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LONG LIFE

AND

HOW TO ATTAIN IT;

BY

ANDREW J. B. JENNER, M. D.

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BY

ANDREW J. B. JENNER, M. D.,

Member of the American Public Health Association,
etc., etc.



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BY ANDREW J. B. JENNER,

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PREFACE.

The contents of this book are not a mere rehearsal of theories propounded, or methods proposed, from time immemorial; neither do they deal in diablerie, or any other occult science; on the contrary, they consist in the narration of plain, everyday facts, written in the plainest possible language; and the methods proposed, and the advice offered, relative to the attainment of the object desired, are simply such as will appeal to the common sense of every intelligent reader; and consist, in the pointing out of such things as tend to prolong life, and such as will surely shorten it; recommending all to adopt the former, and avoid the latter.

This book is neither a popular nor professional medical work. Indeed, it has nothing whatever to do with the practice of medicine. For although, in order to prolong life, it is absolutely necessary, not only to take the greatest possible care of our

health, and endeavor, by every means in our power, to ward off disease, but we must also rid ourselves of the latter, as quickly as possible, should we, unfortunately, contract it. And although, in order to accomplish this latter purpose, we may have to call in the aid of the physician, nevertheless, at least in so far as the prolongation of life is concerned, his duties will begin and end, in effecting the object, for which he was especially employed.

The healing art deals only with specialties and individualities; whereas, that of prolonging life, is conducted upon general principles, and has nothing whatever to do with disease, as an entity; but merely incidentally: and as something to be either removed or prevented.

In this connection, it is worthy of note, that even disease, is not altogether an unmixed evil; for it is well known, that it is not always the most healthy looking and robust, who live the longest; but those who are weakly, and constantly ailing, frequently outlive the strongest; their very weakness compelling them to take that care of themselves, which common sense alone points out to be

necessary; and without which, they cannot possibly live very long.

Furthermore, it is also a fact, that the means employed to cure disease, though they may apparently effect the object sought, may, nevertheless, be actually instrumental in shortening life, instead of aiding in its prolongation.

Notwithstanding all this, however, the healing art is necessary, not only to aid in the removal of disease when present, but also to prevent it, by eradicating a constitutional tendency thereto. It may also help in building up the organism, and to enable it, not only the better to resist untoward influences, but also to throw off morbid conditions which, though not actually diseased, may, nevertheless, become so, unless suitable means are employed for the prevention thereof.

My object in writing the book, is not to discuss theories of any kind, but to narrate facts; by acting in accordance with which, any one may stand a very fair chance, not only of extending life to its utmost limits, but also of thoroughly enjoying it, even to its latest breath.

It is intended for no particular class; and is equally adapted to either sex; and is so plainly written, that whoever can read, can also understand it. And, in order to increase its practical usefulness, and to facilitate reference to any special point, an exceedingly copious index has been carefully prepared, and may be found at the end of the book.

In the hope, therefore, that many may be found, not only to read it, but also to profit by it; and that the general welfare may be enhanced thereby, this little book is started on its way by

THE AUTHOR.

Detroit, July 1st, 1886.

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LONG LIFE

AND

HOW TO ATTAIN IT.

INTRODUCTORY.

This life whereof our views are scant,
T's life, not death, for which we pant,
More life and fuller that we want.

—A. H. CLOUGH.

Most people desire to live as long as possible. It is perfectly right and only natural that they should, for the love of life is deeply implanted within us by an all-wise and beneficent Providence. Was it not so, many would succumb to hardships and trials which, under the existing state of things, they endure with comparative ease and composure.

The average duration of human life should be at least seventy years, and its limit about one

hundred and twenty years. Whereas, what are the facts? Millions of human beings die in their infancy. A still greater number fail to survive their fifth year, and countless thousands die annually of absolutely preventable diseases.

Why should this be so? What are the reasons for such a deplorable state of things?

It is my purpose, in this little book, to lay bare some of the causes and to suggest remedies for their removal.

Furthermore, I shall endeavor to point out the means whereby human life may be prolonged, even to its utmost limit.

CICERO,

In his dissertation on old age, very sagely says, "Surely nothing can be more natural than for the old to die. It is true that youth also is exposed to dissolution, but it is a dissolution obviously contrary to nature's intentions, and in opposition to her strongest efforts. Fruit, before it is ripe, cannot be separated from the stalk

without some degree of force, but when it is perfectly mature, it drops of itself; so the disunion of the soul and the body is effected in the young by violence; but in the old it takes place by mere fulness and completion of years."

Numerous instances might be adduced, not only in support of my previous proposition, but also in proof that my limit as to age has even been very considerably exceeded.

I shall, however, mention but one, namely, the case of

THOMAS PARR,

A common English laborer. This is not the oldest name of recent record, for in the year 1670, one

HARRY JENKINS,

Also an Englishman, of Yorkshire, died at the great age of one hundred and sixty-nine years; whereas Parr only lived to be somewhat over one hundred and fifty-two years of age.

But, the case of the latter is far more instructive, and much better adapted to serve our

present purpose, and, as it will be seen in the sequel, had it not been for certain untoward circumstances, even he might at least have equalled, if indeed he had not surpassed, the former in age.

THOMAS PARR

Was born in Shropshire, in the year 1483. He was engaged in farm work from his boyhood until he was more than one hundred and thirty years old. At the age of one hundred and twenty, he married his second wife, by whom he also had children. In the year 1635, he was introduced at the court of Charles the First, of England, by the Earl of Arundel, as a natural curiosity; but the change of air and the new mode of living caused his death during the same year, he being one hundred and fifty-two years and nine months old when he died.

DR. HARVEY,

The same who discovered the circulation of the blood, made a post mortem examination of this

man's body, but could find no internal signs of decay in any part thereof; even the cartilages were not changed into bone, as is almost always the case, even in ordinary old men.

By way of contrast, I will briefly instance the case of

LOUIS THE SECOND, KING OF HUNGARY,

and thereby show with what fearful rapidity the whole series of life's changes may possibly be passed through. This man was prematurely born; he was crowned when two years old; he ascended the throne at ten; he had a full beard at fourteen; he married at fifteen; his hair was gray at eighteen; and at twenty he died.

It is recorded that a grandson of Thomas Parr, previously mentioned, died at one hundred and three, and another at one hundred and twenty years old. There are, however, a large number of recorded cases, in which both men or women have either attained to or approached very nearly this last mentioned age, which is one of

the principal reasons why I have fixed upon one hundred and twenty years as my ordinary limit ; and, although I admit that these cases are comparatively rare, nevertheless, I am fully persuaded that by acting in strict accordance with the laws of nature, these comparative rarities would soon become mere matters of every day occurrence.

DISOBEDIENCE OF THE LAWS OF NATURE

Is invariably followed by condign punishment. Premature death, from whatever apparent cause, is invariably the result of violated law. Be warned, therefore, in time, and remember that whatever has a tendency to promote a high state of health, not only tends to prolong life and to ward off destruction and decay, but it also tends to the eradication of constitutional disease, and thereby removes another most potent cause of early death. None, however, need despair ; while there is life there is hope.

IT IS NEVER TOO LATE TO MEND.

Bad habits may be given up, and diseased conditions may be removed at any period of life. It is even possible to set back the hands on the dial of time when the clock is just upon the point of striking the final hour. But matters of such vital import should never be left until the last moment. The more inveterate the disease, the harder it is to cure; the older the habit, the harder it is to relinquish. They, therefore, who would prolong life must see to it that they put their house in order, strengthening such parts as are weak, remedying such as are out of order, and removing every obstacle which stands in the way of the accomplishment of their desires.

THE SEVEN AGES OF MAN.

For the sake of convenience, I shall, like Shakspeare, divide the life of man into seven stages or periods of existence, namely :

1. INFANCY.
2. CHILDHOOD.
3. ADOLESCENCE, OR YOUTH.
4. MANHOOD OR WOMANHOOD.
5. MIDDLE AGE OR PRIME.
6. DECLINE.
7. OLD AGE OR DECAY.

The changes which take place in each and all of these periods are obvious enough and sufficiently uniform ; but the dividing lines are not always so well defined, nor is the duration of either of these several periods always the same. In the latter respect, both theoretically and practically, the time allotted to each stage is of necessity, and for many reasons, arbitrary in the extreme.

In my opinion, however, the nearest approach to a perfect allotment would be somewhat as follows: Infancy to extend from birth until the end of the third year; when childhood begins, and extends to the completion of the twelfth year. Youth commences at the end of the twelfth year, and continues until the termination of the twenty-first year. The full period of manhood or womanhood has now been reached, and should continue to mature and increase in strength until at least fifty years have passed away; at which time, middle age, or prime, may be said to be attained. This stage should continue, with but little perceptible change, up to seventy years; when decline may be supposed to commence, and should slowly progress until about ninety, or until old age unmistakably begins to show itself. After this time, the tide of life should slowly ebb, until at the close of one hundred and twenty years, or thereabouts, Euthanasia, or an easy, happy death, closes the scene, and the worn-out body sinks into its final rest.

In a tabulated form the above would read as follows :

1. INFANCY,	from birth to 3 years
2. CHILDHOOD,	“ 3 years to 12 “
3. YOUTH,	“ 12 “ “ 21 “
4. MANHOOD,	“ 21 “ “ 50 “
5. PRIME,	“ 50 “ “ 70 “
6. DECLINE,	“ 70 “ “ 90 “
7. OLD AGE,	“ 90 “ “ 120 “

Special needs and special precautions belong to each of these several stages. It will, therefore, be necessary to take each one of them separately, and to point out minutely, not only the requirements, but also the precautionary measures necessary to its full development and proper maintenance, as well as to remedy any defects in each particular period.

There are, however, certain things absolutely necessary to the prolongation of life, which are imperatively demanded in all its stages. Chief among which are, an abundance of light and plenty of fresh air ; an ample sufficiency, both in

quantity and quality, of wholesome and nutritious food; a due proportion of labor and refreshment; and plenty of sound and refreshing sleep.

But even these are subject to modification, not only in accordance with the requirements of any particular period of life, but also of individual peculiarities, of differences in temperament, and of constitutional tendencies generally.

Moreover, climate has a very marked modifying influence upon all of these matters; and it is a subject which deserves much more serious consideration than that which is usually accorded to it.

Notwithstanding the fact, therefore, that the relative value of each of these subjects will be fully discussed when speaking of the several stages of life separately; nevertheless, I think that a few words upon these matters in general will neither be superfluous nor out of place. I shall, therefore, adopt this course and commence with the subject of

LIGHT.

With the single exception that too great a glare may be oppressive to the eye, it is almost impossible that any organized being, animal or vegetable, should have too much light. It is absolutely necessary to growth and development; and, deprived of its influence, everything is stunted and pale; owing to deterioration of the natural juices necessary to its healthy development; and although its mode of operation is by no means understood, it is, nevertheless, a motive and sustaining power in Nature of the very first order, and absolutely indispensable.

We now pass on to consider the undoubted necessity of plenty of

FRESH AIR.

In this consideration it is a fact worthy of note, that almost all the recorded instances of extreme longevity are of persons who had spent by far the greater portion of their lives out of

doors, and therefore in the fullest enjoyment, not only of fresh air, but also of light.

Abundance of fresh air is just as absolutely necessary to a long and healthy life as is a sufficiency of good and wholesome food. Indeed, the one without the other is comparatively worthless.

Not only do we need plenty of fresh air on account of the oxygen which it contains, and which is necessary, not only to vitalize the blood, but is also needed to burn up the waste matters of the tissues, which it accomplishes in a variety of ways; and in so doing, creates and maintains a proper amount of internal animal heat, without which it would be impossible for man to live at all; but we also require plenty of exercise, in order to facilitate the throwing off of these waste matters to make room for the new material, supplied by our food, after it has been mixed with the venous blood, and become vitalized, together with the oxygenated blood, in the lungs.

It is impossible to over-estimate the value of fresh air and exercise. They are among the most efficient means, not only of prolonging a life already healthy, but also of restoring one that is diseased. In many cases they are alone sufficient to accomplish this last named object ; but in all cases, other remedial means are altogether inadequate without their aid, in some shape or form.

Exercise in the open air should be taken all the year round, and in all kinds of weather. Many people are afraid of catching cold in the open air ; but there really is no need of any such fear. Far worse colds are caught within doors than out of doors. The more people accustom themselves to out-door life, and that in all kinds of weather, the less liable will they become to catch cold ; always provided that they neither sit or stand still. There are more severe colds caught, not only in waiting for a street car, but also in riding in one, than there are by taking the longest walks, and in the roughest kind of weather.

When in the open air, and especially if it is cold, keep the mouth shut, and breathe only through the nose; the mouth was never intended for respiratory purposes.

It is not only necessary, however, to take in plenty of fresh air out of doors, but it is equally imperative that we breathe pure air within doors. The want of proper ventilation in our public places, as well as in our private homes, is not only one of the chief causes of disease, but it is also one of the principal reasons why people die so soon. This is especially true as regards infants and young folks generally.

The subject of ventilation is fully discussed in my book, entitled, "HEALTHY HOMES AND WHOLESOME FOOD FOR EVERYBODY." For further information, therefore, upon this point, I must refer the reader to it, or to some other work wherein this most important topic is treated of in detail.

Without further comment, therefore, we will at once pass on to the consideration of the subject of

FOOD.

In so far as food is concerned in the maintenance and prolongation of life, all that is necessary is that it should be sufficient in quantity; and as to quality, that it should be plain, wholesome, nutritious and easily digested. A healthy stomach will always be satisfied with such, and a healthy appetite will ask for nothing more.

But, alas! alas! The refinements of so-called civilization, aided and abetted by a host of confectioners, cooks and caterers, have so ruined the stomachs and depraved the appetites of all but the very poor that, now-a-days, it is actually hard to find a person whose organs of digestion and assimilation are perfectly strong and healthy. Neither age, sex or condition is exempt from the diabolical devices of these destroyers of health; but all suffer alike; from the helpless infant who is stuffed with poisonous "candies," to the gray haired old epicure who gloats over the so-called delicacies which are daily set before him. Indeed, I firmly believe that high living, highly

seasoned, badly cooked and improper food, gluttony and drunkenness have done more to ruin man's health and shorten human life, than the combined effects of war, pestilence and famine have ever been able to accomplish in the destruction of mankind.

Highly seasoned food, and so-called made dishes of every description, should either be entirely avoided, or be but sparingly used by those who have any regard for the health of their stomachs: for no one can possibly live to be very old unless that precious organ be and remain in a tolerably healthy condition; and although, "variety is charming," too many different things should never be partaken of at any one meal; on the contrary, the fewer the better. A due and proper admixture of animal and vegetable food, however, is not only pleasant, but is certainly most conducive to health and longevity.

