought forward after the removal of the first or principal dish, are to be regarded as additional dishes; and I maintain that the student, and indeed, every temperate man, ought to abstain from them. For if the first dish be sufficient for health, strength, and happiness; and the general effect of the additional dishes be injurious:—and I appeal to the records of philosophy, and temperance, to prove that such is the case;—why, except to gratify a diseased and pampered appetite, should the literary man, or any other man, indulge himself in more than one? Nay, farther; if he would reap all the benefits of temperance, he must partake of that one dish only in moderate quantity. In but few cases will it answer to take the appetite, even for that single dish, as a guide; for appetite in almost every man, has become so perverted—is, indeed, so factitious,—that it cannot be trusted. But a man may judge of the quantity of food which his constitution requires, by a careful observation of the effects of different quantities upon his feelings and health. I do not maintain, that every man demands precisely the same amount of food, so that the balances can at once determine the point. But I do maintain, in the language of a distinguished living physician, that “any discomfot of body, any irritability or despondency of mind, succeeding food and drink, at the distance of an hour, a day, or even two or three days, may be regarded, (other evident causes being absent,) as a presumptive proof, that the quantity has been too much, or the quality injurious.”—(*Johnson.*)—A careful attention to this rule will enable any

man, to ascertain the amount of food which his constitution demands; and when this is determined, to that quantity he should most religiously adhere.

Such is the dietetic standard to which every resolute and really pious student might easily bring himself. "Water—water alone, unmixed, unspoiled," should be his drink; and a single dish, and that in moderation, should limit his appetite at each meal. And can there be a doubt that such a system, extensively adopted at our literary institutions, would greatly reduce the expenses of living? So obvious is this conclusion, that I need spend no time in proving it.

But I am aware that many will exclaim against this system as unmercifully and injuriously strict—as in fact, slow, aggravated starvation. And so contrary is it to the almost universal practice of these luxurious times, that I doubt not many will look upon it as novel; never yet tested fairly by experience; and therefore, merely hypothetical. But I beg every literary man, before he adopts such an opinion, to review the history of the ancient philosophers, particularly of the Pythagoreans, and to read again the biographies of the men of every age, who have been most distinguished for literature, science, and usefulness. And he will be astonished to find, that nearly all these incorporated the elements of this system into their practice. Nay, he will find, that many a philosopher, many a physician, many a civilian, has left on record, a most decided testimony in favor of its efficacy and value.* But their enthusiastic approbation of such principles, has been, as it were, a voice crying in the wilderness; unheard amid the clamors of appetite, and falling on the ear of the invalid alone, who listens to it, only as the last alternative that can rescue him from the grave.

* Sinclair, in his "Code of Health," Vol. II. p. 301, has given a Catalogue of all the works that have appeared on Hygiene, Longevity, and Old Age; and they amount to no less than 1878 !! viz.

In the English language, 312.

In the other languages, 1566.

As to the degree of pleasure resulting from the adoption of the system now recommended, compared with that to be derived from the common practice of eating of a variety of dishes, and as much as appetite demands, no man, who has tried both systems, can hesitate to ascribe to the first the most decided preeminence. This assertion will sound highly paradoxical to those, who have become sincerely attached to high seasoned food, in great variety, and stimulating drinks. But the pleasure derived from eating and drinking, depends upon the relish one has for the repast, upon the time devoted to it, and upon the effects on the feelings and the intellectual operations. Now the moderate eater partakes of his repast with a natural appetite, which receives the simplest food and drink with a keener relish than a factitious appetite can give, for viands the most deliciously prepared: nor does the temperate man crowd down his food with the rapidity that is so common with the gourmand; and therefore, though he eats less, he enjoys it longer. And as to the effects upon the mind and the heart, those of rigid temperance cannot be described but with enthusiasm, by any one who has ever experienced them. To represent a spare diet—even as rigid as I have recommended—as inimical to happiness, is, therefore, in the face of all experience and philosophy. It is on the other hand, the only way to secure freedom from violent bodily disorders, as well as to obtain equanimity of mind, clearness and vigor of thought, and a control over the passions.

Novel and impracticable as this dietetic system may seem to any at present, I cannot but predict that the day is at hand, when the great mass of the Christian world will adopt it in its fullest extent. And the rapid progress which one branch of temperance has made within a few years, is the principal ground of this prediction. It will ere-long be seen and felt, that the same principles which proscribe alcohol, do almost equally condemn other stimulants and narcotics, as articles of common use; and that a rigid adherence to the use of one dish only at a meal, is almost as

effectual a security against intemperance in eating, as total abstinence from distilled spirit is against drunkenness: Christians will soon see, if they can be made fairly to look at the subject, that until they adopt this safe and definite rule, they live intemperately; and that without this rule, they are, as to principle, just in the condition of those, who make what they call a moderate use of ardent spirit. They will see too, that the money which they now devote to unnecessary articles of food and drink, is wanted, and by their Redeemer is required, to bring on the Millenium; and when they see and feel all this, they will not hesitate to adopt the system under consideration.

