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The Decadence of the Race.

BY J. H. KELLOGG, M. D.

THAT the human race is in a state of decadence and marching rapidly toward extinction is attested by an immense number of facts which no one pretends to dispute. The only surprising thing in connection with the subject is the fact that men and women are not more surprised and alarmed in the face of this awful fact.

A study of the records of history and of the unwritten testimony afforded by a study of the remains of human beings and human arts found buried in the crust of the earth, presents indubitable evidence that many nations and places and tribes of men who have at one time flourished upon the earth and to a most remarkable degree, have, through the operation of various causes, fallen into a state of senility and decay, and by and by have been buried so deep in the accumulating rubbish of the earth that only a pyramid, a ruined temple, or a burial mound remains to testify to their existence.

The death of a nation, the extinction of a tribe, even, is a sad and ominous event, but the march of human history is strewn all along the way with catastrophes of this sort. In the United States we have had the opportunity to see again and again the extinction of an aboriginal tribe in the obsequies of the sole surviving member. A throb of sorrow went around the world some years ago when it was announced that the last survivor of the Tasmanian race had died. The present time will afford many pictures of dying races, as in the Sandwich Islands, New Zealand, and numerous other South Sea islands, to say nothing of the pitiful spectacle afforded at the various Indian agencies of the United States, where each year gathers a decreasing number to receive from the government the meager dole which the gunpowder and bullets of civilization have compelled them to accept in return for the sacrifice of their homes their hunting grounds, their independence, and their very existence.

But it is not to these small catastrophes that I desire to call attention, but rather to the greater fact that the same degenerative and destructive agencies which have, in ages past, wiped out nations and races, and which we see in operation about us at the present day, extinguishing races formerly possessed of enormous vigor, vitality, and endurance, are operating with the same certainty and potency for the destruction of not only small fragments of the human race, but of the entire race of man. It is only necessary to look at a few facts to recognize the

convincing evidence that the human race is, taken as a whole, rapidly going down to oblivion—at least the civilized part of it. The statistics of insanity show an increase of 300 per cent in the United States within the last 50 years. There has been the same increase during the same time in the proportion of idiots, imbeciles, and epileptics. At the present time the number of defectives in the United States is not less than 350,000, or one-half of one per cent. From this it is quite easy to predict that in fifty years, at the present rate of increase, imbeciles alone will constitute one per cent of the entire population. A continued increase at this rate would in the course of 265 years render insanity, imbecility, and idiocy universal among the people of the United States. Other degenerates are increasing at an equally rapid rate. This is shown not only by the statistics themselves, but by the increase of crime. In the year 1887 there were 10,000 murders in the United States alone, nearly double the number, in proportion to the population, committed in India, a half-civilized country. This proves that the more civilized we become the more unhealthy and the more criminal, and that there is unquestionably a distinct relationship between criminality and physical decadence. The increase of immorality in our large cities and smaller towns as well, is something frightful. Many evidences of moral as well as physical decay might be brought forward. A study of the statistics of England and other countries shows the same state of things to be taking place elsewhere as in the United States. The average length of life which has, within the last half century, been somewhat improved by means of increased knowledge of disease and improved methods of quarantine, only results in the keeping alive of a vast multitude of feeble individuals who, by their intermarriage with the healthy, graft upon the race their shattered constitutions, their feeble nerves, their various morbid tendencies, from which arise the innumerable predispositions to disease recognized at the present day by medical men, such as the neurotic temperament, the rheumatic, the obese, the consumptive constitution, the gouty, the apoplectic, the epileptic, the insane, and the inebriate.

Oliver Wendell Holmes said, "Every man is an omnibus, in which rides all his ancestors." The average man, in fact, has wrapped up in his constitution such a tangle of morbid predispositions that it is a matter of no small wonderment that there can be found a single specimen of the civilized human race possessed of any considerable degree of hardihood or vigor. That such individuals are found is only an evidence that the race is wonderfully enduring and hard to kill. There can scarcely be found an animal race, possibly excepting the reptiles, which could endure the abuse to which the human race has for centuries been subjected, and still survive. The man who undertakes to develop a fancy breed of horses, dogs, or even chickens, takes almost infinite care not only of their diet, but of their housing, cleanliness, sanitation, and all that pertains to the physical welfare of the particular race of animals concerned. The Arabs of the desert, who make their horses members of their families, and treat them with almost the love and affection given their children, have produced the finest race of horses on earth, animals which are not only hardy and enduring to a most extraordinary degree, but equally superior in tractability, amiability, and intelligence.

In the old Spartan days, Lycurgus, by the same means, produced an extraordinary fine race of men. But while civilization has achieved marvelous things in science, literature, and art, invention, dis-

covery, and social and material improvement in various directions, it has certainly failed to improve man as an animal. The civilized man is to-day far inferior, as an animal, to the average savage. His body is deformed, he is round-shouldered, flat-chested, spindle-shanked, and diminished in stature. The French people, once the gigantic Gaul who carried terror into Rome, are now the smallest people of Continental Europe. The savage pays little attention to sun, rain, or snow; he is independent of wind or weather, his skin is "all face," as said an intelligent North American Indian, when the cold December snow was blowing around his bare shoulders and legs. He sleeps and dreams the dreams of childhood, he wakens in the morning with muscles stored full of energy such as only the professional athlete possesses among civilized men.