In the matter of drink, water and milk should always have the pre-eminence. Intoxicating liquors, of every description, should be but spar-

ingly indulged in, if used at all; and even tea and coffee should be much more moderately used than is commonly the case.

As a rule, three good meals should be taken during the day; but nothing should ever be eaten between meals, for the stomach requires rest quite as much as any other organ of the body. Take plenty of time to eat; and never sit down to a meal when hurried or worried, or when suffering from either mental or physical fatigue. Under such circumstances, a bowl of soup or a cup of good black tea would not only be very appropriate, but would also be amply sufficient. Always eat before going out in the morning, and never go out into the cold immediately after having partaken of a full meal.

With these few general remarks I shall dismiss the subject of food for the present, and briefly consider, in general terms, the necessity for a due proportion of

LABOR AND REFRESHMENT.

“All work and no play makes Jack a dull boy,” is an old saying, but I shall go a step farther and assert that he who works and won’t play, will soon see his last day. In the ardent and ceaseless struggle for fame or fortune, men are not only too apt to think that every moment which is not spent in the direct pursuit of the object of their ambition, is just so much labor lost and time wasted. But a greater or more fatal mistake could not possibly be made. In the battle of life, rest and recreation are not only just as necessary as labor, but they are also equally profitable, and the one requires just as much consideration as the other. There should be set times for each, which should not only be strictly observed, but neither should ever be permitted to encroach upon the other.

The allotted time for each should be fairly apportioned, and the character of the refreshment should always be exactly opposite to that of the

labor. For instance, the man who is engaged in a sedentary occupation in doors, should refresh himself with hard work out of doors ; he who works with the brain should find his refreshment in bodily labor. Both the body and the brain should be equally exercised, and each should receive its fair amount of rest. If the one is exercised to the neglect of the other, both equally suffer, the one from overwork, the other from comparative inactivity, both of which conditions have not only a tendency to injure the health, but also tend to shorten life. No habitually lazy man or woman has ever yet been known to live to an extreme old age. Mental and physical sloth are just as injurious to health and longevity as mental and physical labor are necessary ; in effect, the one is exactly the reverse of the other.

If both mind and body are equally and simultaneously worked, it is almost impossible that either of them shall be unwittingly overtaken ; for although the brain may fail immediately to perceive any unusual strain, physical fatigue

will force itself upon the attention, even against the will. Thus it is that mental overwork is more dangerous because it is more insidious. Slowly progressive collapse is always more formidable than that which occurs suddenly. The effects of mere physical overwork are easily overcome: the muscles may indeed become weary and worn by constant and excessive labor, but recuperation is comparatively easy, and may generally be overcome by rest alone.

Notwithstanding the fact that a due proportion of labor and refreshment is absolutely necessary to the prolongation of life, and that refreshment is often to be secured by the mere interchange of mental and physical labor, nevertheless, and in addition to all this, there is a vital need of an entire cessation from every kind of conscious labor, and this urgent requirement can only be met by indulging in plenty of sound and refreshing

SLEEP.

Sleep is needed for the restoration of both body and mind; by it the various organs and tissues of the body are renewed and strengthened by the elaboratory and depurative processes which are especially active during the hours of sleep; at the same time also, the blood vessels of the brain are comparatively empty; which not only gives them requisite rest, but also allows them to recover energy and strength for the efficient performance of the duties of the following day. The thorough fulfilment of this latter condition is a matter of the utmost possible consequence; for unless the brain itself has sufficient rest, the benefits to be derived from mere physical repose are comparatively unimportant.

In order that sound and refreshing sleep may be thoroughly enjoyed, it is absolutely necessary that the sleeping apartment shall be large and airy. Pure sleep cannot possibly be had in the absence of pure air. The bedroom, therefore, should be the largest and best in the house, in-

stead of the smallest, as is only too often the case.

Furthermore, it is absolutely necessary that all care, and everything which pre-occupies the mind, should be cast aside as soon as bed time arrives. Both body and mind should be so disposed, that there shall be absolutely nothing to distract the one, or disturb the other. To some this may appear to be somewhat difficult of accomplishment; but I can assure them that, except in the case of actual physical pain, it may be easily achieved, by the determined and persistent exercise of the will alone.

The requisite time for sleep varies in different individuals, and also in the different stages of life. As a rule, however, it may be stated that every adult should pass from six to eight out of every twenty-four hours in sleep. It is generally conceded that those who work with the brain require more sleep than those who are engaged in mere physical labor. Be that quantity what it may, however, it should all be taken at one

time, and unquestionably, night is the most appropriate season ; although there are many who suppose that it matters not when, so long as the requisite amount of sleep is had. Such people, however, are very greatly mistaken, as the appearance of those whose occupation compels them to turn night into day will abundantly demonstrate. The vitality of such people is invariably low, and their blood is always impoverished, owing to the want of the vivifying and restorative influences of light and sunshine.

No one should ever be suddenly awakened from sleep, nor should any one be compelled to get up when only half awake, as the brain or heart may possibly be seriously injured thereby. As a rule, however, people should always get up as soon as they are wide awake ; at all events, they should never attempt to fall asleep again ; because this thorough awakening is usually a sign that sufficient sleep has already been had.

In reference to the modifying influences of

TEMPERAMENT,

Constitutional peculiarities and the like, it will be sufficient here merely to state, that those of a sanguine or choleric temperament require less stimulus and more rest, than those of a phlegmatic or melancholic temperament; the latter require constant driving as it were; whereas, the former need to be constantly held in check. The food for the former should be plain and unirritating; that for the latter requires to be more piquant and stimulating.

The modifying influences of

CLIMATE,

However, require to be more minutely dealt with.

The direct influences of climate upon the duration of human life is a most interesting study. I, myself, have lived in the very hottest and also in the very coldest climates, the immediate vicinity of the North Pole alone excepted; and my opinion,

based, not only upon the result of my own observations, but also from what I have gathered from the writings and opinions of others, is, that a white man, with suitable surroundings, can be just as healthy and live, relatively, just as long in the one as the other. By this term *relatively*, I mean that if, as by many is believed to be the rule in such cases, you multiply the time it takes to arrive at maturity by five or six, you obtain the same relative standard in all cases. For example, if it only requires ten or twelve years for a youth to arrive at maturity, as is the case in many hot countries, that person should live for sixty or seventy years. This limit, however, more especially applies to the colored natives of a country, than to white people; even though the latter are born in that same country. I have observed that native whites do not reach the age of maturity so soon as the colored, by several years; but sooner, as a rule, than they would in a colder or more temperate climate. I have also found that people emigrating from a colder to a

warmer climate are often, comparatively speaking, rejuvenated; and precisely the same thing often occurs when people, who have been long resident in a hot climate, remove to a colder.

In order, however, that this shall be the case, it is at all times necessary that the diet and mode of life shall be in accord with the climate. It would be most absurd to suppose that a man could live in the same way and upon the same kind of food, and be equally well in the Tropics and in the region of the North Pole. These are the two extremes, it is true. Nevertheless, they serve more clearly to show that there must be a difference; and that that difference must be adjusted, in precisely the same ratio, as the difference in the climate.

As a general rule in such matters, the hotter the climate, the less need is there for animal food; whereas the amount of farina, fruit and vegetables should be correspondingly greater. Whereas, the colder the climate, the greater should be the amount of animal food consumed.

The same amount of fresh air and exercise is necessary in all climates ; the only difference being in the time of day most appropriate for its indulgence. The inhabitants of a hot country are generally lazy and indolent ; but such habits in no way add to their health or longevity. Indeed, I am inclined to think that this is one of the principal reasons why, as a rule, they do not live so long. They do not absorb sufficient oxygen ; and consequently waste and effete matters, which ought to have been burnt up in the oxygen, are never thoroughly gotten rid of ; but are either retained or re-absorbed into the circulation ; or they remain undisturbed, and so block up the way for the thorough restoration of all parts of the body.

There should also be a due proportion of labor and refreshment in all climates. Plenty of rest is also required, and so is plenty of sleep. The influence which climate exerts upon these latter lies principally in the difference as to time and methods of obtaining them. For instance, in hot countries, it is always advisable, and some-

times absolutely necessary, to rest, and even to sleep, during the hottest portions of the day ; consequently, active work must be begun earlier, and continued later than in more temperate regions.

The climate most conducive to longevity is that in which there is the least variation in temperature. Frequent and sudden changes are always depressing, because they disturb that nice equilibrium so necessary to the enjoyment of absolute health. Too much dryness or too much moisture is equally injurious ; an atmosphere which is slightly moist, however, is to be preferred to all others, because such a condition retards vital consumption, without in any way interfering with the restorative powers ; whereas, too much moisture would interfere with the natural process of waste and repair, and is always debilitating. On the other hand, an atmosphere which is too dry wastes the body by the undue abstraction of moisture therefrom, and the subsequent evaporation thereof. In short, it is in this as in all other matters, the neither too much or

too little of anything, but the glorious mean, which is not only the safest and surest, but which is always the best.

Having thus briefly introduced the subject in general terms, I shall now proceed to treat the subject in detail, commencing with

INFANCY.

This is pre-eminently the period during which to lay a broad and solid foundation. A stitch put in now, will not only save nine, but ninety and nine, or even more than that, in after years. This is also especially the time in which, not only to build up and maintain a constitution already good, but also to invigorate and strengthen any weak points which may not only be readily discerned, but also such as may be merely suspected, and also to search for and remove any taint or hereditary predisposition to disease, whether it be derived directly, from the parents themselves, or indirectly, from some other branch of the family, on either side.

By the way, there is a most important point in connection with

HEREDITY

which I might just as well make right here ; namely: It matters not what may be the opinions of people, professional or otherwise, respecting the transmission of diseases by parents to their offspring, before birth, this much is absolutely certain, that if the mother suckles her child, that child will be almost sure to take, not only any disease of which she may then be suffering, but it will also inherit all her constitutional ailments and tendencies.

THE SUCKLING OF INFANTS BY UNHEALTHY MOTHERS IS UNDOUBTEDLY ONE OF THE PRINCIPAL CAUSES OF INFANT MORTALITY,

and the unmistakable remedy, in all such cases, is altogether to abstain from suckling the child. As soon as such an infant is born, it should, at once, be put to some thoroughly healthy wet nurse, or it should be artificially fed. It should

not even for a single moment be put to its mother's breast: for if it is, it then and there inherits all her constitutional diseases.

I do not, for one moment, wish it to be understood that I, even in the very slightest possible degree, under-estimate the value of any of nature's processes: on the contrary, I am fully persuaded that if, in many things, we went right back again to first principles, we should not only live longer, but we should also be much healthier and happier by so doing. At the same time, I just as positively assert that it would be infinitely better altogether to feed an infant upon food artificially prepared, than that it should be brought up on milk, secreted by a mother who is suffering from any constitutional disease; even though, as frequently happens, such milk is secreted in superabundance. It is easy enough to dry up the sources of the milk; but it is ten thousand times more difficult to eradicate constitutional disease.

That milk is a very common vehicle for the

dissemination of disease everybody knows; so common, indeed, is the knowledge of this fact that it has even given rise to the common colloquialism, "Everything goes to the milk." Certainly every educated physician is acquainted with the fact, and takes advantage thereof in his practice.

One of the very best and surest means of eradicating constitutional disease, in an infant, is to administer the medicine to the mother, allowing the child to imbibe it in the milk, as it sucks it from its mother's breast. Furthermore, it is a very excellent plan to medicate the food of a milch mare or of a she ass, and administer their milk to patients of any age, for the eradication of constitutional disease. There is, at the present time, existing, in the parent and antecedents of one of the most universally beloved and respected monarchs that ever graced a throne, a most notable instance in support of this very point. In this instance the parent is, and the antecedents, for many generations, have been

afflicted with scrofula ; whereas, not even one, of an unusually numerous progeny, shows even the slightest sign of this most inveterate disorder ; which is entirely owing to the fact that, as soon as born every child was handed over to the care of a healthy and vigorous wet nurse.

Here, then, we have at our command, not only a most important means of preventing disease, but we may also take a tremendous stride toward the ultimate eradication of constitutional diseases of all kinds, by simply preventing the suckling of an infant by an unhealthy mother.

In my opinion, one of the most important socio-moral points to be decided in the comparatively near future is, whether or not a constitutionally unhealthy woman has any right to become a mother. Be that as it may, this much is morally, socially, and religiously true right now, to wit : No woman has any right whatever, human or divine, to entail disease and premature death upon her innocent and helpless offspring.

I lay such especial stress and emphasis upon

this particular phase of heredity, not only because I know that I am right, but also because I desire to drive this fact home, and impress it upon the minds of all with whom I come in contact; in the earnest endeavor thereby to save millions upon millions of infant human lives, and also help to expunge that foul disgrace to the enlightenment and civilization of this nineteenth century.

Not only in the matter of the milk, but also from every other standpoint, it is comparatively easy to see that women are almost entirely the channel through which hereditary disease is, not only spread, but perpetuated. The infant is literally bone of her bone, and flesh of her flesh; and it is of her blood alone, of which the whole is made. It is true that man may, and sometimes does have something to do, in this matter of heredity, but looking at the actual state of affairs as they are, both from a physical and physiological point of view, his share in the matter is absolutely incomprehensible, from our

present knowledge of procreation and conception. From a socio-moral as well as from a purely hygienic point of view, it would seem that, in order to eradicate constitutional disease, it is to woman that we must look, not only for help, but also as our basis of operations.

In this consideration there would appear to be a choice of two radical plans, namely, either to prevent an unhealthy woman from marrying at all; or, if she did marry, and gave birth to a child, forbid her suckling that child. Either of these means would go a long way towards the attainment of the end in view; and I sincerely hope and believe that, ere long, something will be done in this direction; for, under existing circumstances, not only is the terrible mortality among infants a disgrace to civilization, but constitutional frailty, as well as disease, is also perpetuated by those which survive.

Another cause, equally destructive of infant life, is

IMPROPER FEEDING.

It is scarcely necessary here to say, that the most natural and proper food for an infant is the milk of a healthy mother; and, for at least the first year of its life, it certainly needs nothing more. But it sometimes happens that, although in other respects the mother is perfectly healthy, this milk is not secreted in quantity sufficient to satisfy the wants of a healthy and vigorous child. In such cases, not only must this secretion be promoted in the mother, but some wholesome and efficient substitute must also be provided for the child.

I would call especial attention to these two last mentioned points; for in the usual manner in which these wants are supplied, not only is an enormous amount of mischief done to both mother and child, but herein also lies the remote cause of death of millions of infants every year.