I am led by the course of remarks to mention, as a third item in the system of self support, which I am advocating, *that provision should be made at our literary institutions, for boarding houses, established on the principles of temperance.*

Who can expect that the student will be able to resist the temptations to excess, that meet him, in giant strength, at such boarding houses as are commonly provided; where he will have before him tea, coffee, and a variety of dishes, richly and deliciously cooked and seasoned, and where, to refuse a liberal allowance of all sorts, would subject him to the charge of squeamish nicety? Surely, it is too much to calculate upon, from poor human nature. But were a temperance table to be spread before him, from which the injurious articles were excluded, the victory would be easy. And where would be the difficulty of establishing and sustaining such boarding houses, provided students should unitedly prefer and patronize them? Or how easy would it be for those determined to adopt a particular system of diet, to associate; and having marked out their plan of living, to provide the means of carrying it into execution? Nor can there be any doubt—indeed, I might refer to trials of this sort that have been already made in some institutions, to prove, that such a system would very materially lessen the expenses of living. For take away tea, coffee, and a multiplicity of dishes, and you would diminish the

pecuniary expenses, I had almost said, in direct proportion to the number of sorts which you remove. We may safely calculate, that such a plan would reduce the price of board one third. And when it was once seen by a conscientious community, that students could not only sustain life by such a system of diet, but like Daniel and his companions, when living on pulse, in the Babylonish court, were actually more vigorous in body and mind than others; they too would demand temperance boarding houses, and spread temperance tables, and thus be able greatly to swell the amount of their contributions to the cause of benevolence. Oh, who can calculate the mighty impulse that might thus be given to the progress of knowledge and piety! But I forbear to indulge in such pleasing anticipations.

Finally; if in the three methods that have been pointed out, the student should not find sufficient pecuniary resources for self support, *let him occasionally interrupt his literary course by the instruction of youth.* An interruption of this kind is apt to be unfriendly to the literary progress, though the business of instruction is not without its advantages in other respects. But in general, it would be better, so far as pecuniary remuneration is regarded, as well as the mental and moral discipline, either to delay the work of instruction till the collegiate course at least be completed, or to devote a longer portion of time to it in the early stages of education. Still, if a deficiency of resources demands it, no one ought to hesitate to resort to the employment at any time, to secure the important object under consideration.

The plan which I have thus hastily developed, has been tested by experience I believe, in nearly all its parts, though not in its entireness, in any literary institution; unless it be recently in this place. Yet can it be doubted, that its judicious and complete adoption, would enable every healthy and energetic student to earn, and to save, nearly enough to sustain him in his course of education? If so, how immensely important to the cause of learning and religion in our land, would be a practical, experimental demonstration, of its

feasibility? Indeed, that instructor, or that institution, which shall do this, will have given to our Education Societies, and, in fact, to every other benevolent enterprise of the day, an impulse that would be felt to the extremities of the globe. It is gratifying to learn that this experiment is in progress upon this interesting eminence.*

I hasten to say, IN THE SECOND PLACE, THAT THE LITERARY CHARACTER OF THE TIMES, DEMANDS A VIGOROUS AND PECULIAR CULTIVATION OF THE PHYSICAL POWERS.

I use the term *literary* in its broadest signification, as applying to knowledge in general. And it will be admitted at once, that the present age is distinguished—particularly in every free country—for efforts to simplify knowledge, and diffuse it through the community. These efforts have been most happily successful; and the great mass of society are rapidly rising on the scale of intelligence. The necessary consequence of thus elevating the general character, is, to raise proportionably, the literary standard of educated men. No one can now wrap up a scanty stock of knowledge in algebraic formulæ and pedantic terms, and thus hope to pass for a learned man. If he would acquire the name of an able scholar, he must be really such. Nor will the public be satisfied with limited and partial attainments.

*I was agreeably surprised to find, on visiting Andover, that the system of self support, which I was about to advocate before the Mechanical Association, was already in successful operation in the Academy in that place. "The diet in the commons," says one of the Trustees, who has had the goodness recently to answer my enquiries, "is bread and milk for supper and breakfast, and a plain common dinner of meat. During the season of year for work on the farm, the students are required to labor eleven hours a week. We have now one vacation in the Spring, of one week, and another in the Summer, of the same length, and a third of six weeks in the Winter; that our young men may keep school. The second term has just closed, and the experiment thus far, appears altogether favorable. The price of board, for the two terms, has been 77 cents a week. There were in the commons last term about 40. As far as I know, they were universally satisfied with their living—their health was good, and one of the instructors told me, at the close of the term, that they had accomplished more in their studies than usual."

The public will look with great interest upon the progress and final results of this interesting experiment: and I rejoice that it is under the guidance of men, who will conduct it judiciously.

Each individual, among the various occupations of civilized life, expects that every scholar will be acquainted with all that is scientific, or literary, in the particular pursuit to which he has devoted himself. And the easiest mode of meeting this expectation, is to acquire so much knowledge of the principles of each art and profession, as to be able to converse respecting it, intelligibly and profitably. Especially is this necessary for the clergyman; whose knowledge of his own profession will be estimated, in a great measure, by the mass of mankind, from his acquaintance with, or ignorance of their own.