All savages are athletes. If all civilized men were athletes a long category of maladies which are undermining the constitution of the race would disappear. The average savage has such a resistance to disease causes that he can live in the swamps, jungles and the pestilential wildernesses where the white man inevitably succumbs in a few weeks or months.

At The Hague Peace Conference, the fact was brought out by the British representative that explosive bullets are needed in warfare with savages, because they have such marvelous vitality that a wound from an ordinary bullet, such as would completely disable or kill a civilized man, is almost unnoticed by them. An English officer told the story of having put five bullets through the body of a savage at short range, but the forest man kept rushing on until he reached and killed an officer who was the object of his attack, then fell dead. Any one of the five bullets which he received would have been sufficient to stop the career of an ordinary civilized man.

The fact of the matter is that human attention has been so much directed toward improvement in social directions, education, amassing wealth, the devising of labor-saving machinery, etc., and in a thousand other directions, that the man himself, the animal man, has been overlooked. At the same time the use of tobacco, alcohol, tea, and coffee and various other unhygienic practises in diet, such as the use of flesh foods, condiments, etc., sexual immorality—these and other agencies have combined to sap the vitality of the race, and bring it to its present condition, which, rightly appreciated, ought to arrest the attention and sympathy and earnest thought of all intelligent people.

The fact that race extinction does not stare us in the face as a thing likely to occur within the next generation or perhaps even in the next half century, ought not to induce us to view the situation with complacency, and leave to those who come after us the task of raising up a wall of defense against this tidal wave of destruction which is rolling in upon us. We ought, on the other hand, to begin to enquire earnestly for the cause and the remedies of this unhappy state of things.

We might epitomize the causes by saying that they are to be found simply and wholly in the departure from the divine order by being established by the Creator for man, the cultivation of habits detrimental to health, physical, mental, and moral, the use of the body as an instrument of pleasure instead of looking upon it as the temple of God, His image, placed in the earth as His representative, to be a witness of divine wisdom, power, and goodness.

The remedy is to be found in the command of the old prophet, "Cease to do evil, and learn to do well."

The race is dying, no mistake. Too much civilization is killing it. A recent writer chose as the title of a somewhat sensational work, "The Cause and Cure

of Civilization." Whatever may be said about the causes of civilization, the human race is certainly sick with this perverted and abnormal condition which we call civilization, and which we fondly imagine is a state of highest human happiness and well-being. Our conceptions of what constitutes happiness are largely perverted. Many things we call good are really evil, and things that are truly sweet and precious we call mawkish and undesirable. Sacred things we make common, and common and vulgar things we worship and make obeisance to.

With our eyes blindfolded to truth and our ears stopped against warning, we are rushing madly down the hillside of race decay, while all the time persuading ourselves that we are daily climbing taller pinnacles of greatness and overlooking higher mountaintops of wisdom. It is time that we should sit ourselves down soberly to think over the situation and to find out, to use a common expression, "where we are at." The race is at sea, tossed on a stormy ocean in an unseaworthy bark, and being rapidly drawn into the vortex of a great maelstrom of disease, and unless speedy rescue arrives, will surely be sucked down into the fathomless depths of oblivion.

The writer earnestly urges the reader to give thoughtful attention to this subject, unattractive though it may be. It is only by means of individual reform and returning to the ways of God and nature that the threatened catastrophe can be averted.

Acute Rheumatism.

BY DAVID PAULSON, M. D.

THE best treatment for inflammatory rheumatism is: First, take a breakfast of hot water, then a dinner of the same. The next day take again a breakfast and dinner of hot water, adding, perhaps, a little fruit. Inflammatory rheumatism is generally located in the elbows, the knee-joints, or the ankles. Wrap the patient in hot blankets so that he will perspire, especially around those joints in which the rheumatism is located. The patient should keep drinking plenty of water. At night moisten some cotton in a little cold water and wrap it around those same joints. Wrap a good deal of cotton around the same, then muslin, then a newspaper (oil-cloth is better), and then add more cotton so that the joints will perspire all night long; in a few days the rheumatism will be cured. A dose of salicylic acid sometimes seems to do good in these cases, because it helps to eliminate the accumulated uric acid. The best way to cure acute articular rheumatism is not to have it. People are not likely to get that disease unless they are taking into their system a poisonous diet, such as meat, tea, coffee, etc., and at the same time failing to take sufficient exercise.

Dr. Haig, of London, an eminent physician and medical authority, who has been working on this subject for fifteen years, has demonstrated that rheumatism is produced by poisons contained in an unwholesome diet and lack of exercise, and so the bestway to cure it is not to have it.

Hygiene.*

BY H. S. MAXSON, M. D.