In the first place, then, we will attend to the wants of the mother. What she really needs is an extra supply of wholesome and nutritious

food, chiefly consisting of milk and articles made with milk. She should take at least three pints and a half of thin gruel, made either of oaten or wheaten meal, cooked in water and milk, in equal proportions, in addition to her ordinary food. Under ordinary circumstances, this and this alone will be amply sufficient to effect the object in view. Under no circumstances whatever will she ever stand in actual need of wine, beer or spirits. I unhesitatingly and most emphatically repeat this. And yet, how often do we find, and I am sorry indeed to be compelled to say it, that even educated and reputable physicians will advise a nursing woman to drink fermented and even spirituous liquors to increase her flow of milk. I again repeat, and most emphatically affirm that, not only are such things never needed, but that whenever used, they invariably do an incalculable amount of injury both to the mother and her child. The injury done by this means is so much the worse, not only by reason of the fact

that the ill effects are not always perceptible at the time, although, sooner or later, in after life, they will inevitably tell, but also because it apparently effects the object desired; for these things do indeed cause an increased secretion of fluid by the breast. But is it pure and wholesome milk? Most emphatically, No!! It is not!!! It is a fluid of precisely the same kind as that secreted by cows that are fed upon distillery grains and brewhouse swill; poor watery trash at the best. But in the case of a woman who uses fermented and spirituous liquors to increase her flow of milk, there exists an additional cause of injury in the alcohol, which is not only contained in the liquor itself, but is also latent in the milk, as a result of the vinous fermentation started therein.

Infants, brought up on such stuff as this, are not only poorly fed, but their organs of digestion and nutrition are disordered at the very outset. One of two things, both equally injurious and unnatural, always happens; either the infant

lays on an undue amount of flabby and unhealthy fat, or it does not thrive at all, and consequently wastes away. In either case it is weak and sickly; and unless prompt and efficient remedial means are at once adopted, it either drags on a miserable existence, for a few short years, or it speedily pines away, and sinks into an early grave.

Moreover, I firmly believe that, even if such children live, they ever afterwards have an inclination, and sometimes even a positive craving, for intoxicating liquors; and that this is one of the most fruitful causes of the immoderate use of such things; and so becomes a prolific breeder of the body-consuming and soul-destroying vice, habitual drunkenness.

We will now pass on to consider the best method of

ARTIFICIALLY FEEDING THE INFANT.

Nature having provided a common food, not only for the young of mankind, but also for that

of every other animal, it stands to reason that any artificial food, which may be required, should bear as close a resemblance as possible to that which nature herself provides. Such being the case, all that would seem to be necessary would be to substitute the milk of some other animal for that of the human mother : but such a proceeding would scarcely meet the demands of the case in point ; for the milk of all animals differs somewhat in composition, to suit the requirements of each particular animal.

The milk of the mare and of the she ass more nearly approaches in kind to that secreted by woman ; but the milk of the cow is that most commonly used by man, and it is it which is usually resorted to, in this instance also.

But woman's milk contains more water, more sugar, but less fat than that of the cow. It is obvious, therefore, that in order to obtain the best substitute for woman's milk, if cow's milk is to be the basis, would be to sweeten and dilute it.

The method of artificial feeding which I am

about to describe, is one which I have personally proved to be efficacious, in many thousands of instances, and have never yet known it to fail. For the first three months of the infant's life, I recommend that it be fed with a mixture, composed of one part of cow's milk to two parts of hot water, and sweetened with pure sugar, in the proportion of one ounce to the pint of liquid. For the next three months, equal parts of milk and water, sweetened as before. For the third three months, two parts of cow's milk to one of hot water, sweetened as before. For the last three months of its first year, pure cow's milk merely raised to blood heat, 98 degrees of Fahrenheit.

The best way to make these dilutions is to add boiling water to cold milk, in sufficient quantity, that the mixed liquids shall fill an ordinary feeding bottle about one-third full, for the first three months ; about half fill it, for the next three months ; about two-thirds fill it, for the third three months ; in each case, sweetening the mix-

ture in the proportion above named, and giving it to the infant when at about blood heat, 90 to 100 degrees of Fahrenheit.

The infant should be regularly fed every two or three hours, for the first six months; every three or four hours, for the next three months; and every four or five hours, for the last three months of its first year.

After the first month or two, no infant needs food, and consequently none should ever be given, during the night. Its stomach requires rest as well as all the other parts of its body. It should always be fed when the mother retires, say at about ten o'clock; it will then require nothing more until about five or six o'clock in the morning. If began early, it is easy enough to accustom an infant to this mode of treatment: and if, during the night, it should happen to awaken and cry, soothe it to sleep, but give it no food; a spoonful or two of cold water may occasionally be given if the child seems to be thirsty or feverish.

An infant should not be fed every time it cries; on the contrary, when a child cries, it is a sign either that it is in pain, or it does so from mere fretfulness. A child that is regularly fed will never cry for food; but if it is neglected, who can blame it for crying. These latter remarks apply, with equal force, in the case of infants who are suckled by the mother; and if the advice here given was faithfully and invariably followed, how much marital misery would thereby be spared, and how much healthier and happier every mother and child would be.

I would again remind the indulgent reader that the above described method is neither a fancy sketch, or an impossible dream; on the contrary, it is the exposition of a well tried and abundantly proven plan; in support of the efficacy of which, and by way of illustration, I will quote just one case, out of the many thousands of infants, who have been brought up in this way.

I was called in to attend a little girl who was

always ailing. She was the child of an exceedingly bilious woman. Its skin was darker in color than that of any mulatto, and had been so ever since it was born. It was suckled by its mother until it was fourteen months old; and though apparently fat, it had always been weak and sickly, up to two years and a half old, the time at which I first saw the child.

I attended the mother in her next confinement; and from the first moment of the infant's birth, also a girl, it was artificially brought up as above described. When born, its skin was as dark as that of her sister, and continued so for a short time; but before the child was a year old, it could not only walk and talk, but its skin was as white as a lily, surmounted with the blush of the rose. She got through her teething well, and never had a day's illness during the whole time. No one, who did not know it, would ever have believed that the two children were born of the same mother.

Before I pass on, I would say that every

infant, artificially fed, should be supplied with at least two feeding bottles, in order that there may always be one that is perfectly sweet and clean, and fit for immediate use ; for the milk should never be mixed twice in the same bottle, if it can be avoided—for not only does the bottle require to be thoroughly cleansed, but it is as well to allow it also to be thoroughly aired, both of which necessities might easily be neglected, if only one bottle was in use. Moreover, the nipples and tubes should also be in duplicate, for the same reasons ; they should always be of black rubber—the white being always injurious, and sometimes even producing poisonous effects, upon the infants.

Under no circumstances whatever should an infant, of the first year, ever be given one particle of solid food, in any shape or form, nor should it have any liquid containing starch. Neither the stomach is fit to digest it, nor are the absorbents able to take it up. If such folly is persisted in marasmus or wasting will be the

inevitable result, owing to disordered stomach and glands. By the way, this last mentioned disease carries off millions of infants and children under five years of age ; and although perhaps not the only cause, the improper feeding of infants and very young children is undoubtedly the most common and prolific cause of this fell destroyer of infant human life.

THE CLOTHING OF INFANTS

has also much to do with their healthy growth and development, and is a subject of the utmost importance to their general well being.

Never put flannel next to an infant's skin. I am well aware that the advice here given is just the opposite of that which is usually offered. Never you mind, gentle reader ; I don't. Remember that I am pointing out the way by which length of days may be secured ; I am endeavoring to save infant life, and not to destroy it. I again repeat, don't irritate an infant's tender skin with flannel ; put fine cotton,

or linen, if you choose, next to the skin, and as much flannel as you like *over* that. Be careful, however, that you do not keep an infant too warm; you should endeavor to harden the child as much as possible, and not to coddle and pamper it so that even a breath of pure air, instead of being a blessing to it, may possibly give it such a cold as may end its days. You should strive to rear a hardy perennial, and not a mere delicate hot-house plant.

The pores of the skin should always be kept open, and not be choked up with rancid grease, which will soon be the case if flannel be constantly worn next to the skin. This is true of people of all ages, but it is especially so in the case of an infant.

An infant should never be heavily dressed, and those utter abominations, called "long clothes," should be abandoned as soon as possible. The limbs of an infant should always have full and free play; the clothing, therefore, should not only be light, but it should also be so put on as

not only to allow of this, but also so that no part of the body shall be either cramped or pinched.

Long life can only be attained by a proper preparation for it. Every organ and tissue of the body should not only be maintained in perfect order, but all should work in perfect harmony.

An infant should always have

**AN ABUNDANCE OF LIGHT AND PLENTY OF
FRESH AIR,**

both indoors and out of doors. Deprived of light, an infant cannot possibly thrive. It will always be pale and sickly, and its blood will be watery and thin; and all of this in consequence of mal-elaboration caused by a deficiency of the natural stimulus supplied by the action of light. Abundance of sunlight is therefore essential to the fullest development of infant life. Fresh air is also just as necessary. An infant should be in the open air as much as possible, and that in all kinds of weather, excepting such as is extremely boisterous and cold.

PLENTY OF SLEEP

is also indispensably necessary to vigorous infant life. During the first year, it should spend at least two-thirds of its time in sleep; during the second year, at least one-half; gradually decreasing the amount as age increases. In order to do this, it is obvious that the child must sleep in the day time. This is all well enough for the first two years; but the habit should be discouraged, and the time thus spent shortened as much and as soon as possible, after that age, in order to ensure a long and continuous sleep at night; this being not only so much better for the child, but also for those who have charge of it.

After the first month, an infant should never be allowed to sleep in the same bed with its mother; but should always sleep in a cot of its own, to be placed by the bedside of its mother.

The emanations from the bodies of grown persons are actually poisonous to infants and very young children. The disgusting practice of allowing children to sleep in the same bed with their

parents is one of the principal causes of weakness and ill health ; and is one of the reasons why they cannot sleep. Pure sleep cannot be had without pure air ; and without plenty of sound and refreshing sleep, no infant can possibly thrive. More fresh air and less soothing syrup would save the lives of thousands, which are sacrificed every year, to the diminished quantity of the one, and the too free use of the other.

The relative value of all these good things, however, will be greatly reduced unless the most scrupulous cleanliness is strictly observed. An infant and all its surroundings should always be "as sweet as a nut," and "as clean as a new pin." A wetted napkin should never be used again until it has been washed : merely drying it will not do. The retained ammonia will not only irritate the delicate skin, but a mild form of actual blood poisoning may be also set up, by the absorption of that element into the system, to say nothing of the disgusting odor which such filthy practices entail upon the unfortunate child,

and those who come near it. This latter fact, and a general want of cleanliness, is one of the principal reasons why so many infants do not thrive ; notwithstanding the fact that, in other respects, their surroundings are all that could be desired.

WEANING.

This is the most important epoch in an infant's life. Millions of them die at or about this period. The causes of this fatality are numerous, and most of them entirely preventable, arising as they do from carelessness, ignorance or folly. I have already spoken of the ignorance and folly which prompts parents and others to give to an infant "just a little bit of this," or "just a taste" of "whatever is going." I again refer to it merely to impress upon the minds of all the direful consequences of such mistaken kindness. It is often done "to make the child hardy" as they call it—but it will never do anything of the kind. Nature has not only provided the proper food for an infant, but she has also supplied the appropriate solvent for it.

The change from a diet, consisting wholly of milk, to one composed of a variety of articles, all of them more or less solid, should be gradually and cautiously made. At first, the food should still be given entirely in the liquid form, and should consist of such articles as oaten, wheaten or barley gruel, made with water, and strained—and when given to the child, mixed with an equal quantity of milk: boiled rusks, prepared in the same way, and so gradually coming down to stale bread and milk. The change to actually solid food should be extremely gradual. Tea, coffee and such things should never be given to an infant or even to young children: they are not only of no earthly use to them, but they invariably do a great deal of harm, even though it be not immediately perceptible. They always injure the nervous system.

About this time, signs of

SCROFULA, RICKETS AND OTHER CONSTITUTIONAL DISEASES

begin to show themselves. In all such cases, no time should be lost in consulting a physician, who is skilled in the eradication of such diseases. Mere palliation will be of no avail. They must be exterminated, root and branch. It can be done; and now is the time to do it, and the sooner such work is commenced, the easier will be its accomplishment.

CHILDHOOD.

Hitherto we have been dealing exclusively with infancy: but, of course, many of the preceding remarks are equally applicable to this time of life; especially during its earlier period. There are, however, special requirements and things specially to be avoided during this particular stage.

Increasing physical strength and conscious volition, together with the development of the

intellectual faculties, are matters requiring serious and careful attention ; especially the last of these.

PRECOCITY,

in any form, should at once be checked. It is a most fatal mistake to encourage it. Nature never intended that an old head should sit on young shoulders : had this been her intention, she would have completed her work on man long before the expiration of twenty-one years. Children should not only act as children, but they should invariably be treated as such ; and not as though they were a lot of little old men and women, as is too often to be witnessed now-a-days.

CHILDREN'S FOOD

should be of such a character as to develop both body and mind : and for at least the first seven years, it should consist entirely of farina, fruit and vegetables, and even from seven to twelve years of age, meat should be only very sparingly

allowed. Too much animal food is good for no one, but it is especially injurious to growing children. They require food which abounds in gluten and the phosphates; and this is abundantly supplied in cracked wheat, oatmeal, corn meal and bread, made from flour which contains the constituents of the whole grain.

They should also have puddings which contain a large proportion of finely chopped beef suet. They should also consume large quantities of milk, not only as a drink, diluted with water, but also in the shape of puddings largely composed thereof.

Plenty of fruit and vegetables in their season, and a good wholesome home made cake, are also appropriate articles of diet for children.

Tea or coffee should never be allowed; nor should hot bread, so-called biscuits, "cookies," or any other such abominations. Such things are of no real use to grown people; but for children they are positively injurious.

Young children require plenty of outdoor

exercise. They cannot be too much out of doors, all the year round, provided that they are properly clad in accordance with the season of the year and the state of the weather. It is easy enough for a child to overtask its brain, but it is almost impossible for it, voluntarily, to overdo the body. No anxiety, therefore, need be felt on account of the latter, but the former requires a great deal of watching sometimes.

Too great a love of books, and a desire to study, in a mere child, should invariably be discouraged, even to the extent of absolute prohibition if necessary. Childhood is pre-eminently the time for building up the body, in preparation for the cultivation of the mind, when the proper time arrives. An over active brain, in childhood, is nearly always the premonitor of an early grave. If by the end of the twelfth year a child is tolerably well grounded in reading, writing and elementary arithmetic, it will be quite sufficiently educated for its age. Cramming the brain of childhood with knowledge is infinitely

more injurious than stuffing their bodies with food. In the one case, there is a natural outlet ; in the other, there is not.

Children especially require

PLENTY OF SLEEP.

Every child, according to its age, should be in bed by seven o'clock, or half-past eight, at the very latest. Late hours in childhood are most unfavorable to length of days in manhood. Therefore, be warned in time, and see to it that your children get plenty of sleep. The children's bedroom should always be large, airy and thoroughly ventilated ; too many should never be put into the same room, much less into the same bed, as is only too frequently done, thinking thereby to economize room, and especially heat, in the winter. It is a great mistake.