Now this high standard of literary attainments cannot be reached by the scholar, without a vigorous cultivation of his physical powers. If these be neglected, or disciplined in a disproportionate manner, his constitution will almost infallibly sink under the effort. Especially is this true of the individual, who, in early life, was accustomed to active and laborious pursuits. Alas, memory presents us with many painful illustrations of the truth of this remark. We have seen the youth of talents and piety, forsaking the farm or the shop rather late, and conscientiously entering upon a literary career, in the hope of being useful. Possessing, as he supposed, an iron constitution, and feeling the necessity of pressing forward with all his might in his literary course, he sat down to his books with unremitting application; exercising his brain incessantly, but neglecting in a great measure, those 400 muscles, which, till that period, had been kept almost constantly in motion; and still continuing to load his digestive organs with the same amount and variety of food, as when engaged in daily labor. Nature bore this outrageous violation of her laws for a long time, almost without a murmur: but at length she began to send forth her cries, and to lift up her signals of distress:—He, however, ignorant of their meaning, heeded them not, until driven from his books by the strong arm of dyspepsy, or incipient disorder in the lungs. Afterwards, nothing remained to him, but to nurse for a few years, a broken con-

stitution, and to lament over the mysterious providence which thus early blasted his hopes. But had he been acquainted with the laws of the human constitution, he would have seen that the providence had in it nothing of mystery ; but was the natural and inevitable result of his cultivating his mind and heart, to the neglect of his body.

The principle that firm bodily powers are essential to the highest degree of success in learning, is too little known and appreciated. Nay, we sometimes meet with the opinion, that a feeble constitution, which can not bear mechanical or agricultural labours, may yet endure hard study. But it ought to be known, that literary efforts are, of all others, most trying to the invalid ; and that the most vigorous minds—with perhaps here and there an exception—have been united to vigorous bodies. In other words, those who have risen the highest in intellectual efforts, have been the men, who have inherited from nature, vigorous constitutions, or have given the strictest attention to impart strength to one naturally feeble, or debilitated by early neglect.

If we look into the history of literature, we shall find support for this position in the biographies of individuals most distinguished for their attainments. What can be a better proof of a firm constitution, or at least, of one free from the seeds of disease, than longevity ? Indeed, though men of slender habits and rather feeble muscular power, have attained to a good old age by rigid temperance, yet it is essential to long life, that all the vital powers should be free from disease and vigorous. Now the most eminent scholars of all times, have generally been long lived. The ancient philosophers and christian writers were remarkable for their strict attention to diet and exercise, and for their longevity too, when not removed by the hand of violence. The average length of the lives of 38 of these, embracing philosophers, orators, physicians, historians, poets, and divines, was no less than 81 years. Among these, were Plato, Socrates, Pythagoras, the two Plinys, Varro, Aris-

totle, Hippocrates, Galen, Demosthenes, Cicero, Isocrates, Euripides, Sophocles, Virgil, Horace, Xenophon, Thucydides, Josephus, Chrysostom, Justin Martyr, Origen, Hilary and Augustin; several of whose days were shortened by violent deaths.

The longevity of learned moderns has been scarcely less remarkable. Twenty Italian mathematicians of different epochs, attained to the age of 81: and 23 of the most able scholars of that country lived 76 years. In France, the average term of life in 152 men of letters, taken at random, was 69 years; and 56 of the most eminent French scholars lived 77 years. Fifteen German scholars, proverbial for close study, lived upon an average 75 years. Among them were Leibnitz, Kant, Wolf, Michaelis, (David,) Adelung, Werner, Heyne, Wieland, Haller, Jacobi, and Klopstock. Twenty five of the most eminent English and Scotch writers, held out upon an average, 73 years. Among these, we find the names of Newton, Locke, Roger Bacon, Lord Bacon, Halley, Samuel Johnson, Young, Warburton, Adam Smith, Blair, Reid, Black, Robertson, Campbell, Playfair, and Stewart. In our own country, 23 most distinguished scholars, have reached the medium age of 76 years: Among whom, were the Mathers, the Chaunceys, Dr. Stiles, Johnson, Hopkins, Bellamy, Witherspoon, West, Dwight, Ewing, Franklin, President Edwards, Jefferson, and Samuel and John Adams.