TO cure is the voice of the past; to prevent, the divine whisper of to-day. To translate this whisper and proclaim its meaning is the work of the greatest benefactors of mankind.

In the British Museum, in antique relief, sits Hygea. In her hand, extended, she holds an apple, which is being licked by a venomous serpent. The daughter of Æsculapius, beautiful with the glow of health, unharmed by the touch of death, sits a fit emblem of hygiene.

We may not escape the deadly germ, which is omnipresent except on the sea and the highest mountain. The air we breathe is loaded with them; the purest water is not free from them. Destroying agents are on every hand. We can not escape them, but we can nullify their work. We can make the bulwarks of our defense impregnable. This is the work of hygiene. The principle of life is stronger than the agents of death. We have but to relate ourselves to the laws of nature, and we are safe.

My audience to-day is composed largely of women, thinking women, whose very presence here bespeaks their interest in the advancement of their sex, and the betterment of mankind. I shall be pardoned, I am sure, if, under the circumstances, I seem to lay upon the broad, strong shoulders of women the burden of the latter. It is not that I would ignore the responsibility of our brothers, but that I would emphasize our own the more; and, indeed, my sisters, the heavier responsibility does rest upon us, for we have the first and the best part. Into our hands is given, in very large measure, the making of individuals, and, hence, the making of society. The task is indeed great, and we labor against terrible odds, but, however heavy this may be, the balance of power is with us. We may not make the laws which control our water supply or insure us that our milk is uncontaminated, or provide for the purity of the atmosphere we breathe; but we may do much to mitigate the evils from these sources. We may not make the laws which shall clear from the pathway of our boys the temptations of the saloon; but we may so regulate their habits of eating and drinking that they will not only not crave stimulants, but shall, in fact, repel them. In short, in whatever direction we look over the vast extent of this far-reaching, all-important subject, if we follow up the beginning of every evil, in nearly every case we shall find it rooted beside the cradle.

All the wisdom of replete motherhood —where shall it be found? Who shall compass it? Wherewithal may we be clothed upon with it? May God breathe upon the desire which is taking hold of mothers' hearts to reach out after more knowledge, and grant that it may speedily take possession of these young hearts upon whom the destiny of the future depends.

The influence of years of heredity is, in a measure, beyond our control. Many, perhaps most of us here, have already intelligently, ignorantly, or wilfully cast our lot. For ourselves, we may forget the past; except to remember that our first and great inheritance is of Him in whose image man was first formed; except to remember that according to the divine mandate the inheritance of good is thou-

*Paper read before a meeting of the Sorosis Club of San Francisco.

sands of times stronger than the inheritance of evil. The sins of the fathers are visited but to the third and fourth generation, while their blessings are continued to thousands of generations.

But there is a class of people, a strong throbbing multitude, to whom this subject of heredity is of very great interest, and that is the young and unmarried. Listen to me, mothers of young men and young women, of boys and girls who will soon be young men and young women, and contemplate your responsibility. You may train your children to an appreciation of the soul-worth of their associates. You may exalt before them beauty of character as compared with beauty of face, and grace of heart over the grace of manner. You may train them to love the adornment of the meek and quiet spirit before the putting on of apparel. It is easy to cause them to reverence their bodies if they are taught concerning their structure. These bodies are fearfully and wonderfully made. They are to be fit temples for the indwelling of the Holy Spirit; and when your boy, as a man, seeks a helpmeet for himself, he will look upon the winsome smile, the graceful manner and the becoming dress, and the delicate transparency of invalidism, and they will have no attractions for him. He will look for that which has been his ideal from infancy. He will look for one who will be capable of giving to his offspring healthy bodies as well as noble souls.

Your daughter, grown to womanhood, pure and beautiful, will keep her heart-strings intelligently coiled within her own breast until she knows that her suitor is also pure. His gallantry will not cause her to forget the weighty responsibility which even now rests upon her in her potential motherhood. She will halt until she knows that the family of the father of her future children has a clean bill of health and a clear moral record.

When this has been done, dear mothers, we shall have given a mighty impetus to the ball now set rolling which will go on expanding and filling the whole earth with love and brightness. The family circle once closed by the strong band of connubial love, we can hope for physical splendor and moral strength, only when love's divinely appointed fruition is held in hopeful, loving expectancy, only when the husband and the wife shall live for their offspring during that blissful though oftentimes painful period when almost all power is given unto them, abstaining from that which shall dwarf and blight, and giving full measure to that which shall beautify and strengthen.

If we begin aright, with a knowledge of the human structure, all its various relationship, all knowledge how it is organized as to muscle, joint, nerve, tissue, brain, so that all work together for good or evil—if we bring our intelligence to bear not only upon prenatal conditions in order that the children may be well born, who, from the moment of their coming into life, look to proper feeding, nourishment, and development, we can insure beyond a question of doubt, vital, splendid boyhood and girlhood.