ADOLESCENCE OR YOUTH.

This is the most important epoch in the life of every one. Just as a healthy and well developed child bids fair to become a vigorous youth, so does a steady and well spent youth foreshadow a stout and powerful manhood.

Youth is not only a period of growth and expansion, but it is also a time for garnering strength; any excess or waste of strength now, will cost ten times as much to redeem as the years go by.

In addition to the ordinary increase in bodily strength, and the development of the ordinary faculties, there are also, at this period, the most important changes taking place in the organism. Physical changes which equally affect the mental and the emotional spheres; changes upon the full and perfect accomplishment of which depends the future weal or woe of every individual, irrespective of sex or condition, at least in so far as this present life is concerned.

How many millions of youths and maidens are there who are cut down in the very flower of their youth? How many millions more are there who do not live out half their days; all of whose deaths are clearly traceable to past neglect, or present folly, at this particular period?

Not only is this particular stage fraught with the most momentous consequences to the individual, but it is also a time of intense anxiety and solicitude to all who have anything to do with the training and management of youth. The most unremitting care and watchfulness is requisite on all sides to guard against the many dangers by which the path of youth is, on every side, beset, and by which this stage of life is so peculiarly and especially surrounded.

First and foremost, it is the bounden duty of parents and guardians, of pastors and masters, to instil into the mind of the youth of both sexes, that

PERFECT PURITY

Is absolutely essential, not only to a long life here, but also to a happy one hereafter. There should be no mock modesty here. The plain unvarnished truth should here be told ; and the direful consequences of a departure from the strict laws of perfect chastity should be arrayed in all their hideous hues ; aye, and to such an extent as even to terrify, if needs be, those who will not be otherwise persuaded. It should always be remembered that ignorance and innocence are by no means the same thing ; and that “ to be forewarned is to be forearmed ;” “ an ounce of prevention is better than a pound of cure ” in this as in every other case.

Budding womanhood and expanding manhood are especially liable to fall into error unless previously fully forewarned ; a mere hint is not sufficient here ; the whole truth should be unreservedly told. The imperial and imperious passion, when it first takes hold, sometimes does so with such an iron grip, that, for a time at least,

it seems irresistibly to engulf and overwhelm all else besides. Especial precautions should therefore be taken to guard against evil communications of every kind; whether they present themselves in the shape of bad men or bad boys, of bad women or bad girls, but especially of bad books. The proprietors of boarding schools, and even the teachers in our common schools, should have a far more watchful eye over the morals of their pupils than they have now; for not only are the seeds of sexual vice sown at school, but the sin itself is largely practised there.

There is nothing on earth which so speedily weakens the body, debases the mind and shortens the life than the too early indulgence in sexual concerns. It is radically wrong even to dwell upon such things. Mental unchastity is just as injurious as physical incontinence, and very nearly as disgusting.

It is at this particular period when the defects of early female training come so prominently

into view. Boys and girls are allowed to be educated together, but how seldom are they permitted to play together. When boys are enjoying themselves in the open air, most girls are expected to remain indoors, dressing and undressing dolls, or wasting their time in some other debilitating pastime. Being so much with their elders, they cannot help hearing conversation, and becoming too soon acquainted with their habits and customs. Precocious habits and prurient ideas are not only thus engendered, but any natural proclivity in such direction is thereby confirmed and strengthened.

Oh! for a race of

“ TOMBOYS ”

once again. Their presence would do more to regenerate society, mentally, morally and physically, than all the preaching of the parsons, or the diatribes of the moralist, of whatever stripe he may be. This miserable system of indoors training for girls not only teaches them false

notions of propriety, and makes them deceitful and two-faced, but it also ruins them physically : and the want of sufficient fresh air and exercise and proper food in childhood and early youth, are principal causes of that disgusting and life-destroying disease commonly known as "green sickness," technically termed chlorosis.

It is not sufficient that girls should be permitted to take a formal walk in the open air, with their young bodies triced up in stays, and trammelled with absurd abominations, similar to those worn by their elders. On the contrary, they should not only be permitted, but actually compelled, if need be, to take plenty of active exercise in the open air; and their clothing should be of such a character that every limb, joint and muscle shall have full and fair play. We should then, in a very short time, have a race of mothers possessing in themselves all the elements necessary to a long and healthy life, and able also to transmit them to their offspring. We should then have less of the "nervous trash"

and more of the "buxom lass"; less of "the weaker sex" and more of "the better half"; for it is a well known and universally acknowledged fact that, as a rule, a girl is stronger than a boy when born. Why should she not remain so, or at least equal to him in strength?

In dealing with woman, good old mother Nature has amply supplied all the strength and endurance necessary to the prompt and efficient discharge of all that she will have to undergo; the one only condition being, that her laws shall be implicitly obeyed.

Notwithstanding the fact that plenty of exercise in the open air is absolutely necessary to the healthy growth and development of the youth of both sexes, it is, nevertheless, equally true that it should never be carried to excess. Whether this exercise be indulged in merely as a pastime, or whether it is undergone in the shape of daily labor, the powers of nature should never be overtaxed. Physical or mental fatigue is especially injurious at this time of life, and

should be the more carefully watched for and guarded against, by reason of the fact that the ardor of youth is only too apt to fall into it, unawares. This last remark is especially applicable in the case of mental fatigue.

Many suppose that brain work is hurtful ; this however, is a very great mistake. It is just as necessary to exercise the brain as it is the body ; nay, unless this is done, the latter, sooner or later, is sure to suffer. It is in this, as in every other case, the abuse and not the rightful use of things which does the harm. But, at the present day, the youthful brain is sadly overtaxed ; frequently even to actual exhaustion. So much indeed is this the case, that one of the crying evils is

OVER EDUCATION,

especially in matters which are of no earthly use in enabling one to earn an honest livelihood. How many thousands of youths there are, in this country, who are wasting valuable time over a lot of useless bosh, which ought to be spent in

the acquirement of a trade or profession, whereby they would be able to earn an honest living. How many young girls there are who are only helping the boys to fool away their time, instead of learning how to be useful, and to make home happy.

Again, how many thousands there are whose ambition drives them to undertake more than their mental capacity will endure. Still again, how many thousands there are who, in the insane desire to so-call "graduate," neglect, not only rest and recreation, but even their very food. In short, everything else is entirely "disregarded. What does it profit them ?

They fully accomplish their purpose and then they die !!!

Usually, there is much ado made, and more or less maudlin sympathy is expressed at the untimely end of such an one. But, common sense folk, and especially such as believe in the glorious law of "the survival of the fittest," will simply say that, the world is well rid of such fools.

Gymnasia and gymnastic exercises are all the talk now-a-days as a means of acquiring physical strength; but a gymnasium, as commonly conducted, would be about the last place on earth to which I would recommend any young person to go, who was in search of bodily health. Such places are good enough for those who intend to earn their living by playing "hanky panky," or by the exhibition of dangerous feats of foolhardy uselessness. Unless such institutions are carefully conducted by thoroughly competent persons, and are under the entire management and supervision of a man who is thoroughly conversant with anatomy, physiology and the science of health in general, incalculable and often irremediable injury might easily be done to persons of a weak and sickly organism; especially if, as is often the case, such folk are endowed with an indomitable will, and ambition and courage beyond their physical strength.

In any case, short, fitful and violent exercise of any kind is always injurious; whereas, that

which is beneficial and tends not only to increase the bodily health and strength, but also to prolong life, should be regular, moderate and untiring, and should never be carried to the extent of physical fatigue.

An abundance of plain, wholesome and easily digested food is especially necessary to the growth of both sexes. Plenty of milk should also be consumed by them. The food should abound in the phosphates as supplied by nature in wheat, oats and Indian corn. Made dishes, and highly seasoned food of any kind is especially injurious to them; for, notwithstanding the fact that the stomach of most healthy young people is very much like that of an ostrich, which is supposed to be able to digest anything, nevertheless, believe me, when I say that if such things are too freely indulged in in youth, a fearful reckoning will surely have to be met therefor, in after years. No stimulants of any kind are required; and therefore, none should ever be indulged in. The excessive use of tea and coffee, especially the latter, should also be avoided.

Plenty of sound and refreshing sleep should always be had, and the "burning of the midnight oil" is especially to be deprecated.

Before concluding this section on youth, I would especially forewarn them, against what is commonly known as "the sowing of wild oats." They are always a bad crop to sow, but still worse are they to reap. There is a terrible waste both of health and wealth, in the sowing and in the reaping. "Early piety," another nickname for the same kind of work, though apparently unrecognized, at the time, will most assuredly bear fruit in the future; it may be thirty fold, it may be sixty, or it may even be a hundred fold. "Whatsoever a man soweth, that shall he also reap." "If he sow the wind, shall he not reap the whirlwind." Debts of all kinds, contracted in youth, are usually paid with compound interest added, if left to be settled in after years.

We have now reached the period of full

MANHOOD AND WOMANHOOD,

and if the infant was healthy when born, if no unforeseen and unavoidable accidents have occurred to mar the happy time of childhood and of youth, and if the foregoing instruction and advice have been faithfully followed and fully carried out, the happy man or woman, as the case may be, will not only be a model of the species, but will be fully prepared to battle with the world, and will also make such a start in life as will almost ensure success in the ultimate extension thereof, even to its utmost limits.

It must not, however, for a moment, be supposed that, because the legal time of manhood or womanhood has been fully reached, manhood or womanhood is, on that account, complete; far from it. Life has really only just begun; very much remains to be done during the ensuing twenty-eight or twenty-nine years, in order that the prime of life may be attained in all its strength, and fullest energy.

In order to aid in the achievement of this great desideratum, the first and most important piece of advice that I shall give will be

GO SLOWLY.

Nobody ever did, nobody ever can and nobody ever will live both fast and long. "Slow and steady wins the race," is a good old English aphorism, and one that is especially applicable here. The steady young man will always be able to distance his faster, but more reckless competitor. The first spurt of the latter may appear more brilliant and so deceive the uninitiated, but the well held and steady pace of the former will surely win in the end. The horse that is run to win in a race is never sent off at the top of his speed, but is carefully held and steadied at the start, that he may be enabled, if necessary, to make an extra exertion to come in well at the finish. It is precisely the same in the great race for life. He who would win the glorious prize of a long and a well spent life

must start off slowly, and husband all his strength, not only that he may come in well at the finish, but that he may also be able to make an extra exertion, whenever called upon to do so, at any point of the journey, from the starting point to the winning post. Never go one bit faster, however, than is absolutely necessary to win the race, and to do it easily. "Be slow to make haste;" for nothing was ever done well that was done in a hurry; you will also live the longer for it. Whatever you do, do it thoroughly; never strike a blow one bit harder than is necessary to drive the nail in hand; but take care to drive it home.

THE HELTER SKELTER, hurry skurry, pell mell way of doing things, though apparently always going, almost always "gets left;" and if by chance it should happen to win, the victory avails but little, and possibly nothing at all; very nearly, if not all the available strength and energy, has been spent in its acquisition; exhaustion ensues, which, in the latter case, may possibly end in irretrievable collapse.

Always have an AIM in life ; and steadily pursue it in spite of all obstacles. Keep your eye firmly fixed upon the goal of your ambition ; and allow nothing to divert your attention from it. Enterprise and ambition are in themselves commendable ; but, like every thing else, when carried to extremes, not only lose all their good qualities, but frequently do an immense amount of harm. Have METHOD in all that you do. Carefully lay out your plans, and make up your mind just how you intend to accomplish them. " Make sure that you are right, then go ahead. " By these means, you will save yourself endless worry and confusion, which always tends to shorten life.

Learn to practise SELF DENIAL ; you will not then be so utterly cast down, even if some of your plans do fail ; for, as the old saying has it, " Accidents will happen, even in the best regulated families. " Work as hard as you like, provided that you allow yourself plenty of time for rest, recreation and sleep. Above all things

give yourself plenty of time to eat. If your place of business is some distance from your home, it would be infinitely better to take a lunch somewhere near at hand than to go home to your dinner, unless you have unlimited time at your disposal. If your employment be of a sedentary nature indoors, take plenty of exercise out of doors ; but, let that, as well as all your other acts, be done regularly and systematically, and not merely by fits and starts. Avail yourself of every opportunity to walk ; never ride when you can possibly walk.

MARRIAGE.

There seems to be no doubt whatever of the fact, that the married state is most conducive to longevity. All the instances recorded of those who lived to be extremely old have been of such as were married. From a purely ANIMAL POINT OF VIEW, the sexual instinct must be obeyed. Every organ of the body has its appropriate functions ; the due and proper performance of

which, not only conduces to health, but also tends to prolong life. Whereas, the disuse or abuse of any of them is invariably followed by disastrous consequences ; and just as perfect continence, during the period of youth, or while the body is maturing, is absolutely necessary to health and longevity ; so, in the same degree, is marriage necessary to the same ends, after the body has arrived at maturity.

Furthermore, from an EMOTIONAL POINT OF VIEW, marriage is equally conducive to health, happiness and longevity. By it love, in its purer and proper sense, is directed in its proper channel, mere lust is deprived of half its sensuality, and the necessity for illicit love is altogether prevented. Besides all this, the various vicissitudes of life are borne with greater ease and satisfaction when they are shared by another. For these, and for many other reasons, therefore, my advice to all is to marry just as soon as you feel yourself able to do so ; but, in this, as in everything else, is GO SLOWLY. Wait until you

find a true woman, one who will marry you for what you are, and not for what you possess ; one that is likely to prove, not only a help mate, but also a help meet for you.

Above all things, never marry AN UNHEALTHY WOMAN ; such a wife will be the curse of any man's existence ; such a marriage will not only shorten a man's life, but it will also embitter every moment of it. Besides, from a purely physical point of view, it is of far more importance that the woman should be healthy and vigorous ; for such as the mother is, such will be her offspring ; morally and physically, certainly ; and often mentally likewise.

Marriage was certainly never intended to make a man miserable ; nor was it instituted in order to keep his nose closer still to the grindstone, and his shoulder to the wheel. And yet, such is the unhappy lot of many a poor unfortunate wight to-day ; and the well and widely known existence of such a state of things is one of the principal reasons why those, who are wide

awake, altogether refrain from marriage. But such a state of things is neither conducive to health or longevity. Inasmuch, however, as my present purpose is not to write a treatise upon social and moral ethics, I shall simply content myself by warning the unmarried of the fact, that a life of dissipation and debauchery inevitably injures the health, and invariably shortens life.

Many of the preceding remarks are equally applicable to both sexes; the remainder, however, are applicable only to men. I shall, therefore, now have something to say especially suited to

WOMEN.