According to these statements, the medium length of the lives of 186, of the men most distinguished in ancient and modern times for intellectual achievements, is 78 years. A longevity so remarkable, can be imputed only to great natural vigor of constitution, or to scrupulous attention to physical culture. For although intellectual pursuits, moderately and prudently followed, are undoubtedly favourable to health, yet the intense and protracted efforts, which most of these men must have made, to accomplish their Herculean labors; and that too, in most cases, under the pressure of poverty, or in peril of life, or in the midst of vexatious

public cares, must have worn upon the animal system, and if not originally vigorous, or sustained by severe discipline, must have broken it down.*

I know that some examples may be quoted, in which men of apparently the feeblest constitutions, and struggling with disease through their short lives, have left imperishable monuments of their learning. But if I mistake not, it will be found, that in nearly every case of this kind, a naturally vigorous constitution was ruined by early collision with difficulties and exposures too great for flesh and blood to sustain ; or by a most wanton disregard of physical education. If, for example, Dr. Alexander Murray died at the early age of 38, it was not because nature denied him a strong constitution ; for when we learn how severe were

*It would be very easy greatly to enlarge the list that is given in the Address, of distinguished octogenarian students. In Sinclair's Code of Health, for example, we find the names of 158 scholars in Modern Europe, (few of which, I believe, are included in the list that I have given,) the average length of whose lives is as follows :

42 English Literati,	- - - - -	83 years.
84 French,	" - - - - -	85
22 Italian,	" - - - - -	85
6 German,	" - - - - -	83
4 Dutch,	" - - - - -	84

It is believed that a list of the most distinguished living scholars and philosophers, would conduct us to the same conclusions : viz. that they must either have inherited vigorous bodily constitutions, or have rendered healthy and hardy by regimen, those naturally feeble : and that intellectual pursuits are favorable to health. The following list of distinguished living German *Savans*, obligingly furnished me by Dr. Francis Lieber, will render this position probable.

Blumenbach, born,	- 1752	and is now	79 years old.
Göthe,	- - - 1749	- - -	82
Paulus, the theologian,	- - - 1761	- - -	70
Eichhorn,	- - - 1752	- - -	79
Gauss,	- - - 1777	- - -	52
Bode,	- - - 1747	- - -	84
Rosenmüller,	- - - 1768	- - -	63
Heeren	- - - 1760	- - -	71
Schleirmacher,	- - - 1768	- - -	63
Shlegel, Aug. Wilh.	- - - 1767	- - -	64
Savigny,	- - - 1779	- - -	52
Buttman,	- - - 1764	- - -	67
Hegel,	- - - 1770	- - -	61
Schelling	- - - 1775	- - -	56
Wegscheider,	- - - 1771	- - -	60
De Wette,	- - - 1780	- - -	51

Average, 66 years old.

his struggles with almost every kind of obstruction, and how perfectly regardless he was of every thing relative to his body, we shall even wonder that he did not sink sooner. A similar remark will apply to Pascal, who died at the age of 39. If Sir William Jones did not see half a century, yet the disorder that terminated his days had its origin in an unhealthy climate, rather than in any natural defect or feebleness of constitution. Certainly, in a vast majority of instances, the men whom posterity will honor most for intellectual efforts, outlived the allotted period of threescore years and ten: and hence, as a general conclusion, which a few excepted cases cannot nullify, their bodily constitutions must have been naturally vigorous, or have been cultivated until they became so.

It will be admitted, however, that the excited and morbid sensibility which often accompanies chronic disorders, is peculiarly favourable to some, though the least valuable species, of intellectual labor. I refer to the composition of novels and poems; particularly the latter. Men are fond of strong excitement; and in order to produce it in the reader, the writer must be under the influence of deep feeling: *Ardeat, qui vult incendere*. But it is the effect of health and temperance, to produce a state of mind too equable and unimpassioned for poetry and romance. Disease, or excess, destroys this happy equilibrium, and awakens that deep and irrepressible emotion, which is vented forth on the pages of the novel or the poem. This is the chief ingredient in the poet's inspiration; and never is he more wretched, than when he is rearing the monument of his own immortal renown. Poetry of a didactic, or philosophical character, may indeed, be written in the midst of health, prosperity, and happiness: But that which breathes a deep toned feeling, most commonly arises from the funeral pile of the body; where he art and flesh are consuming, either in the fire of ungovernable passions, or of internal disease. So that in fact, when fancy and feeling feast upon the poet's labors, it is his very life, served up in the repast, that gives it its richness and relish.

In illustration of these sentiments, the thoughts cannot but recur with melancholy interest, to Goldsmith, pining away in his garret; to Cowper, haunted and consumed by what he calls "spiritual hounds"; to Young, made the prey of disappointed ambition; to Chatterton, galled and fretted, and finally rendered desperate, by the triple chain of poverty, pride, and infidelity; to Petrarch, bleeding and fainting under the secret wounds inflicted by the eye of beauty; to Henry Kirk White, immolating himself upon the altar of literary ambition; and to Burns, crying out, as he withers away in the furious flames of intemperance:

"Oppressed with grief, oppressed with care,
A burden more than I can bear;
I sit me down and sigh!
O life! thou art a weary load,
A long, a rough, a dreary road,
To wretches such as I!"

Nor can we in this connection forget Byron; whose brain was maddened, rather than inspired, by the concentrated poison of every unholy passion; and who, in writing *Don Juan*, his master piece of poetic blasphemy and impurity, roused that poison into ebullition, as a late writer declares, by the influence of gin and tobacco!