But between this and the majority is the pathway, broad and straight and plain, and beset above, below, and on every hand with pitfalls and hidden snares set to rob manhood and womanhood of their glory. I refer to the period of adolescence, to that time when a great strain is put upon the organism because of rapid physical development, and too often the greater strain of forced mental development. At this age, also, when the goad of a false ambition is held over the youth, the appetite is naturally changeable and fickle, but little attention is paid to the matter of proper nourishment. A hasty breakfast is eaten—perhaps none at all—or worse, a cup of coffee is taken, and the

child is hurried off to school with a cold luncheon, or, perhaps instead, a dime; which too often is spent for sweetmeats. If a hearty meal is eaten at all, it is done at night, when the system, overwrought by the exercises of the day, is poorly prepared for it. Disturbed digestion, unrefreshing sleep, will be sure to follow. No really good material is given to the rapidly-developing tissues, consequently they must be unsound in texture, ready to break at the least provocation.

The natural lassitude of this age must be recognized as physiological, and, while habits of promptness and thrift must not be sacrificed, too much activity, either physical or mental, will be required at the expense of health and vigor later on. Remember that sleep is tired nature's sweet restorer, and she needs lots and lots of it. This is a critical period. Do not make the mistake of thinking that your child, just merging into maturity, needs no more rest than you; but let it be taken in the fore part of the night, when one hour is worth two later on; and let him be out to utilize the ozone of the morning in exercise. Above all things, do not let your boy or girl tread this dangerous way without understanding. Walk close beside them, mothers, in love and knowledge. Be sure that they understand the strange sensations which stir within them, and impart that information yourself. Do not delegate this precious task to one less interested than yourself, who loves less than yourself. It requires great wisdom and tact indeed to guide these dear ones safely on this wonderful journey into splendid manhood and womanhood. How grand the work! How far-reaching in influence! and yet, mothers, this task is given to us!

I think it is Shirley Dare who said, "The day will come when illness will be considered a discredit to those involved." Disease is crime. It is but the just recompense for broken law. But in and by the law of being is life.

Probably there is no one physiological law more universally ignored than that which provides for the proper nourishment of the body. Sir Henry Thompson, a noted English physician and authority upon dietetics, says: "I have come to the conclusion that more than half the diseases which embitter the middle and latter part of life are due to fatal errors in diet."

Froebel, whose closeness to child life gave him an insight where others could not see, said: "The child's food is a matter of great importance, for the child may by its effect be made indolent or active, sluggish or mobile, sad or bright, weak or vigorous."

You will recognize the fact which I have before hinted at that the tree is inclined as the twig is bent.

Professor Fonssagrieves, of Paris, says: "The number of causes of diseases which can be arrested in children by instituting a preventive diet is almost incredible."

It is not possible that any true mother would set before her child anything, however much he might desire it, which she knew would tend to develop or bring about a condition of disease, or that she would knowingly feed her darling in such a way as to weaken his power of endurance to the invasion of disease. It is impossible that a loving wife should set before her husband that which she knew could not sustain him in his struggle to provide for herself and his little ones, or that would irritate his nerves, making him impatient or fault-finding with those most dear to him. She would not give him as food that which would inflame his passion or create a tormenting desire for stimulants, something to supply the place of the real substantial nourishment which he misses though he does not know it. No loving wife or mother would do this

understandingly. Ah, what woe is there to the home and to society because of the wide-spread ignorance upon this subject! What need of education! The need is recognized, and people are beginning to attend cooking schools; but alas, most of these, even, study to please the palate rather than to create strong muscle and steady nerve.

Yet, scientific cooking is not a thing unknown at the present time. By this I mean the study of the nutritive elements of food and their proportion in relation to the chemical constituents of the body and its needs. There is no one thing so sorely needed in the world at the present time as the education of women for life work which awaits by far the larger part of her kind, a life work than which none is more noble.

A young lady who has taken her degree from the University of California, one acknowledged to be most brilliant, even noted for the diversity of her information, when asked for some book of reference on advanced hygiene, replied that she knew absolutely nothing concerning the subject. How long may this be the testimony of our college graduates?

For no work in the world is so little preparation given as to the one of motherhood, and there is none so filled with solemn responsibilities. The mother has not to paint a picture on canvas, nor yet to chisel a statue from marble, but she has the making of a form in the image of Jehovah, not in silent colors nor in cold, dead marble, but in living, throbbing tissue—the making of a life for weal or woe, for time or for eternity. Shall she have less preparation for her work?

It should be impressed upon the mind of every young person that health, like financial capital, must be loaned if possessed; likewise it remains with the possessor as a reserve in his credit; it should be guarded with the same care that a banker guards his principal—overdrafts beyond legitimate living or running expenses will surely impair the principal, and if this be continued, the health must inevitably become bankrupt in direct proportion to the amount of overdrafts made upon it.

(*To be continued.*)

Nerve Prostration.

BY A. J. SANDERSON, M. D.

THROUGHOUT the world the Americans are spoken of as being a people of nervous temperament. There is far too much truth in the observation. Each year we find more and more sufferers from neurasthenia, nervous exhaustion and nervous prostration. Physicians meet these cases oftener than any others. Probably no other condition will so affect the welfare of our nation as this growing tendency among its people.