If a woman has escaped the many traps and pitfalls which lay in wait for her sex, especially between the age of twelve and eighteen years, and has reached the period of full womanhood, with health unimpaired, and her heart still free, she possesses credentials which entitle her to the confidence, respect and esteem of all sensible

men; and especially to such as are in search of a sensible wife. Such a woman as this is, to-day, comparatively speaking, "a rare bird in the land." Pains in the back, pains in the side, and pains all over the body, together with ailments and weaknesses, almost unheard of, much less experienced, in the grand old past, are now so common, even among young girls, that many people actually suppose that women are, by nature and of necessity, weak. But it is a gross libel on common humanity to say so, or even, for a moment, to harbor such a thought.

I have, elsewhere in this book, plainly stated that, when born, a girl is usually stronger than a boy. I supplement that statement here by saying that, as a rule, it is entirely the fault of herself or her parents, or of both, if, in after life, she does not continue at least as strong as her companion of the opposite sex. There is no valid reason under the sun why such should not be so. Moreover, there is not the slightest reason why a woman should not live just as long as

a man, provided that she conducts herself as a sensible creature should. But, as a rule, she does not, and she never will, if she lounges about all day in idleness; or if, when she does go out, she gets into a street car, even if she has only a block or two to go; or if, on coming out of a warm house, she stands waiting for a car, instead of walking to meet one, no matter how far she may wish to ride.

A lazy man is bad enough, in all conscience; but, in my opinion, a lazy woman is ten thousand times worse. The lame, but too frequently offered excuse, that women are unable to do this or that, is one of the main causes of real weakness in the sex. There is the greatest possible difference between the mere mental disinclination and the actual physical inability to do a thing. Many women are exceedingly weak, in the former direction; but very few are really so, in the latter. If they took more active bodily exercise, especially in the open air, they would very soon find, not only that they were able to

do a great deal, but they would also take pleasure in the doing thereof. But if they will neither work nor walk, their muscles must, of necessity, be flabby and lax, from want of use, and if this inactivity becomes habitual, they will be actually weak.

If, however, there is any so called "craze" agog, such as roller skating, masquerading, or any other useless but enervating and fatiguing work to be done, the women will far outdo the men, as a rule. Or, if it is to go boat riding, sleigh riding, or even common buggy riding, not only will they go out, but they will stay out all the day long, for that matter, if they can; and in such weather too as, under ordinary circumstances, they will hardly show their noses at the window, much less out of doors.

Women will go to a party or a ball, almost half naked, but if they go out into the streets, they must be tied, bound and bundled up in clothes, so that they can scarcely move; and if the weather is cold, there is very little more than their nose and mouth to be seen.

Again, in the matter of eating, they will hardly touch good, plain, wholesome and nutritious food, pretending to be so very delicate, and to have so little appetite; whereas, at the evening party or ball, they will fairly cram themselves with "chicken salad," "charlotte russe," and other such abominations; to say nothing at all of eating "candies," by the pound, at any time and all the time.

These and many other absurdities and inconsistencies are the real reasons why women are not strong, and why they do not live much longer than they do. But even if they do happen to hang on to bare life, many of these poor broken down invalids might just as well be dead as alive, for all the comfort they are to themselves or to anybody else.

I am well aware that there is much more truth than poetry in the above remarks. It is just as I intended. My sole object is to speak the truth and nothing but the truth. It is certainly neither to flatter women, nor to pander to their

many faults and foibles. I desire to show them their failings, in order that, at any rate, the more sensible among them, knowing wherein they err, may strive to make amends; and live in such a way as to be, not only hale and hearty, but also to continue in such a happy state, even to extreme old age.

I have previously stated that suitable matrimony tends to prolong life. My advice, therefore, to healthy women, as well as healthy men, is, to get married, by all means; but don't be in too great a hurry about it; and, above all things, don't marry in the expectation that you will, thenceforth, lead a life of useless indolence and frivolity. But, when you do marry, make up your mind, at the very start, to do your whole duty; and to take your full share, not only in all the joys, but also in the sorrows of wedded life; for, be well assured that both exist, even under the most auspicious unions. But the sorrows may be very much mitigated, if not altogether prevented, by the mutual determina-

tion and consent of both of the contracting parties.

In order to lessen the chances of an unfortunate union, be on the look out for a pure minded, honest, sober and industrious man ; one that will not make a fool of you, but one to whom you can look up, not only with confidence and respect, but also with constant, true and tender love. When you have found such a man, and he is ready and willing, marry him. If either of you have means so much the better ; but don't expect to begin where your father left off. In any case, never marry any man until he has provided you with a suitable home of your own ; always remembering that, " be it ne'er so humble, there is no place like home."

As soon as you are married, go into house-keeping at once. You will not only be healthier and happier, but you will also live longer in a home of your own, than you would in an hotel, boarding house, or even in your old home. These last mentioned makeshifts are, as a rule,

utterly destructive of all the true delights of matrimony; and degrade that holy state into one of mere animal gratification and sensual license. The activity both of body and mind, and the real pleasure which the personal management and superintendence of one's own home should always afford, will do more to make a woman strong and healthy, than any one, who has not experienced it, would even imagine.

In support of such statements as these, I appeal to the mothers and grandmothers of the present generation. Is it not a notorious fact that, as a rule, they look better, are actually stronger and healthier, and comparatively speaking, likely even to outlive their weak and degenerate offspring.

Chief among the causes of this deplorable state of things is the life of useless indolence indulged in by many of the young folks of to-day. Many of those who live in hotels and boarding houses, for lack of better to do, spend much of their time in tittle tattle, gossip and scandal; whereas,

busied with her home life and home duties, a woman imperceptibly grows stronger, healthier and consequently happier, for having such work to do. This is true even of those who, before marriage, would not have believed themselves capable of such things; and who, even when married, knew little or nothing of housekeeping in general, much less of its duties in detail. Experience, however, is a most thorough and practical teacher. All that is needed is the "grit" to begin, and the determination to continue and succeed. "Patience and perseverance overcome all difficulties" is a good old English saying, and one that bears testimony to its own truthfulness, every day. Don't be disheartened, but never mind if, occasionally, you have to pay what, at the time, appears to be rather a high price for your experience. In the long run, you will find that the knowledge thus gained has saved you many an anxious thought, and perhaps even "a heap of money."

When in that happy state, in which every

honest woman, who loves her lord, should wish to be, always keep about, and never, during any portion of this most important period, suffer yourself to give way to indolence or sloth; but "be up and doing," even to the very latest moment; it will be all the better both for you and your child, not only during the whole time of gestation, but also when the critical moment arrives.

Don't be afraid of going up and down stairs; it is a thoroughly healthful and strengthening exercise, the bosh and twaddle of many of the male old women of the present day, nevertheless and notwithstanding. It is to this foolish "molly coddling," and debilitating practices that the so-called "ladies" of the present day owe their degenerate weakness. Thousands of women die annually of a disease called puerperal or childbed fever; a disease almost absolutely preventable, being brought about by just such nonsense as above described, and by the direct or indirect interference with the simple laws of nature.

MIDDLE AGE OR PRIME.

We have now arrived at middle age, or what is commonly known as the prime of life; and the man or woman who has reached this stage in a vigorous state of health and strength, by the exercise of ordinary prudence, and a common sense adherence to the laws of nature, will stand a very fair chance of remaining in this happy condition, with but little change or deterioration, for the next fifteen or twenty years. Unfortunately, however, just at this very period, often indeed very much earlier, many people, instead of being literally in the prime of life, both mentally and physically, show by unmistakable signs, not only that the meridian of life has already been passed, but that the downward course has already begun.

For the especial benefit of all such, therefore, I shall here endeavor to stem the tide, and stay that downward course; and in so doing, I shall not only offer words of warning, whereby any

further lapse may be prevented, but I shall also point the way by which the harm, already done, may often be retrieved.

There are tens of thousands, both of men and women, who, in the exuberance of youth, and in the gush and rush of early manhood or womanhood, aye, and even up to the very verge of middle age, who set at open defiance, not only the laws of nature, but also those of common sense; and who, as a most justly deserved penalty therefor, barely live out half their days.

I have already said, and now repeat, and cannot too often reiterate, that premature death is invariably the result of direct or indirect violation of natural law; and just in proportion as life is abused, in the period above mentioned, so in a like degree will disease inevitably follow, and life will be correspondingly shortened; and although, by judicious care and appropriate treatment, these injurious consequences may be very much mitigated, if not altogether removed, nevertheless it must be most distinctly under-

stood, that the continuance in wrong doing will most assuredly end in premature and well merited death.

These violations of natural laws may be classified and summarized somewhat as follows :

1. MENTAL AND PHYSICAL OVERWORK.
2. EXCITING AND DEPRESSING MENTAL EMOTIONS.
3. UNDUE EXPOSURE TO COLD AND WET WEATHER.
4. INSUFFICIENT EXERCISE IN THE OPEN AIR.
5. OVER INDULGENCE IN ANIMAL PASSIONS AND PROPENSITIES.
6. INADEQUATE REST AND RECREATION.
7. WANT OF SUFFICIENT SLEEP.

Notwithstanding the fact that these several classifications are mutually dependent upon each other, both in relation to cause and effect, and also in general results; nevertheless, I think it will serve our purpose here to discuss them separately; even at the risk of a little repetition; for I had much rather be accused of prolixity, than of a want of perspicuity or insufficient distinctness. I will therefore take them in order, commencing with

MENTAL AND PHYSICAL OVERWORK.

Everyone is born with a certain amount of physical vitality and intellectual capacity which, to a very great extent, are unchangeable in quantity, though unlimited as to quality. That is to say that, by proper education and training, they may both be expanded to their utmost limits, but no farther. So that, in any given case, all other things being equal, that which would prove to be an overwhelming burden to one person, would be borne with comparative ease by another; and in the same way, mentally speaking, a problem easily comprehended by one individual, might be utterly incomprehensible to another. And so on, in many other ways.

The practical application of the above proposition is, that it is utterly useless to attempt impossibilities. A proper amount of physical labor increases the muscular strength; which is made evident by increased size and hardness; whereas, too much work causes, not only a

100 MENTAL AND PHYSICAL OVERWORK.

decrease in size, but also a loss of strength, made manifest by the softness and flabbiness of the muscular tissues.

Too much work, whether mental or physical, paralyzes the reparatory powers of nature; whereas, moderate labor stimulates them. Each and all should, upon every occasion, do their very best, both mentally and physically; more than this they cannot do, and this will do them good; whereas, the very moment that they overstep the mark, harm will immediately follow; and the result is not only injurious, but if persisted in, will end in exhaustion, more or less complete; and this if often repeated, will sooner or later, end in death by extinction, of the reparatory power.

If women ever do, it is usually the brain which is overwrought, whereas, in man, both body and brain are often overtasked. It is very rarely indeed that women do too much bodily work; the mischief is that, as a rule, they do by far too little. It would be infinitely better, both

for themselves and for everybody else, if this order of things was reversed ; if they exercised their bodies more, and bothered their brains the less. We should then have stronger mothers and healthier children ; a result so sadly needed now-a-days.

In any case, the REMEDY, for the ill effects of any kind of overwork, is obvious ; to wit, an entire change both of scene and occupation ; a directly opposite course must be pursued ; and if the constitution is very much broken down, absolute rest must be observed ; at least for a while.

EXCITING AND DEPRESSING MENTAL EMOTIONS.

This is the next subject for our consideration ; and a most important one indeed it is. I firmly believe that there have been more men and women in the world, whose untimely death has been the direct or indirect result of wasting care, than of any other single producing cause in existence.

It is not my purpose here to urge THE DOCTRINE OF THE TRINITY, from a theological point of view ; but I do intend, most strenuously, to maintain it, from a human standpoint. Man is a trinity, most assuredly ; and unless that trinity is maintained in perfect unity, the “ sound mind in the sound body,” cannot possibly exist. The connection between the mind and the body is so intimate, that what affects the one must, of necessity, influence the other.

The elements which constitute this human trinity are the INTELLECTUAL, THE MORAL AND THE EMOTIONAL.

The intellectual sphere is comprised in the brain proper ; the emotional, in the great sympathetic ; and the animal, in the medulla oblongata and spinal cord.

In order that perfect health may be enjoyed, it is absolutely necessary that these several elements shall act in perfect harmony ; and any disturbance of that harmonious action, will inevitably result in a corresponding departure from

absolute health. At the same time, it is not only quite possible, but it often happens, that either of these elements may be disordered, the others remaining comparatively sound. For instance, the intellect may be terribly deranged, while the animal and the emotional spheres continue in tolerable health. This state of things is frequently witnessed in the case of lunatics, who are often remarkably strong, physically, and exceedingly docile and affectionate, emotionally.

Again, the animal organism may be frightfully diseased, deformed and debilitated; and yet, all the intellectual faculties may remain perfectly bright and clear, even to the very last.

Finally, the emotional sphere may be all astray, while the brain and the body continue comparatively healthy. Although, it must be admitted that this last state of things is much less frequently seen than either of the others, excepting paroxysmally; indeed, the probabilities are strongly against such a state of affairs, at least in so far as bodily health is concerned.

The sympathetic nervous system is not only the seat of the emotions, but it is also the controller of nutrition. This is a most important point to bear in mind ; as also is the fact that DIGESTION and NUTRITION are two very different things, and entirely distinct the one from the other. On the one hand, digestion is purely a *chemical* process ; and is governed by a portion of the *cerebro-spinal* nervous system ; on the other hand, nutrition is purely a *vital* process, carried on through the agency of the *sympathetic* or *organic* nervous system.

Furthermore, notwithstanding the fact that this great sympathetic communicates both with the brain and with the spinal cord, nevertheless, it is a system perfectly distinct from, and independent of either of them. What are technically known as the abdominal ganglia of the great sympathetic constitute, not only the seat of the emotional sphere, but they may also be looked upon as the centre of the entire system. The central point of all is known as

the *solar plexus*, supported by the *semilunar ganglia*. This sun and moons of the sympathetic nervous system have just as much to do with the well being of each individual human microcosm, (little world) as the great and glorious sun and moon have to do with the entire universe. When they shine, all is bright and cheerful; but when they are obscured, all is shrouded in darkness and gloom. So much then by way of preface; by just so much shall we now be enabled, intelligently, to discuss the all important subject before us.

The medium of communication between the mental, the physical and the emotional spheres is, what is technically known as the *vaso motor* or vessel moving function of the great sympathetic. Thus it is that changes in blood pressure may be, at once, the cause and effect of the several sensations produced by our various emotions, whether they be painful or pleasant, healthful or hurtful. Hence also it is that our bodies are either nourished or starved, strengthened or weakened, according as our mind is either disturbed or at ease.

Both exciting and depressing emotions are highly injurious to health, and tend to shorten life. But, the latter perhaps, especially if given way to, are more intense and enduring, and consequently are more destructive. Excessive joy seldom kills; whereas, extreme grief often ends in death.