"O, his were not the tears of feeling fine,
Of grief or love; at fancy's flash they flowed,
Like burning drops from some proud lonely pine
By lightning fired; his heart with passion glowed,
Till it consumed his life; and yet he showed
A chilling coldness both to friend and foe,
As Etna, with its centre an abode
Of wasting fire, chills with the icy snow
Of all its desert brow, the living world below."

We think also of Montgomery, a spirit of a different stamp; and we hear him exclaiming, as he looks up with the eye of faith from the depths of despondency:

"Though long of winds and waves the sport,
Condemn'd in wretchedness to roam,
Live! thou shalt find a sheltering port,
A quiet home."

Pollok too recurs to the memory, pouring his vital energies with careless profusion into the "Course of Time," and dying

"As sets the morning star,
Which goes not down behind the darken'd west,
Nor hides obscured among the tempests of the sky,
But melts away into the light of heaven."

Here also we cannot but remember our own author of the "Age of Benevolence," destined to have been the Cowper of New England, had not disease early marked him for its prey; yet probably that sensibility, which imparts the richest charm to his productions, was the result of the slow fire that was feeding upon his life. Indeed, in this excess of sensibility, the result of frail animal organization, or of deep seated, wounded passion, we have the foundation of the adage, *Poeta nascitur, non fit*; and here too we learn the reason why poets have not generally lived so long as other classes of literary men. Poetical distinction, therefore, will never be coveted by any scholar, who knows at what expense of happiness and life it must be purchased.

Let not the important connection between bodily vigor and mental acumen, induce the invalid scholar to conclude that the road to eminence is entirely closed against him. For many of this description have performed wonders, and risen so high, in spite of every obstacle, that the world has only lamented that such mental powers were lodged in so frail a tenement—that the sword was too keen for its scabbard. But after all, it is idle for such minds to hope, that they can ever in this world, climb to the pinnacle of intellectual greatness. Let them be thankful, if God permits them to labor in a subordinate sphere, and look to another state of being for the full development of their powers.

If we compare the physical and intellectual character of nations, we shall arrive at the same conclusion, in respect to the dependence of the latter upon the former, as has been deduced from the biographies of individuals. It is in that golden age of a nation's history, already described,

when the bodily and mental powers are cultivated in due proportion, that genius has reared her noblest monuments. But when dietetic excesses, slothful habits, and excess of refinement, have given rise to a thousand factitious wants, a deterioration of the bodily powers succeeds among the mass of the community. This effeminacy and corporeal imbecility, react on the mind, weakening its powers and cramping its efforts. Hence it is, that in the luxurious and corrupt periods of a nation's history, we find so few instances of intellectual vigor; the excepted cases, showing merely, that the individuals have escaped the general morbid influence. If we wish for examples, illustrative of these positions, we have only to recollect what Greece was before the time of Alexander, and what she has been ever since: Or to compare modern Egypt, with Egypt when she was the cradle of the sciences: Or Italy, in our days, with Italy in the Augustan age. Other causes have, indeed, conspired to produce such changes; but it seems impossible to doubt that physical deterioration has been a fruitful source of moral, political, and intellectual degradation.

I proceed, in the third place, to remark, THAT TO BE EMINENTLY USEFUL IN PROFESSIONAL LIFE, AT THE PRESENT DAY, REQUIRES A PECULIARLY VIGOROUS CULTIVATION OF THE PHYSICAL POWERS.

The observations I have to make under this division of the subject, are so much more applicable to the ministerial than to any other profession, that I shall confine them to this alone.

Did the mass of society look upon the man who wears the clerical habit, as in a great degree they once did, and still do in some parts of the world—did they look upon him as a kind of ethereal being, having little to do with human wants and passions, and necessarily profound in his acquirements, it might not be important for him to be acquainted with the common business of life. But the diffusion of knowledge at the present day, has, in a great meas-

ure, divested the office of that mysterious sacredness which once surrounded it; and men have learned that real piety and learning, not the profession, give genuine dignity to the man; and that human wants and passions do not forsake the body, when the clerical character is assumed. They expect, therefore, that the clergyman will be somewhat acquainted with those pursuits that minister to the animal wants. And if they find him thoroughly ignorant of these pursuits, they impute it to a defect in his early education, rather than to a spiritualization of his nature, so entire, as to render him indifferent to all worldly concerns.