The majority of invalids, or at least many of those to whom life has no real pleasure, are sick, not because there is any disease located in the system, but because the vital forces behind the body mechanism are lowered or lost; consequently some or all of the functions are unable to work, or at best do their work very imperfectly. Many local diseases of the various organs originate because of the lack of nerve tone, which should have sustained the part with self-preserving activity.

Minor defects of the body, such as an eye with a slight error in refraction, an imperfect heart or weak digestive organs, come to the stage of medical treatment because the vital force supplied to them is not sufficient to compensate for their weakness. There is no individual so perfect but what he inherits some defects, but fortunately most of them are compatible with strong life, provided there is a sound and well-balanced nervous system to direct the body.

The nervous system is the most delicate and highly-organized part of the body. The gray matter situated in the large brain within the skull, and the small masses throughout the body, represent the origin of every impulse which brings into activity every organ and every voluntary movement of life. The white matter coming from these cells is so extensive that there is not a cell in any tissue within the body that is not touched by one of its fibers. Sever this connection between any tissue and its nerve center, and that part becomes lifeless. Not only the power to act, but the nature of the action that takes place in any part of the body, depends upon the nervous system. When this life force is natural, there is no limit to the education and power of the body. When its vitality is lowered, the whole system becomes helpless, or suffers the consequences of its morbid directing.

In the nervous system are located all the habits of life. Whatever has been done so repeatedly that the influences of repetition become stamped on the nerve centers, becomes a habit of the nervous system. These nerve habits are the imperial rulers of our life, to which our bodily functions and voluntary activities are mere servants or slaves. Right habits, regulating useful and righteous activities, are the promise of soundness and long life; while wrong habits, when formed, pronounce the sentence of early degeneration and decay.

The molecular activities which operate in the working and thinking of the nerve centers are very minute. We cannot watch their changes; although it has been demonstrated upon animals that the nerve centers after exhaustive labor become shrunken and impoverished, so that they can only be restored by proper nutrition and rest.

The compensating influence in the activities of the nervous system does not lie within itself. There is not sufficient

motion to excite the circulation sufficiently to restore and repair. This can only be done by a corresponding activity of the muscular system; hence work that requires severe nerve labor without a proportionate amount of muscular work, will not maintain a healthy condition of the nerves.

Exhaustion of the nerves, as well as that of any part of the body, can only come either where there is too great wear of the tissue, where there is failure to repair through rest and nourishment, or where the tissue is poisoned by intoxicants within the circulation. The wear upon the nervous system of the average American individual is beyond the ordinary power of endurance. It is not so much what the individual does as it is the nerve habits by which the work of life is performed. The sharp competition, the race for the first place, artificial habits and false education bring with them a tension and a restless state of the inner man which does not allow of natural living.

It is not the possession of a normal passion or a normal appetite, or of money or influence, or reputation, that tempts to overstrain and abuse, but it is the love of getting these things which intoxicates the life-seeker and sends him over rough ways for something that he cares but little for when he gets. The indulgence of a normal passion or appetite soon leads to the formation of nerve habits, which demand that the physical body serve "with rigor" along a self-destructive road. The man who loves his liquor or his tobacco holds his system a slave to gratify the desire. The individual who loves food merely for the pleasure of eating enslaves the digestive organs to hard work, in place of their being the free servants which minister nourishment to the body.

The scriptural injunction that "the love of money is the root of all evil" is an explanation of thousands of cases of nerve prostration, where money-seeking has carried the individual into strains of business which engulf life and allow no rest or repair. The love of getting material things of every kind for the mere purpose of accumulation, is a permanent destroying factor of our American people.

Aside from the causes mentioned above, the nervous system suffers from impoverished nutrition, or more often from irritating influences of poisons circulating in the blood. These poisons may develop in various ways, but most frequently come from intestinal absorption, as the result of poor food or the different forms of fermentation that takes place in the alimentary canal.

It is a significant fact that the Americans have as large a reputation for being a race of dyspeptics as of being one of neurasthenics. Modern pathology discovers that many diseases are due to toxic substances in the blood.

The cause of any class of disease being understood, the remedy is indicated. Life habits must be changed, regardless of what the conditions of society demand. Bad diet must be corrected, without yielding to a perverted taste. To expect to cure in any other way can mean but final failure.

FRUITS are among the most beautiful products of nature, satisfying the esthetic taste as well as the palate. The purest water is contained in them. Their sugar is abundant and harmless, their acids cooling, refreshing, and corrective of many untoward conditions of the body, and they have been used to counteract the alcoholic habit. The demand for fruit to-day is not only much greater, but a much superior quality is required than thirty years ago.—*Selected.*

Eye Strain.

BY G. H. HEALD, M. D.

IT is surprising how few eyes are normal, that is, so adjusted that light from distant objects is focused on the back of the eye, making a distinct image without the assistance of the muscles of accommodation. Out of four thousand eyes examined by one authority, only fifty-one, or about one and one-third per cent, were found to be normal. More than one-half were astigmatic. More than three-fourths were far-sighted. About one-sixth were near-sighted. Many of the eyes had astigmatism combined with far or near sight.