The business man, devoured by the insatiate greed of gain, the gay young man or woman, absorbed in the so-called pleasures of the world, intoxicated by the giddy whirl of fashion, and living at least three days in one, and the neglected wife or anxious mother, eaten up with grief or consumed by care, are each and all of them travelling on the same road; the road that leads to ruined health, and a premature grave. Discouragement and disappointed hopes, if not constantly grappled with and overcome, only too easily lead to despondency and despair. Restlessness and discontent are enemies to peace of mind; they undermine the bodily health, and consequently shorten life.

The most depressing emotions are FEAR, ANGER and ANXIETY. A sudden fit of either of the first two will, for the moment, paralyze the entire nervous system; and through it, the circulation. Many a sudden death has resulted from both. A more moderate but prolonged attack of either, though for a time, it may appear to excite the nerves and quicken the circulation, nevertheless, the depression which succeeds will more than counterbalance the previous excitement. Anxiety, though perhaps not so furious in its onslaught, is much more intense and lasting in its effects, and just as injurious in its consequences. The appetite is lost, and what little food is taken, is neither digested nor assimilated; and both body and spirit waste for lack of proper sustenance.

Again, sudden transitions of CONFLICTING EMOTIONS are equally mischievous. Alternations between hope and fear, hope and anxiety, joy and sorrow, and the like, cause constant variations in the blood pressure, and so do quite as much, if not more real harm, than sudden and violent

emotions. There is certainly a much greater strain upon the general system, and more rapid wear and tear in the former than there is in the latter; especially when we remember that another equally depressing emotion is, almost of necessity, superadded to the others, to wit, heartrending, sickening suspense.

Speculators, stock jobbers and all such as strive to make money too fast, and outside of regular and legitimate business methods, are excellent examples of those who are, not only ruining their health, but are shortening their lives as well. Exciting emotions are nearly, if not quite as bad as those which depress. Most people are capable of an immense amount, both of mental and bodily labor, if it is only coolly, calmly and deliberately done. But if the same amount of work is rushed, it is sure to be followed by fatigue, and if this method become habitual, exhaustion must, of necessity, sooner or later ensue. It is the hurry and excitement that do the mischief. It is this high pressure work that wears out and bursts the boiler.

It is foolishness to attempt to run an engine, of ten-horse power, at forty-horse speed.

Nature has supplied every man with boilers sufficient, and fuel enough, to run the engine at its utmost speed ; if more than this is attempted, rack and ruin must inevitably ensue. But, in the ceaseless struggle for wealth, everything else is either forgotten or ignored : men can neither find time to ask, nor have they the inclination to accept, advice, or heed a warning, but hurry on in their mad career, until at length, they are taken aback, with every stitch of canvass set ; and lucky indeed they are if they escape instant foundering.

This insatiate scramble for wealth, power or fame, is killing thousands yearly. Of what use is power, wealth or distinction, in the absence of health and strength to enjoy it ? The accumulator of riches seldom lives to enjoy them : and, as if it were a direct rebuke for his folly, how often does it happen that those who inherit them, take just as much pains to squander, as their ancestors did to acquire them ?

Such men would live much longer and be far happier by making good use of their wealth, during their lifetime ; and, with but slight reservation, leaving posterity to take care of itself. There would then be much more real independence and true self-reliance ; and an immense stride would be made towards the DOWNFALL OF MONOPOLIES of every kind, and the establishment of genuine equality. The fittest only would then survive ; and whosoever rose to the surface would be he, and he alone, who had earned the position, and would therefore be justly entitled to its advantages.

UNDUE EXPOSURE TO COLD AND WET WEATHER.

There is all the difference in the world between the ordinary and proper care of oneself, which every sensible person will take, and “molly coddling” or the taking of too much care, which, like too much of any other good thing, is no good at all.

On the other hand, carelessness, or too little care, is just as reprehensible.

In youth and in adult age, people are only too apt to think that they "can stand anything;" and that no exposure can possibly hurt them; and, for a time, experience apparently confirms that belief. But, sooner or later, such indiscretion will surely meet its reward. Even in childhood, this want of care is glaringly manifest. Some parents will send their children out into the cold insufficiently clad, with the idea that, in so doing, they are hardening them. This hardening process is all well enough, if kept within reasonable bounds; but if these bounds are exceeded, weakness and not strength will be the result. Others, again, smother their children with clothes; so much so, sometimes, as even to impede their free and active movement. This is not only weakening, but pernicious, in many other respects.

Again, sudden changes from heat to cold are insufficiently guarded against. People often

leave their houses, shops, offices, churches and theatres, all of which are, as a rule, much overheated, and go out into an atmosphere, frequently even below zero, and commence talking as fast as their tongues can go. This is not only very foolish, but highly injurious, and is the principal cause of the so-called catarrh, with which so many are troubled. When leaving a hot for a colder atmosphere, the mouth should always be kept closely shut; and remain so until the circulation has been thoroughly aroused, and the lungs have become accustomed to the change of temperature.

Again, people are very incautious in the matter of UNDERWEAR. That which is worn next to the skin should be of the same weight all the year round; especially in a changeable climate. It is a very great mistake to make so great a difference in this respect, as is usually done; and such practices often give rise to serious consequences; and even fatal results may sometimes happen; especially when, as is too

often the case, people are in too great a hurry to exchange the heavier for the lighter clothing.

All the mischief arising from this cause may be easily obviated, simply by wearing moderately heavy underclothing, all the year round; any required change being made in the number and thickness of the outer garments. It should always be borne in mind that it is literally true that, *whatsoever will keep out the cold, will also keep out the heat.*

Wet feet, and getting "wet through" are, directly or indirectly, the cause of death of tens of thousands of people yearly. Many people are extremely careless in this respect. Just as soon as possible, the wet clothing should, not only be replaced by that which is warm and dry, but the body should also be thoroughly rubbed and dried; especially such parts of it as have been particularly exposed to the wetting.

Sitting in a draught, and cooling off too quickly when heated, are also frequent causes of serious mischief, and thereby tend to shorten life.

INSUFFICIENT EXERCISE IN THE OPEN AIR.

I have already dwelt, at considerable length, upon the absolute necessity of plenty of fresh air and exercise. I shall, therefore, merely refer to the subject, in this relation, still further to impress upon the mind of the reader, the vital importance of what has been already said, and again to remind him that the want of sufficient fresh air and exercise, will not only seriously injure the health, but will most assuredly shorten life.

OVER INDULGENCE IN ANIMAL PASSIONS AND PROPENSITIES.

The modes, by which these offences against the laws of nature may be committed, are simply innumerable. For our present purpose, however, it will be amply sufficient if we briefly discuss the three that are most important; to wit: DRUNKENNESS, GLUTTONY AND SEXUAL EXCESS.

The use and abuse of alcohol is a subject upon

which argument will never cease. This much, however, is absolutely certain, that, sooner or later, the abuse thereof will overwhelm its miserable victim, and drag him down into an untimely and dishonored grave. This abuse may be practised in a variety of ways. The man who, occasionally, goes on "an out and out spree," does not injure himself half as much as he who is always "tipping." The tippler in season is not half as bad as he, who tipples both in season and out of season. These liquors, if used at all, should always be taken with the food; then they sometimes do good; but if taken between meals, they invariably do harm. They are especially injurious to the young, and to those who lead a sedentary life; and also when taken early in the morning.

WINE AND BEER are harmless as compared with ardent spirits. Those last should never be used by anyone, except as a medicine; and not even then, unless actually needed, and such need vouched for, by a conscientious and reputable

physician. Fully nine-tenths of the mischief done by intoxicating liquors, is caused by the insane but prevalent habit, of drinking ardent spirits, raw. This practice disturbs the brain; and destroys the stomach, the liver and the kidneys. In short, it literally consumes both body and soul. The scope and limits of this book forbid that I should expatiate upon this dreadful curse; let me therefore beseech the reader to read, mark and learn every word that I have written upon this subject, for in very deed, the very pith and gist of the whole matter, is therein contained.

Closely allied to the vice just mentioned, but one that is much more frequently indulged in, is **GLUTTONY**. This last named epithet is, perhaps, a little too severe to characterize the extent to which this vice is carried, by the great majority of people. It is, nevertheless an incontrovertible fact, that nine out of every ten, of all those who can afford it, eat far more than is either requisite, or even necessary, to maintain them in vigorous

health and strength. Over indulgence in the use of ANIMAL FOOD, is especially frequent; and is one of the principal causes of those serious diseases, affecting the abdominal organs, especially the kidneys; and the over indulgence in the use of TEA and COFFEE, is a leading cause of many of the nervous diseases, so common among all classes of the community. DIABETES, GOUT AND BRIGHT'S DISEASE OF THE KIDNEYS, are three of the most common and fatal diseases, resulting from over indulgence in, and malassimilation of articles of food and drink.

SEXUAL EXCESS, though the last, is by no means the least, of the three abuses, at present under consideration. It matters not whether this excess is committed, in the practice of secret vice, or whether it be in the ordinary and natural way; it is equally injurious, and is sure to shorten life; and, although, for a time, the ill effects may not be very apparent, nevertheless, be well assured that, sooner or later, though by slow, but by sure degrees, if this vice be con-

tinued, its unfortunate victim will sink, deeper and deeper into the mire; until, at length, he or she, as the case may be, becomes a mental, physical and emotional wreck.

INADEQUATE REST AND RECREATION is indirectly the cause of death of thousands of people annually. Many people suppose that they can, with impunity, neglect everything for business, during ten or eleven months of the year, and make up for it all, by a month or six weeks of rest and recreation. This however, will not suffice. Nature's laws cannot thus be broken and ignored. I have elsewhere stated, that the measure of rest, should be always commensurate with the amount of work performed; anything short of this, will be inadequate, and will, inevitably, shorten life.

This is especially true in respect of mental and emotional labor.

Good old mother Nature, has not only supplied us, with mental and physical power, sufficient for every ordinary need, but she has also provided for

occasional overwork. But, unless sufficient time be allowed for recreation, her restorative powers are hindered; and if this suicidal course be long continued, they may be rendered powerless; exhaustion and ultimate collapse will then be inevitable.

WANT OF SUFFICIENT SLEEP.

Balmy sleep is indeed tired nature's sweet restorer. By its aid, both mind and body are refreshed and renewed: without a sufficiency thereof, both will speedily fail. Everybody, high and low, rich and poor, old and young, from the cradle to the grave, stands in absolute need of it: aye, and plenty of it too.

Nature's law, in reference thereto, is inexorable. Whosoever breaks that law, never goes unpunished. Retribution may be slow, but it will be none the less sure. Whosoever robs himself of sleep, robs himself of just so much life. These things are absolutely and literally true, notwithstanding the fact that,

now-a-days, the diametric opposite is that which is usually preached and practised. In these days, every business man seems to think that he saves both time and money, by travelling at night: possibly it may be so: but what shall it profit him if, in the end, he not only loses his health, but also shortens his life, by so doing.

Many thousands there are who, after working hard all day, spend the greater part of the night, also at work. What shall it profit them? They shall pine away and die. Many spend the greater part of the night in riot and debauchery. What shall it profit them? They shall sink into an early and dishonored grave. In each and every similar case, the true and righteous verdict would be,—It justly served them right.

Every one, who expects to live long, must spend a certain proper proportion of every twenty-four hours, in sound and refreshing sleep. The precise time needed by each individual, varies almost as much as does the individual. There is, however, a good old English saying,

which comes pretty near the mark, which says that six hours of sleep are required by a man, seven by a woman, and eight by a fool. But, rather than the time should, in any case, be shortened, I would that all the world were fools, and took the fool's allowance, at least, in the matter of sleep. It would certainly do no one any harm; but the great majority of mankind, would be much the better off for it.

INSOMNIA, or want of sleep, causes insanity; both mental and emotional. Softening of the brain, disease and disorder of both the nervous systems, and also of the circulation, together with general prostration, are also some of the consequences of long continued want of sufficient sleep. In some, the ill effects are more tardy in making their appearance; there are those again, who can stand this sort of thing much longer than others. In any case, however, be well assured that the injury to the constitution, though unseen and unfelt for a time, is nevertheless in active progress; and, if unchecked, will still proceed until,

at last, it lands its victim either, in a madhouse, or a premature grave.

Any one, who has carefully read and considered the foregoing remarks, cannot fail to have perceived, that any excess or deficiency, in relation to matters which, if properly managed, tend to health, happiness and long life, are alike productive of disorder, disease, and premature decay, when either abused or disused. Moreover, at the same time, and in the same way, the appropriate remedy, in each particular case, must also have become distinctly apparent; and which may be summed up and generalized, in the following advice,—*Be careful to practise moderation in all things, and studiously avoid excess.*

DECLINE.

“The statement that age impairs our strength is not without foundation. But after all, imbecility of body is more frequently caused by youthful irregularities than by the natural and unavoid-

able consequences of long life. By temperance and exercise, a man may secure to his old age no inconsiderable degree of his former spirits and activity. If it must be acknowledged that time inevitably undermines physical strength, it is equally true that great bodily vigor is not required in the decline of life. A moderate degree of force is sufficient for all rational purposes. But the faculties of the mind will preserve their powers in old age, unless they are suffered to be languid from want of due cultivation. After a certain point of maturity is attained, marks of decay must necessarily appear.”—*Cic.*

Among the earliest perceptible physical signs of this natural decline is an alteration in the structure, and a wasting of the muscular parts of the organism. Both the voluntary and the involuntary muscles are involved in this process of degeneration. This condition arises from the imperfect renewal of the muscular fibres, lost in the ordinary process of waste.

IN INFANCY AND YOUTH, the reparatory powers

proceed with greater force and rapidity than do those of waste. In ADULT LIFE, they are about equalized ; but, on the appearance of AGE, this order is reversed ; and the processes of waste are in excess of those of repair.

There is not only a wasting and softening of the external muscles, but a similar process is going on within. That the respiratory muscles are affected is made evident by the increased shortness of breath when ascending a hill, or even when going up stairs, or whenever any unusual effort is made. The muscular structure of the heart and arteries betrays its deterioration, in the comparatively sluggish circulation, especially towards the extremities : and the abdominal muscles, by the torpidity of the bowels, and the diminished expulsive force of the urinary bladder.

As age advances, there is a natural inclination to indulge in both mental and physical repose ; the latter being one of the principal causes, not only of the muscular failure already alluded to, but also of another unfortunate and weakening tendency, namely, the undue deposition of fat.

Notwithstanding the fact, however, that these predispositions exist, and that the bodily activity is actually less, and the general movements are not as elastic as of yore, nevertheless, anything approaching to indolence and sloth must be most strenuously avoided, by all such as desire to prolong their life. Unless this is done, not only will all the organs waste, and grow weaker from disuse, but quantities of effete matter will be retained from want of exercise, and will be reabsorbed into the circulation; thereby, not only overloading the blood with useless material, but also increasing the work to be done, by organs already taxed to their utmost ability. Under such circumstances as these, a break down is but a natural consequence: and the result of such a catastrophe is apoplexy, paralysis, or some other disorder common to this time of life.