One important effect of modern changes in the literary character, of the community, and of improvements in the mode of instruction, is the bringing of every faithful minister of the gospel into closer contact, and more familiar intercourse, with his people. It will neither satisfy his conscience, nor the public, nor his heavenly Master, if he spends his time in cloistered retirement, appearing only on public occasions, and then under circumstances that produce a wide separation between him and his people. He must go among them, and mingle in familiar discourse with men of every grade and occupation. Nor will he best promote the cause of truth, by limiting his conversation at all times, to subjects strictly religious. But he will better conciliate the favor of his people, conquer their prejudices, and prepare them to receive kindly religious instruction, if he can occasionally and sensibly converse upon secular subjects; especially concerning the every-day employments of those he visits. If ignorant of these, some will conclude him as likely to be ignorant of the true gospel. And when he urges in his public ministrations, the danger of worldly attachments, the vanity of human pursuits, and the necessity of a supreme attention to spiritual concerns, many a hearer will say, "if our minister were himself acquainted with common worldly concerns, he would know that they demand a greater share of time and attention than he will now admit; nor would he look upon them as so utterly vain and sinful. He

would be convinced, that we cannot give so large a portion of our time, as he now claims, for public religious meetings, reading the scriptures, and private devotions." But if a people know their minister to be thoroughly conversant with these secular affairs, they cannot thus evade the force of his exhortations.

Nor is this all. Such knowledge produces more respect for his character among his people : and from his familiarity with subjects out of his particular sphere of action, they will infer his better acquaintance with those to which he dedicates his principal attention. Whereas, his ignorance of common worldly pursuits, exposes him to the shafts of ridicule from not a few in the community, who think it lawful to amuse themselves and others, by retailing the history of his odd management in secular affairs. And exaggerated as such stories usually are, it can hardly be denied, that the awkward manner in which some professional men manage their secular concerns, furnishes some foundation for their fabrication. In country parishes, every step the minister takes in these affairs, is scrutinized with even more vigilance than his religious performances. And when great ignorance in this respect is discovered, there are always enough to take advantage of it at the expense of the minister's purse. Hence he soon finds his salary insufficient for his support. But when he communicates the fact to his people, they are ready to impute his embarrassments to want of economy. And indeed, mismanagement of pecuniary and domestic concerns, is very apt to put on the appearance of needless and criminal extravagance ; although its foundation be simply ignorance. But whatever be its origin, it almosts infallibly weakens the confidence of a people in their minister, and by consequence, alienates his feelings from them ; so that a dangerous wall of separation grows up between them. Whereas, if a people find their minister managing his domestic and pecuniary affairs with economy, prudence, and sagacity, it tends to strengthen their attachment to him, and to open a

wider and more effectual door of usefulness. Now it is alone by an early attention to physical education, and that too, not merely in the gymnasium, but in the mechanic's shop, the garden, and on the farm, that the kind of knowledge and discipline can be gained, which are indispensable to prevent the difficulties I have described. A people may for a time be delighted with the brilliant talents and ardent piety of their youthful minister. But when he comes to be necessarily somewhat involved in secular affairs, if they find him incapable of judicious management; in other words, if they find that with all his fine sense, and exalted sense, he is wanting in common sense, one half of the charm with which they listened to him in public is broken, and his power over them proportionably diminished.

But in the next place, the more vigorous bodily health and increased ability for labour, which would result from physical education, is a still stronger argument for untiring attention to it.

The Christian church at the present day is losing a great amount of power, by the feeble health of her ministers. To meet a clergyman, indeed, especially of the younger class, is come to be almost synonymous with meeting an invalid. And the very distinct and particular statement of their complaints, which most are ready to make at the first introduction, is proof enough that dyspepsy is the difficulty. For it is strikingly characteristic of this complaint, that it disposes a man to spread his ailments and troubles before every one he meets; and he would feel as if great injustice were done him, were he to pass an hour in any one's society without such disclosure. Now the sentiment of Homer, that "the day which makes a man a slave, takes away half his worth,"* applies in all its force to the minister of Christ, who has become the slave of dyspepsy. If able still to retain his place, his duties are but imperfectly performed. The grasshopper becomes a burden; and in musing so much upon his

* Πμισυ γαρ τ' αρετης αποαινυται δουλιον ημαρ.

own troubles, he almost forgets those of his people. In his literary efforts, he is superficial; in resisting the progress of sin, he is timid; in special efforts, he is deficient; in parochial duties, extremely remiss; in his temper, he is apt to be unreasonably jealous, desponding, and capricious. In short, while sin and error are strong and flourishing around him, he is disheartened and inefficient; and all because he has as much as he can do to manage a broken constitution. Alas, multitudes by neglecting in early life to alternate labor with study, and to form habits of abstemiousness in living, prepare their systems for yielding to the slightest shock; and when once plunged into the mire, they are most commonly wading through it all their days.

Since neglected physical culture is the cause of this wide spread prostration of ministerial energy, the remedy must be sought in early, systematic, and persevering attention to such culture. He can accomplish nothing of importance, in literature or religion, who is in the habit of indulging, *ad libitum*, the unnatural, craving appetite of a dyspeptic; nor he, whose system is braced by stuffing and stimulating, rather than by exercise: who depends upon his glass of Champagne, or cup of young hyson, to prepare him for intellectual labor.* But let him be strict and simple in his diet, vigorous and thorough in his exercise, and seasonable in his hours of study, and he will find that he can accomplish wonders. We of this generation, dyspeptic and debilitated, read the biographies of some of our progenitors