In many of these cases the individual probably had no suspicion that his eyes were not perfect; for with good accommodation, many far-sighted persons, especially when the error is of low degree, and when the eyes are not called upon to do too much near work, can use the eyes with comfort. Such individuals come to the oculist, saying, perhaps, that they have always had splendid eyesight, being able to distinguish objects, which could not be discerned by their fellows, but that following an attack of measles or some other disease, or after some misuse of the eyes, it was noticed that close work would be followed by distressing symptoms, such as headache, pain below the eyeballs, watering of the eyes, a sensation of sand in the eyes, blurring, etc.

Near-sighted persons are also often unaware that there is a defect in their eyes. One can not recognize, say, an individual at fifty yards; at one hundred yards, perhaps, can not tell whether it is a man or a woman; can not read a large sign-board across the street, etc., but he thinks everybody is the same way, and so goes on in blissful ignorance of his condition. Such a person will possibly have remarkable vision for minute objects, held close to the eye, and hence consider his eyesight perfect. Those having any considerable degree of astigmatism, or a marked degree of far or near sight, are more apt to know it.

When the muscles of the eye are called upon to make excessive efforts in order to produce distinct vision, the result is eye strain. This may be constant when there is a high degree of far sight present; or only during close work in cases with far sight of a lower degree; or only after an excessive amount of close work in cases more nearly normal. When the muscles of accommodation are failing through age, symptoms of eye strain may accompany close work.

All these conditions call for a correction by appropriate lenses; but the reader is warned against the purchase of spectacles from some traveling vender, or out of some cheap store. Spectacles vary in price from less than $1.00 a dozen, up to many times that price. There is a difference in the quality of the lenses as well as the frames. The manufacturers in making lenses turn out many of inferior quality. These are sold as such to the dealers, and are used by them to supply to cheap stores and pedlers.

People who, for economy's sake, buy these cheap lenses may find it very expensive in the end; for it may result in permanent damage to the eyesight.

Traveling men often make extravagant assertions with such a show of confidence that people who are uninformed are frequently misled by them. One has been known to go to a person having a fairly good-fitting pair of glasses, tell him they

were ruining his eyesight, give him a cheaper pair of glasses, and charge him a good price for the exchange.

It is sometimes said that people want to be duped, and are glad to pay a high price for the privilege. I do not think this is strictly so; but there is a tendency to place confidence in men who make extravagant claims, so long as the pretender puts on a bold face and has the appearance of believing what he says.

We trust, however, that should any of our readers need glasses, they will place no reliance whatever on a traveling "oculist," no matter how plausible his story; but go to some reliable person who knows something about the physiology of the eye and the laws of refraction.

In cases where the eyes, apparently normal, suddenly become "weak," the cause is often some old refractive error which throws an abnormal strain upon the muscles of accommodation; the effect not being apparent as long as the general nervous force is good. But let the individual pass through some experience which exhausts his reserve nervous power, then anything which causes a nervous disturbance will be the "last straw that breaks the camel's back." So sometimes efforts of the muscles of the eye to compensate for a wrong shape of the eyeball, which in health might give rise to no inconvenience, in the condition following a large expenditure of nervous force may give rise to most annoying symptoms. One might say, "Restore the nervous force, and the symptoms will disappear." Very good; but it will be found almost impossible to restore the nervous force under such conditions.

A squeaky door, which to any one else might not be noticeable, will drive a person distracted who is suffering from nervous exhaustion; and the doctor will probably say that the patient can not get any better until that squeak is stopped. So the eye strain—comparatively insignificant in the well person—may be the one thing necessary to remove in some cases, before recovery can be expected. In some cases, even a very weak pair of glasses will relieve alarming symptoms. It is needless to say that in such cases a misfit may only increase the symptoms.

In all cases of unexplained headache, neuralgia, dizziness, loss of appetite, nausea, vomiting, epilepsy, etc., the patient should consult a good oculist to determine whether there is any connection between the eye and the other disturbance.

Question Box.*

BY A. J. SANDERSON, M. D.

128. WHAT is meant by auto-intoxication?

It is a condition where the system is poisoned by substances developed either within the tissues or from some organ of the body. The process of tissue change going on continuously always develops substances which, when present to a large per cent in the body, become poisonous. It is the work of the eliminative organs to so take out this material from the blood that the system never suffers from it. The peculiar nature of the poison itself is a stimulus to the eliminative process; but when through sedentary habits or other conditions that do not allow of a good circulation, these poisons accumulate, they become a cause of disease. When a disease attacks any organ of the body and there is a pathological process going on, it often results in the development of poisons which affect the system. This is especially true of the alimentary canal when indigestion and fermentation is present. It is well understood that a great many of the diseases arise from auto-intoxication, which comes from these various sources; more often from toxines absorbed from the intestinal canal.