To obviate all this, regular exercise must be taken daily, and the skin must be kept in a thoroughly healthy condition. For this purpose and to this end, in addition to walking and other

kinds of out-door exercise, there is a form for in-doors which, though equally suited to people of every age, is peculiarly adapted to those who have reached, or even passed the meridian, or prime of life. It has also the great additional advantage, that it needs no expensive machinery or apparatus of any kind: and yet, it is the most generally effective exercise of any known. It simply consists in placing the body in a position, and exercising it as though in the act of constantly heaving at a windlass, with both hands, in the endeavor to hoist a very heavy bucket from a very deep well.

By this extremely simple operation, every muscle in the body, from the top of the head to the sole of the foot, both inside and outside, is or should be brought into play: and that in such a manner as to thoroughly equalize the exertion.

This exercise should be taken several times a day, for half an hour at a time, alternately heaving and resting every few minutes. The best times for such exercise would be the first thing

in the morning, the last thing at night, and in the forenoon and afternoon. When taking the exercise, the coat, at least, should be removed, and the exercise taken coolly, calmly and deliberately, and as though actually heaving up an exceedingly heavy weight.

“The infirmities of age should be resisted like the approach of disease. To this end we should use moderate and regular exercise, and merely eat and drink as much as is necessary to repair our strength, without oppressing the organs of digestion. And the intellectual faculties as well as the physical, should be carefully assisted.”

Cic.

The failure of the mental faculties is often coeval with that of the physical. This, however, ought not so to be; and it arises, not so much from an inherent tendency thereto, but results almost entirely, from careless or voluntary neglect.

Generally speaking, MEMORY is the first of the mental faculties to become impaired.

This failure of the mental powers should, if possible, be more sedulously guarded against than that of the merely physical. A person may be never so infirm in body but that, if he retains his mental faculties, he may be, not only a comfort to himself, but a blessing to those around him. The best way to ward off this mental decay, is to take a deep and lively interest in all that is going on ; to live in the present, and not in the past ; and both in reading and in conversation, to keep oneself thoroughly posted, in all matters, both of public and private interest, morally, socially and intellectually. But, this must not be done by "fits and starts ;" but it must be done regularly, constantly and persistently.

Unfortunately, however, people who are growing old, are only too apt to live in THE PAST. This is all wrong. The present and the future are all that are really worth consideration. Bygones are bygones ; and they should always be allowed to remain so. It is all very well, occasionally, to recur to the past, by way of com-

parison with the present; but to be constantly dwelling upon it, especially if it be in a hankering spirit, is not only prejudicial to the mental, but it also seriously disturbs the emotional sphere; and consequently the general health.

Above all things avoid frequent REVERIES; for if unchecked, they are only too apt at this time of life, to lapse into dotage. Keep the mind ever active; and never allow it to dwell upon the dark side of things. HOPEFULNESS and CHEERFULNESS are the strongest aids both to mental and physical longevity; and should, at all times, and under all circumstances, be most studiously and carefully encouraged.

Take especial pains to cultivate the memory; and if it has already begun to fail, lose neither time nor effort to regain its lost power. One of the very best means of accomplishing this, is to connect the subject, sought to be remembered, with something else, either as to object, person, time or place. By frequently practising this

simple method, not only can a good memory be retained, but one that is impaired may also be regained.

Always have something to do. If you have made money, or are rich, don't live a life of useless idleness. If your fortune has been made by hard mental labor, let your recreation be a life of physical activity, in which the mind can also take its part. A life of inglorious ease is ever prone to lapse into one of disease; and that often of so serious a character as to speedily end in decease.

Nature's common law is constant motion. Life itself is but a constant succession of chemical decomposition and reconstruction; of waste and repair. Every organ and tissue of the body, without exception, is subject to these metamorphoses. PERFECT HEALTH consists in an equal balance between these vital forces. Too much waste hastens vital consumption; and consequently shortens life; whereas too little waste, or too much repair, are equally prejudicial to

health, by causing PLETHORA ; and so, as it were, clogging the wheels of life ; which, if not removed, will, sooner or later, stop them altogether. Therefore, one of the main secrets, in the science and art of prolonging life, consists in the maintenance, for as long a time as possible, of this perfect equilibrium.

One of the best and surest aids in the accomplishment of this all important aim is the use of

THE TURKISH BATH.

The Turkish bath not only equalizes the circulation of the blood, but it also has an especially beneficial effect upon the organs of secretion and excretion : and although, at first sight, it might appear that, instead of equalizing the latter, it had a tendency rather to increase the waste, by reason of the profuse perspiration, which is, and should be, a prominent feature of this bath. The fact is, however, that the secretions are also stimulated ; and the perspiration which ensues, merely carries off the effete matters ; and if the bath is

properly taken, a perfect balance will be the ultimate result.

This bath, moreover, prolongs life in a variety of ways: chief among which is the elimination of diseased and poisonous matters, through the pores of the skin.

THE SKIN

is really the most important and extensive secretory organ of the body: hence it is also a most important purifier of the blood. These depurative operations of the skin, are carried on through the agency of upwards of seven millions of little pipes or pores, which open out upon its entire surface: and unless these pores are constantly kept open, not only will effete matters be reabsorbed into the general circulation, but additional work will also be imposed upon internal vital organs; especially the lungs and the kidneys: which if long continued, must of necessity end in organic disease. Mere washing with water will not suffice to keep these pores

clear : that operation, however thoroughly it may be done, only removes the dirt from the surface : sensible perspiration is also needed to effect the object desired ; and though I freely admit, that thorough perspiration can be easily produced, by many other means, than the use of the Turkish bath ; nevertheless, I maintain that there is no other method so efficient ; especially, when it is remembered that the great majority of mankind, including both sexes, and all ages, do not take sufficient exercise, or do enough work, to produce it in the ordinary way.

The Turkish bath, however, does not consist in the mere production of a profuse sweat. The subsequent operations to which the bather is submitted, not only remove all effete matters, but they put the skin into such a thoroughly free and healthy state, that it actually breathes : it absorbs *oxygen*, and gives out *carbonic acid*, as, by nature, it was intended to do : and it is just as necessary that we should exhale impurities, through the pores of the skin, as it is that we inhale pure air,

through the lungs. Many people suppose that this bath peculiarly disposes one to take cold. But a greater mistake cannot possibly be made. On the contrary, if, after having taken a bath, the bather is careful that the hair is thoroughly dry, and keeps the mouth shut, when first going into the open air, it is almost impossible to take cold; by reason of the tonic effect, produced by the bath, upon the *capillary* circulation. Moreover, it is quite unnecessary to put on either warmer or heavier clothing; a Turkish bath itself, being always equal to an extra top coat; even in the coldest weather.

This bath is equally beneficial to the wearied body, and the overtaxed brain; and is of especial value to those, who have so exhausted their nervous system, that they are unable to take sufficient physical exercise, without increasing the physical exhaustion; and also to such as lead a sedentary life within doors. It is equally applicable to the young, and to the old: it will make the young man stronger; and the old man to feel younger.

It never weakens ; but always strengthens ; unless improperly taken, or too frequently indulged in. For curative purposes, a Turkish bath may be required two or three times a week ; or even every day, in some cases. But, for the mere purposes of health, and also as a real luxury, once a week will be amply sufficient : and every body would be the better for this weekly purification.

As a remedial agent, the Turkish bath is, of itself, capable of affording much relief. It is especially beneficial in cases of rheumatism, in all its varied forms, and kindred ailments ; and also in many so called blood and skin diseases. As a general renovator, it stands unequalled ; and it is a most potent and efficient adjunct to scientific medical treatment, in every form of disease.

The Turkish bath should, if possible, be taken in all its purity and integrity, and it is well worth any one's while to come from some distance, so to obtain it. Unfortunately, however, Turkish bath houses are not, by any means, as common as they ought to be. Many, even large cities, are

entirely destitute of such luxurious and necessary adjuncts to modern civilized life.

For the benefit, therefore, of such as cannot obtain a Turkish bath in all its luxuriance, I here submit a plan which, if minutely and faithfully followed, will constitute a very efficient substitute for the genuine.

Procure a common spirit lamp, capable of holding at least half a pint of alcohol; also, a disk of very heavy sheet iron, at least twelve inches in diameter; also, four common bricks; and lastly, a cane-seated chair, sufficiently large that its legs shall pass easily over the iron disk when placed in position as directed below.

When about to take a bath, put the lamp, filled with alcohol, upon the floor. On each side of it put a brick, standing on its end, but not so close that the edges of the bricks shall touch one another, but at such distances as that they shall properly support the iron disk, which is now to be placed upon them; over all put the cane-seated chair, taking care that the lamp shall be exactly under the center of the seat thereof.

Strip yourself stark naked and sit down in the chair. Let an attendant thoroughly envelop the whole of the body, except the head, in blankets or quilts, taking care that the upper edges fit very closely about the neck, and the lower ones closely around the outside of the chair, and down to the floor, so as to prevent the ingress of any cold air from without.

When all these preliminaries are thoroughly arranged, light the lamp, and sit still until profuse perspiration ensues, which may be considerably hastened, by drinking copiously of cold water.

When ready, throw off the blankets entirely, and lie down, either upon the floor, or upon a broad board, laid upon trestles, and let the attendant thoroughly rub and knead every part of the body. When this is done, the body must be well scrubbed with soap and hot water, by means of a mitten or flesh brush; and afterwards well rinsed off with hot water; gradually lowering the temperature, until it is quite cold.

An artificial Russian bath may be taken in the same manner, by merely substituting a large pan of boiling water for the iron disk, allowing the lamp to burn, so as to keep up the heat of the water.

Any sensible person can readily see that a bath of this kind can be easily taken, entirely by one's self; without even the aid of an attendant, if such is not convenient. All that is needed, is that all the above named requirements are fulfilled; otherwise, the good effects of the bath will be diminished, just in proportion as the above details are neglected or omitted.

I need hardly add, that if there is a bath room in the house, not only would it be the most appropriate room to use, but, by a little common sense manipulation, which will readily suggest itself to any person having any gumption at all, an almost perfect Turkish bath may be easily improvised, in a well appointed bath room, properly supplied with hot and cold water.

“Few among mankind arrive at old age: and this suggests a reason why the affairs of the world are not better conducted; for age brings experience, discretion and judgment, without which no well informed government could have been established or even maintained.” These words of Cicero are just as applicable to-day, as they were when they were written, some two thousand years ago. They apply with more especial force to the affairs of this country, than to those of any other, that I know of: for, at this present time, there is, not only less respect paid to age, but it is also, to a very great extent, ignored and contemned.

In this great country, you hear very little indeed of a “grand old man,” but one’s ears are eternally pestered with the extravagant praises of half-fledged goslings, without either experience, judgment, or even common discretion; whose only merit consists in an overwhelming amount of egotistic and bombastic arrogance, effrontery and self-conceit. In many of the universities,

and schools of learning, you frequently find, that some of the so-called professors are, comparatively speaking, mere boys, whose want of age and experience alone, should disqualify them. How can such youths expect to command the reverence and respect, which should always exist between the teacher and the taught; especially when, as is so often the case here, the scholar is older than the master? The same thing obtains, in a greater or less degree, in the forum, on the bench, and in the pulpit.

This is one of the principal reasons why there is so little honesty in the affairs of state, such a lack of thoroughness in the schools, partiality on the bench, insincerity in the pulpit, and so little true religion in the church.

This want of respect is, in a great measure, due to the faulty manner in which children are brought up. Instead of the parents governing the children, the latter, as a rule, lead their parents by the nose. The same sort of thing occurs also in the schools; the teachers are not endowed

with sufficient authority; especially in correctional matters; and the same phase is not altogether lost, even in the universities and the higher schools of learning.

Such a state of affairs is altogether wrong; and has very much to do with shortening of the life, both of the young, and of the old.

The aged, instead of being, as they should be, the friends, and advisers of youth, and the mainstay and strength of the community, socially and politically, they become listless and apathetic, through the indifference and neglect usually manifested towards them. They feel that they are "laid upon the shelf;" and, as a rule, they are content to remain there; and instead of maintaining their mental faculties intact, they steadily lapse into dotage; and the physical organism, from want of exercise and care, either sinks from nervous decay, or is more suddenly cut off, by apoplexy, or some such kindred disease.

If this be the fate of the aged, what becomes of the erst-while wonderful young man? Like

any other precocious child, he is altogether too wise, to live long ; like a meteor in the sky, which for a few brief moments, burns most brilliantly, but it falls ; and in its fall, it bursts, and is utterly lost, in a shower of sparks. He is literally consumed in the fire of his own ardor ; and either dies of disappointment, or, what is far worse, he perhaps becomes reckless, and dies the dishonored death of a drunken debauchee.

Few, indeed, arrive at old age.

If, only for a few moments, any sensible person will seriously consider this matter, the utter absurdity, as well as the error of such a state of things, cannot fail to impress themselves upon his mind. That age, as a rule, impairs the physical strength is true, but that it weakens the intellect is, by no means, necessarily so.

In both ancient and modern times, we have innumerable instances recorded of those who, not only retained the full vigor of their intellectual faculties, even up to the very last moment of an unusually long life, but also of those whose great-

est works were not accomplished, and whose fame had not even began, until long after the meridian of life had been passed. Nor indeed is this to be wondered at, especially when we consider that, in many branches of science, an ordinary lifetime is barely sufficient to enable a student to become even tolerably conversant with them; others again, require half a lifetime of study and previous preparation, before even entering upon them; at least with any hope of ultimate proficiency therein.

A well spent life from infancy to manhood, and one that has been profitably used, and not abused, from that time, up to its prime will, even then, be only just upon the point of ripening; and if properly cared for and preserved, will last for many a year, before it finally dries up and dies; and if both mind and body are suitably employed, instead thereby of shortening life, it will be the very best and surest means of prolonging it; and the preservation of one really valuable life, be it never so old, is of far more

consequence to the world at large, than the sacrifice of a hundred of such as have nothing but youth to entitle them to life.

“Young men *think* that old men are fools ; but old men *know* that young men are such,” is an old saw, as wise as it is true. Infinitely better indeed would it be, if the great majority of the youth of the present day, instead of putting the old man aside, would not only cherish and support him, but would also be taught by him ; and profit by the well earned experience, which would be, not only his duty, but his pleasure to unfold to them. Each and every period of life has its appropriate uses and duties, assigned to it by nature herself ; and after having wisely distributed peculiar and proper enjoyments to all the preceding periods of life, it cannot be supposed that she would neglect the last, and leave it destitute of suitable enjoyments.

OLD AGE.