* "Stimuli sometimes produce a kind of artificial genius, as well as vivacity.—Genius in this manner forcibly raised, may be compared to those fire works, which after having made a brilliant figure in the sky for a very short time, fall to the ground, and exhibit a miserable fragment as the only relic of their preceding splendor.—Gay, if I mistake not, in one of his letters observes; 'he must be a bold man who ventures to write without the help of wine.' But in general, it may be remarked, that the cordials which an author may on this account be induced to take, are more likely to make himself, than his readers, satisfied with his productions."—*Reid's Essays on Hypochondriacal and other Nervous Affections*, pp. 69 & 70.

with astonishment, as we compare our labors with theirs. Yet the great secret of their Herculean vigor lay in physical discipline. Newton's celebrated treatise on optics would not probably have exhibited as much accumen, had he not, while composing it, limited himself to a spare vegetable diet. The diary of President Edwards testifies repeatedly to the additional mental power which he derived from a parsimonious diet; and the half pint silver bowl, that measured his supper of bread and chocolate, still remains, a striking evidence of his temperance.* As we follow the philanthropist Howard through the prisons and lazarettos of Europe, we naturally think of a man, who never knew experimentally, what was disease or debility. Yet he himself declares, "a more puny whipster than myself in the days of my youth, was never seen. I was, politely speaking, enfeebled enough to have delicate nerves, and was occasionally troubled with a very genteel hectic." But a determined thorough change in his diet, remodelled his constitution, and gave it power to endure fatigue and privation, and to resist contagion, almost without a parallel.

What clergyman of the present day does not contemplate with amazement, the amount of labors performed by John Wesley; prolonged even to the verge of fourscore years and ten! Yet in his history, while a boy at school, we have the secret of his iron strength. "During a great part of the time that Wesley remained there," says his biographer, "a small daily portion of bread was his only food. Those theoretical physicians who recommend spare diet for the human animal, might appeal with triumph to the length of days which he attained, and the elastic constitution which he enjoyed. He himself imputed this blessing, in a great measure, to the strict obedience with which he performed an injunction of his father, that he should run round the Charter-house garden, three times every morning."†

* In the possession of Samuel Farrar, Esq. of Andover.

† Southey's Life of Wesley, vol. 1. p. 54.

The biographer of Richard Baxter, says that "he was certainly one of the most diseased and afflicted men that ever reached the full ordinary limits of human life." Yet that same biography gives us a detail of his ministerial and parochial labours, that may well humble the most healthy and efficient clergymen living: and it also gives us a list of no less than 168 works, which he composed and published. If I mistake not, however, the sermon preached at his funeral, furnishes us with the clue for explaining how he was able to sustain such Herculean labours, when it says, "his personal abstinence, severities, and labours, were exceeding great. He kept his body under, and always feared pampering his flesh too much."

But I must not multiply examples of this kind. Suffice it to say, that were as strict a corporeal discipline to be adopted by the ministers of the Gospel in our land; especially were this to be begun early; instead of hearing in so many parishes, the painful story of the pastor's wretched health, we should oftener hear his people expressing their astonishment that he was able to accomplish so much. Instead of being obliged to quit our stations, as not a few of us have been, almost as soon as we were established in them, and to resort to other pursuits, to save a ruined constitution a few years from the grave; we might flourish with vigorous health, in a green old age, among an affectionate people, whose piety would be our praise in this world, and whose souls, finally saved, would be our eternal crown. And were the appropriate physical culture, for which I plead, to become universal among ministers, who can doubt, that great as their labours now are, they might even be almost doubled, with no greater trial of the constitution than is at present experienced! True, so extensive is the debility of literary men, so weakened is the general physical stamina of the community, through the influence of excess in diet, and neglect of exercise, that we could not expect this reformation to be very rapid, even if commenced with vigor. But if nothing else can give to the sons of the church their lost power, the sooner the work is commenced the better.

Again ; this physical discipline would be of immense advantage to the church, by lengthening very much the term of ministerial life and usefulness. Able medical authority declares, that "the due degree of temperance would add one third to the duration of human life." We may smile incredulous at such calculations ; but whoever has faithfully adopted the rules of temperance and exercise, will be satisfied, that this is no exaggeration. What an immense loss then, does the cause of religion sustain, in the premature prostration of those who aim at the holy ministry ! And that too, with scarcely a suspicion on their part, as to the cause or the remedy, until it be too late. Hence let it be distinctly understood, that I do not charge this loss upon ministers as a moral delinquency. But if there be a remedy for it, and that remedy be understood, the same apology cannot be made for the next generation of pastors, if they refuse to adopt it.

Once more ; this physical culture of which I speak, would have a most propitious influence upon the piety of those in the sacred office. Those complaints, which are induced by neglect of this culture, are almost as destructive in their influence upon the religious character, as upon the physical and intellectual. Dietetic improprieties and neglect of exercise, are sure to produce irresolution, fickleness, irritability of temper, despondency, and melancholy. These feelings and passions are obviously most hostile to cheerful, healthful piety.* And such characteristics cannot exist in the minister, without imparting a sombre hue, and a timid despairing aspect, to the church under his care. For it is his business, both to "allure to brighter worlds and to lead the way : " And if any one will compare the features of the piety of these times, with that of our Pilgrim Fathers, he must be satisfied, that these very causes have directly and indirectly, produced the effects I have mentioned. Our an-

* "Physical and moral health are as nearly related as the body and soul." *Hufeland's Art of Prolonging Life*, p. 17. Preface.

cestors could demand assured faith in all who joined the church. But were this considered requisite now, how few would stand forth professedly on the Lord's side?