129. Why does exercise of the lower limbs cause more loss of breath than that of the arms?

Exercise of the lower extremities requires more muscular exertion on account of having to carry the weight of the body. Hence, it more quickly uses up the oxygen in the system and calls for deeper breathing. Exercises of the arm only require a limited muscular exertion, and at the same time such movements have a tendency to expand the chest, as they call into action some of the respiratory muscles; in this way the inhalation of oxygen is facilitated, and consequently there is not usually so much shortness of breath.

130. Is bodily exercise recreative for the brain?

True recreation is that experience by which tissue repair takes place with the greatest facility, and lost energies are the most rapidly restored. These conditions are secured to the greatest advantage when such exercise and change is taken by the system as will allow the worn part of the body to have complete rest while other parts of the system are taking such exercise as will keep up a good circulation and tissue oxidation. Those whose occupation is largely mental, would do far more and better work should the periods of activity be interrupted by seasons of well-directed muscular exertion.

131. Can a full bath be taken every day with advantage?

Frequent bathing is an advantage when the bath has a tonic action upon the system. A full bath in warm water every day would relax and weaken an individual; so would any bath where the body was immersed in the water any considerable length of time. However, a daily sponge bath, or cool shower, or a plunge in salt water, will act as an invigorant that will greatly aid in keeping up a good resistant power in the system, as well as being a daily tonic that will increase the vital activities.

132. What should be done in a case of prussic acid poisoning?

This drug is one of the most powerful poisons which we have. It, together with

*Questions answered in the evening parlor lecture at the Sanitarium.

nicotine, is said to destroy life quicker than any other drug. It is strange how differently the public view these poisons. We are mortally afraid of prussic acid, while the vast majority of people are keeping their systems poisoned with nicotine almost constantly through the common use of tobacco. A half grain of prussic acid will sometimes destroy life. It kills very quickly by paralyzing the action of the heart or respiration. If any amount of poison has been taken, there may not be time to use any measures for relief. Where anything can be done, one should have the person inhale ammonia; take a few drops into the stomach, and if necessary, inject some into the tissues. This, with a cold douche applied to the spine, and the practise of artificial respiration to keep up the action of the respiratory muscles, are the best things that can be done for the patient.

133. Is heat the cause or effect of muscular movement?

It is the effect. Muscular activity excites tissue change, which produces heat. Severe muscular exertion causes a person to perspire freely. Increased activity of the skin is nature's way of getting rid of the surplus amount of heat. The evaporation taking place upon the surface of the body absorbs heat, which counteracts the increased amount of heat production. Thus, if a person perspires, he can take a greater amount of exercise with impunity. The dryer the atmosphere favoring the evaporation of perspiration, the less danger there will be of overexertion in hot weather.

134. What is the best hour in the day for a nap?

A sick person that requires rest during the day should secure it at the time when all the functions of the body can suspend their work to the best advantage.

An hour shortly before dinner is probably the best time for this purpose, as it secures rest in the middle of the day and at a time when the digestive organs are the freest to take part in the general relaxation.

135. What are the best combinations of food?

Those which are the most simple, and which when mixed on the outside of the body and kept in a warm place will not have a deleterious influence upon each other. If our meals were made up of not more than four varieties of food, there would be a great reduction in the amount of indigestion from which people suffer. Fruits and grains go well together; also eggs and grains, and grains and vegetables, and eggs and vegetables. Good bread stuffs will combine with any class of food. Combinations to be avoided are fruits and vegetables, especially when the latter contain much raw starch; acid fruit and milk should never be taken together. If there is the least tendency to fermentation one should avoid all pastries and sweet foods, together with sugars. A great many adults will find it an advantage to avoid the use of milk, as it is often a cause of biliousness. Fresh yeast bread also greatly facilitates fermentation in the stomach wherever it exists.

136. Is drinking ice water with meals injurious?

It is best for most people not to drink any amount of liquid with meals; and especially is it injurious to take any quantity of ice-cold drinks. The coldness of the fluid brings about a depression upon the glands of the stomach at a time when their work is most necessary, and consequently their energy, which should be used in secreting good gastric fluid, is utilized in counteracting theinfluence of the cold liquid. Excessive use of ice water in the warm season of the year is one of the common factors in the production of

dyspepsia, for which the American people are noted.

137. Why is it impossible to smile when one is practising very hard exercise?

Because most people dislike hard work, and when they are required to place their physical powers upon a strain you will notice them often wearing very unpleasant features. The individual who is accustomed to hard work, and whose system is invigorated and strengthened by its beneficial action upon the healthy tissues, will not only wear pleasant features when he is doing the hardest work, but will often be seen to smile when he is doing things that require severe strain. It is said that John L. Sullivan often wore a smile upon his face during some of his severe fights. If people would enjoy their good hard work the same as he does his execution of brutal force, doubtless they would smile and work at the same time.

138. Should physiology be taught to children?

For a child to know himself so that he may reverence and value his own life and physical development, is the most valuable information that can be imparted to him. As a child becomes acquainted with his own powers and internal resources, and sees the way in which they can be successfully developed, he has a great advantage in life over the individual who knows nothing of himself, and whose conditions are such that he is constantly doing those things that are contrary to his highest development.