As age advances, vitality decreases. The perfect balance, which has hitherto existed between the processes of waste and repair, becomes more or less disturbed, just in proportion as the vital powers decline. Notwithstanding the fact that the above statement is true, and also that the facts implied are inevitable; nevertheless, it must not, for a moment, be supposed that those circumstances are at all disadvantageous; on the contrary, by acting strictly in accordance with a knowledge of the facts, they may even be turned to positive advantage; for at this period, as well as at every other stage of life, people may live either fast or slow, just as it pleases them. By disregarding these natural changes, life will be speedily shortened; whereas, by regarding them, it may be prolonged to an almost incredible extent.

In order, however, that this may be successfully accomplished, there must be a strict com-

pliance with certain requirements, specially called for at this time of life. I shall, therefore, briefly describe such as are indispensable.

ORDER AND REGULARITY, if never before practised, is absolutely necessary now. There must be a time set for eating and drinking, for the taking of exercise and rest, and for the performance of all the other duties of life; and such times when set, must be rigidly maintained. BODILY COMFORT AND PEACE OF MIND must also be carefully provided for.

WARMTH is especially necessary; for as the vitality decreases, the power of engendering heat is also diminished.

THE CLOTHING of the aged should always be warm; and it is better that it should consist of several garments, composed of comparatively light materials, rather than a smaller number of thicker ones; for between each garment, there will always be a layer of heated air; and consequently such clothing will be a much better protection against the outside cold.

THE HOUSE, and especially the BEDROOM, should also be warm, but not too hot. Seventy-five degrees of Fahrenheit's thermometer (75° F.) being about the right temperature; that of the bedroom should never be permitted to go below 60° or 65° F. There should also be good ventilation.

As I have elsewhere stated in this book that, not only is the health improved, but life is also prolonged, by removal from a cold to a warmer climate. This is especially true in regard to the aged. Therefore, if thought desirable, and the means will permit, much may be done to prolong life, by adopting such a course.

FOOD. It is the greatest possible mistake to starve old people. Now, more than ever, they require good and sufficient food; but it must be of such a character as is suited to their peculiar condition.

It must be plain, wholesome, nutritious and easily digested. It should also be administered in a more refined and concentrated form; the

coarser materials should either be altogether avoided, or so altered in form as to be easily acted upon by the altered animal juices. Milk, to which has been added a tablespoonful either of lime water or of a saturated solution of borax, with or without the same quantity of good old Jamaica rum, to each half a pint of milk. It may be taken cold or warm, as is most agreeable, and is best taken the first thing in the morning, and the last thing at night. Good strong and well seasoned soup, eaten with toasted bread, forms an excellent lunch for the aged; and a little tender roast beef, mutton, or fowl, with baked or mashed potatoes, and such other vegetables as do not cause flatulence, followed by some light pudding made with milk, may be taken for dinner. Pies, cakes, so-called biscuits, new bread, and all such things should be carefully avoided. Poached eggs on toast; or soft boiled fresh eggs, are also appropriate food; and so is oaten or wheaten gruel, made with water, and when served, mixed with an equal quantity of

warmed milk, to which may be added, if desired, a glass of good sound wine. A glass of good genuine beer, brewed from malt and hops alone, may also be taken at dinner time, if the person has been accustomed to its use; but if it causes a sense of heaviness or weariness, its use should be at once abandoned. Black tea and good coffee may also be used in moderation.

It is better that the aged should take five moderate, rather than three "square" meals a day, as is usual. Not only do their stomachs require plenty of rest, but they are unable to do as much work at one time, as they could when they were younger.

Although the food for the aged needs to be of a more concentrated and stimulating character, than that required by younger folk, it must, nevertheless, be distinctly understood, that made dishes and messes of all kinds, are especially unsuited to their digestive powers, and not only will do them no good, but will surely do them serious harm. The plainer their food, both in

quality and in cookery, the better it will be for them; the stimulating condiments may be subsequently added, if necessary and desirable.

“If age renders us incapable of taking an equal share in the flowing cups, and luxurious dishes of the tables of the wealthy, it thereby secures us from painful indigestions, restless nights and disordered reason,” so said Cicero, and whatever he said was usually right.

BODILY EXERCISE must not be neglected; but the greatest care must be taken to avoid exposure or fatigue. Damage in this way, may be easily done, but not so easily mended. Whenever possible, however, such exercise should always be taken in the open air; but those who have an habitual tendency to cold feet and hands, thereby showing a sluggish circulation, especially towards these parts, should remain in doors, in extremely cold weather, no matter how beautifully fine and enticing the weather may appear to be outside. But the aged cannot have too much sunlight. They should therefore, avail themselves of every

opportunity to be in it, either outside or inside of the house; always remembering the above named precautions, and taking especial care to avoid draughts of every kind.

Particular attention should also be paid to the SKIN. It should always be kept clean, soft and moist; and the very best way, not only to accomplish these, but also many other good things besides, is the weekly use of the Turkish bath. There is nothing in the world better suited to the hygienic requirements of the aged, than is this glorious bath. It matters not how weak and infirm they may be, it will always do them good, and make them stronger, both in fact and in feeling; and if regularly persisted in, may even add many years to their life. But if this luxury cannot be obtained, a warm bath, to which a little ammonia has been added, should be taken at bed-time, at least once or twice a week. The skin should be thoroughly dried, and may be afterwards sponged with alcohol, or vaseline may be well rubbed in. These opera-

tions, however, should always so be done that the person stands no chance of taking cold; at the same time, everything requires to be thoroughly done, and that without hurry or bustle.

CONSTIPATION OF THE BOWELS must also be sedulously avoided. If there is not a perfectly free, easy and natural passage from the bowels, at least once every day, the aid of medicine should be invoked; and I know of no other remedy under the sun, better adapted to fulfil these requirements, both in reference to age and condition, than FREIDRICKSHALL WATER. It is simply perfect, not only as a laxative, but also in its general good effects upon the nerves and circulation. A wineglassful of this water, added to an equal quantity of boiling water, may be taken the first thing in the morning. If this quantity is not sufficient, half a gobletful, with an equal quantity of boiling water, may be taken at the same time of day as before recommended. It is perfectly harmless; and may be left off or taken, at any time, just as it suits the needs or desires of the person using it.

In any case, straining at stool must be most carefully avoided ; as serious injury, or even sudden death, may be the result. At the same time, diarrhœa, or any other profuse evacuation, must be just as carefully guarded against ; such things having a decidedly weakening tendency, at any time, but especially so, at this particular period.

SLEEPLESSNESS must be particularly guarded against, for although, as a rule, the aged require less sleep than the young, it is imperatively necessary that they should have an ample sufficiency ; the particular amount required, varying with the mental or bodily activity of the individual in question ; the greater the activity, the larger the amount of sleep required ; and *vice versa*.

Therefore, reading late at night, exciting conversation, or even mental anxiety, or disquietude, or care ; indigestion or constipation of the bowels ; cold hands or feet, insufficiency of, or too much bed clothing ; the abuse of tea or

coffee, and all such things as annoy the body, or disturb the mind, should be carefully avoided. The use of drugs should be strictly prohibited, except in cases of absolute need; and then only for so long as actual need exists; for although they may and do produce that which resembles sleep, such a substitute can never, satisfactorily, supply the place of natural sleep. Moreover, the habitual use of drugs tends still further to enthrall the brain; and so, in time, renders natural sleep almost an impossibility; and in many other ways, they not only injure the general health, but they also shorten life. However, if sleeplessness is accompanied by coldness of the extremities, and of the surface of the body in general, including also the head, a moderate stimulant may be taken at bed-time, in the shape of a glass of "punch;" which is better if made without sugar. If the head is habitually hot, the pillow should be moderately high; but if cold, it should always be low. Sleeplessness arising from active congestion, is usually transient, and

occurs during the fore part of the night; whereas, that which proceeds from passive congestion, is more permanent, and is troublesome towards the early morning. Sleeplessness, however, arising from any cause, other than actual physical pain, can generally be overcome, by avoiding such things as I have before mentioned, and living a regular life; if such cannot be done, consult an educated and conscientious physician, and take his advice and use the remedies which he may prescribe only for so long as they are actually needed; use all your powers of will to procure natural sleep, for be well assured that drugging in any shape, inevitably shortens life.

By following the advice above given, and endeavoring to cultivate a happy, cheerful and contented frame of mind, at peace alike with God and man, life on earth may not only be spun out to its very utmost length, but it may also be most thoroughly enjoyed, even to the very last moment; and death itself may even come in such a shape, as to be scarcely distinguished from peaceful, natural sleep.

The advantages of age are inestimable, if we consider it as delivering us from the tyranny of lust and ambition, from angry and contentious passions, from inordinate and irrational desires,
* * * The satisfactions of this life are many ; but there comes a time when we have had a sufficient measure of its enjoyments, and may well depart contented with our share of the feast.
Cic.

And when that time arrives, as come it must, for each and every one of us, if we have only made the most of our advantages here, and have striven to the utmost of our power, to do our whole duty to ourselves, to our neighbors and to our God, we need not fear the day, the hour, or even the moment when the heaving chest shall cease to breathe, and the weary heart shall cease to beat.

RECAPITULATION AND CONCLUSION.

Having, at length, traced the passage of human life through all its stages, pointing out, in passing, such things as must be done, and such as must be avoided, in order to prolong life: and having discussed these various needs and requirements as fully as the limits of this eminently practical treatise will allow, all that remains for me now, is to say a few words by way of recapitulation and conclusion.

Be it remembered then, in the first place, that if an infant is healthy when born, it should be hardened and strengthened, in order that it may be the better enabled to resist disease in after life: instead of being pampered and weakened, and so rendered, not only unable to resist disease, but thereby made more susceptible thereto.

The most common errors to be avoided in this respect are, improper feeding, keeping the infant too warm, and depriving it of sufficient fresh air.

If it is not healthy, or if there be any signs, or even suspicions of hereditary predisposition to disease, the advice of an expert and experienced physician should, at once, be sought, and the diseased condition thoroughly eradicated, and the predisposition removed. If attempted now, not only can it be done, and done thoroughly, but it is a comparatively easy thing to do: but, the longer such matters are delayed, the more difficult are they of successful accomplishment. These last remarks apply with equal force to childhood, youth, and early manhood and womanhood. Constant careful watch should be kept for any signs of latent disease: and just as soon as any show themselves, steps should at once be taken for their thorough eradication. Palliation will not do. They must be extirpated, root and branch.

Almost without exception, every one of us has a WEAK POINT in his composition: and, as the old saying has it, "Everything goes to the weak spot." Therefore, it behooves every sensible

person to search for that weak spot ; and having found it, to endeavor by every possible means, to support and strengthen that point.

Among the various ways and means, whereby this weak spot may be discovered, are the following, to wit: In the event of taking cold, or of over exertion, or during the course of any disease, observe in what part or parts of the body the worst effects are experienced. Observe also in what part of the body perspiration first breaks out—showing a weakness of the nerves at that point. Observe also in what part of the body heat is most apparent—thereby evincing a determination of blood in that direction. All these parts will usually be found to be the weakest ; and if the experience, thus acquired, be frequently repeated, the fact will thereby be confirmed. Moreover, any part of the body, which is constantly overtaken, or in any way abused, will be thereby weakened, and consequently will also be a likely seat of disease. Having found these weak spots, endeavor, by every possible means, to rectify, harden and strengthen them.

In order thoroughly to accomplish this, you may have to call in a doctor. If you do, beware of that man who seeks only to remove the external signs of disease. Such treatment is but palliative, at the best: and may be the means of setting up a worse disease within. The external symptoms are but signs, which point in what direction the educated man must search, in order to ascertain their cause. The cause of the disease should alone be searched for, through the symptoms. Having found this cause, remove it, all effects must then, of necessity, cease: and a radical and permanent cure will be the desired result.

At the present day, there are altogether too many popular books, and popular means of cure. These combined have, not only done much to perpetuate disease, and injure mankind in general, but they are also prolific in shortening human life. Rudimentary anatomy, physiology, and the means whereby disease may be prevented, should be taught in the public schools;

but the treatment of disease should be relegated to the educated physician alone.

Guard against extremes and sudden changes of TEMPERATURE. Extreme heat is especially unfavorable to children. Extreme cold is most injurious to the aged. Sudden and frequent changes of temperature are always detrimental to health and predispose to disease. Dampness, at any time, is also very injurious. Heat and moisture, in the summer, and dampness and cold in the winter, are the principal causes of such diseases as are usually prevalent, during those seasons of the year.

Notwithstanding all this, however, plenty of exercise in the open air, during all seasons of the year, and in all kinds of weather, must never be neglected. It helps to harden and strengthen the body, and enables it the more easily to withstand these sudden changes, and other atmospheric vicissitudes. Besides all this, it promotes digestion, and good circulation; it stimulates the organs of secretion and excretion, and helps to maintain the balance between waste and repair.

But physical fatigue must be carefully avoided. Undue exercise of any particular organ, or set of organs, should also be, as far as possible, carefully guarded against. The principal aim should be to maintain "the balance of power," and an equality of tone, in all parts of the body; equally avoiding "HYPERSTHENIA," or too much strength; and ASTHENIA, or no strength at all; for it is quite possible, even in this respect, to have too much of a good thing; which is always no good at all.

Too much labor increases vital consumption; whereas, too little, unduly retards it. Strive, therefore, to maintain the happy mean. The mind must be exercised as well as the body; but especial care must be taken that it be not overtasked; for injuries here, are not only more easily done, but are also much more difficult to repair, than such as result from mere physical fatigue; even if such fatigue be carried to the verge of exhaustion.

Neither the mind nor the body should ever be

worked at the expense, or to the detriment of each other; or both will equally suffer. Both should be exercised alike; in which case, both will receive equal benefit.

Keep good control over the emotional sphere. Cultivate love, joy, hope, cheerfulness and contentment, for these tend to prolong life. Studiously avoid anger, anxiety, fear, grief, hate, discontentment and despair, for these invariably shorten life.

Take good care of the stomach, and avoid indigestion. Eat only such things as are wholesome and nutritious, and be careful that they are plainly, but properly cooked. Take plenty of time to eat, and never drink until you have finished eating. Eat first, and drink afterwards; and take care that the quantity of the latter, shall amount to at least three pints of liquid, taken in divided portions, in the course of the day.

“Keep the head cool, the feet warm, and the bowels open,” was the laconic advice of a very celebrated man. The advice was good when he

uttered it, it is good now, and will remain so for all time. Therefore, take heed thereof, and invariably follow the same in its entirety.

Everything should be done decently and in order, and with regularity and method withal. These things, if not carried to excess, help to improve the mind. "The rule of thumb" is a very good rule, but too much of it is no good at all.

"He that is wise will ponder these things, but a fool will not understand them." Whoever desires to live long and to see good days, will follow the advice herein given, always remembering that "wisdom alone is the source of pleasure, and folly is the cause of misery."

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