Now if I do not mistake, there never has been a period, when the church of Christ so much needed strong faith, vigorous hope, and resolute action, in her members, and firm health and long life in her ministers, as the present. Infidelity is bold, decided, and persevering, and must be met by a courage no less determined. Error—unincumbered with works of benevolence—is exploring the heights and depths of science, to gather materials for sustaining and garnishing her huge edifice. And men must be raised up to follow her with an eye that never blinks, into every recess; nay, to go beyond her farthest excursions, and bring back evidence, that after all, her researches are partial and superficial. Nor is this all: For the day is gone by, when defensive operations are all that are demanded of the Christian soldier. He must gird himself for a resolute and unyielding attack upon the strongest entrenchments of his Saviour's enemies. No rest is to be given to the Adversary, nor his emissaries, until all the kingdoms of the earth are recovered from his usurpations. And in such a warfare, strong faith must be joined to a firmness of nerve and muscle, that will shrink from no dangers or difficulties. For while one detachment of the soldiers of the cross are encountering the snows and ice-bergs of the arctic regions, another must be plunging into the miasms and damps of Africa and South America: a third, wading through the sands of the desert, to bring back the wandering African and Arabian to God: a fourth, proclaiming Jesus Christ and him crucified, in the mosques of Mecca and Constantinople: a fifth, scaling the wall of hostility, which China has attempted to build up around her, high as heaven: a sixth, following Howard in the midst of contagion and death, through the deepest dungeons and foulest lazarettos, to give liberty to the soul. And in such services, what can the men do, of shrinking nerve, and debilitated muscle—

the men, whose health every exposure or extra effort will crush—and whose assiduous attention must be given to nurse a broken constitution—the men, in short, of dyspeptic, or nervous habit? Oh, let not the church send forth such combatants into these high places of the field; however ardent their love, or strong their faith. For they cannot conquer impossibilities, nor work miracles, and must therefore, sink prematurely in the unequal conflict. Such were not the apostles and other early missionaries. Paul testifies to his manual labors and temperance in all things; and these were probably the secret of his enduring so many dangers, hardships, and labours. The diet of John the Baptist was locusts and wild honey; and that of Mathew, herbs and fruits. And Christ himself may be quoted as our example, in physical as well as moral culture: for being the son of a carpenter, he was doubtless early taught the business of his father; and tradition says, that the making of ploughs was his employment. And in still earlier times, we find the author of the Psalms engaged in the occupation of a shepherd: and as a late writer observes, “he had in his youth, muscular power to tear open the mouth of a lion, defending his prey; to resist the grasp of a bear, and to impart to a pebble velocity sufficient to stun a giant.” In the schools of the prophets, also, we find the members preparing the timber, bringing it from the mountains, and constructing with it, their own college edifices. And not unfrequently does the modern missionary find himself obliged to follow their example.

Let then, every association and individual, who are endeavoring in any way to restore to the debilitated constitutions of our days, the physical energy of earlier times, feel themselves nerved to new efforts, when they think of the immense importance of such a reformation to the cause of literature and piety. Neither the millenium of learning, nor the millenium of religion, can come without it, except by miracle. True, the work is Herculean. A current of opinion and feeling, broad and deep, that has long been set-

ting in the wrong direction, is to be resisted, stopped, and turned into a new channel. But the ground of encouragement is of the most cheering character. Most of the men, who are to be roused to a cooperation in this work, are intelligent, conscientious Christians—men, who need only to be convinced what is the course of duty, and they are ready to enter upon it with promptitude. Indeed, not a few of this character have already become satisfied that duty calls them to decided action in this cause. But above all, God has promised that his son shall have the heathen for his inheritance, and the uttermost parts of the earth for a possession: and we know that in this great work, he will employ the proper instrumentality. Now judging from the past economy of his providence, in the begun conversion of the world, we may conclude that he will no more employ as instruments, men, whose bodily constitution is debilitated through neglect of physical culture, than men whose piety is feeble through neglect of moral culture. We may expect, therefore, that God will prosper every judicious effort to connect primitive hardihood of body with primitive piety. He can at once carry conviction on this subject to the mind of every Christian, and bring together the whole church militant, as a mighty phalanx, in the cause of universal temperance and thorough physical culture. Indeed, we may rest assured, that sooner or later, he will do this; and when it is done, the millennial army will be marshalled. Then the conflict will be short; and soon *great voices will be heard in heaven, saying, the kingdoms of this world are become the kingdoms of our Lord and of his Christ, and he shall reign forever and ever.*