Physiology should be taught in that practical way that will lead to healthful use of all the voluntary powers, as well as to correct habits. There is danger, however, in teaching physiology, lest there should be a tendency to fix the attention of the child upon himself, and cultivate a consciousness of those organs of the body which are designed to work without sensible recognition.

139. What is the best way to treat a bee sting?

There is no specific remedy that will counteract the poison. Linseed oil applied freely over the part will help to reduce the pain and swelling; so will also an emulsion of sweet oil and lime water, or a soda paste.

140. Are mushrooms a healthful food?

These are recognized by physiologists as being a food that will supply material that is needful to the body, but the life habits and growth of this plant are such as to render it an unwholesome food from a sanitary point of view. Foods that contain the best nutrition and energy are those which are developed under the influence of abundant light and sunshine. The damp, moldy places where mushrooms grow are utterly unfavorable for the development of a wholesome article of food.

141. Why is it sometimes difficult for one muscle to act independent of another?

This is partly because the groups of muscles are so closely associated together by nerve relationship, and partly because of a lack in the education and training in the independent use of the various muscles.

The use that one has of the muscular system is dependent upon the education the person has had. The various muscles in a group can all be trained to act independently, as can also different parts of the same muscle. In some of the large muscles of the hip, different sections of the same muscles produce entirely different motions. The hand that is carefully trained to any work of art can readily use its muscles independently for the fine and varied movements. The hand untrained has the same resources, but they are undeveloped. The earlier in life that the muscular system is trained to do the greatest variety of work and movement, the easier will be the process of development.

Dietetic Treatment of Gastric Disorders.

BY G. H. HEALD, M. D.

(Continued.)

THE first disease we shall consider is

HYPERCHLORHYDRIA.

Manifested by discomfort after eating, and later by some fluid coming up into the throat and mouth, and perhaps heartburn and even severe pain, which all disappears when the stomach empties itself. The symptoms are temporarily relieved by nitrogenous food, as meat, cheese, milk, etc., or by the use of alkalies such as bicarbonate of soda. But while these neutralize the acid and so afford temporary relief, they, at least the meat and the alkalies, stimulate the stomach to still further secretion of acid, and so perpetuate the evil. As a rule the appetite in this disease is good. The disease has a tendency sooner or later to end in ulcer or in catarrh of the stomach; and it may be easily confounded with either of these diseases.

Meats, as heretofore stated, have a high combin i r g power, and hence afford temporary relief, but more permanent relief will be obtained by the use of a cheese prepared by separating through cloth fresh milk which has been curdled by means of rennet. Ordinary cottage cheese has a certain combining power, but on account of its acidity, is not so valuable as the rennet cheese. Milk is valuable when the condition present does not forbid the use of liquids. The legumes,—peas, beans, and lentils,—gluten foods and eggs also have a high combining power for hydrochloric acid. The grains, as a rule, have a high combining power, but are objectional on account of the large amount of starch they contain; for the excessive acidity of the stomach prevents the digestive action of the saliva, and the patients of this class almost always have difficulty in digesting starch, and should consequently use the dextrinized foods, zwieback, granola, and granose.

Potatoes and other starchy vegetables should be avoided, as should also the coarse vegetables, on account of their irritant action on the stomach walls tending to increase the gastric secretion. Acid and acid fruits, as tomatoes, lemons, rhubarb, apricots, oranges, etc., are, as a rule, badly borne; but a moderate amount of mild fruit, as pears, prunes, etc., are unobjectionable.

Sweets may be used in moderate quantity, in those cases where there is not an excessive secretion of fluid in the stomach, for sweets tend to increase the amount of fluid in the stomach without increasing its acidity. It is hardly necessary to add that condiments, tea, coffee, and alcoholic drinks must be discarded, as they all have an irritant action on the too sensitive secretory glands.

HYPOCHLORHYDRIA.

A disease characterized by diminished secretion and poor quality of the gastric juice, without any structural change in the secreting surface of the stomach.

This condition, not so frequent as the one just described, may or may not be accompanied by diarrhœa. Mental depression, the "blues," is quite frequently present, the patient feeling unfitted for the ordinary duties of life; the appetite is often quite poor, but as the starches are usually well digested, the weight is more apt to be kept up in this condition than

in the condition of hypersecretion just described. Meats, eggs, legumes, cheese, and all highly nitrogenous foods should be discarded. Starchy foods, as the cereals, potatoes, if finely divided, are usually well tolerated. Mashed potato is, as a rule, fully as well tolerated in this condition as baked potato, whereas in hypersecretion, baked potato, on account of part of the starch being dextrinized, is more acceptable.

The green vegetables and most fruits can be freely used, care being taken that all food enters the stomach in a condition of fine division.

GASTRIC NEURASTHENIA

Is a disease marked by irritability and weakness of the nerves that supply the stomach. It is simply a form of neurasthenia in which the local manifestations are most prominent in the stomach, being manifested by distressing symptoms, but without any accompanying disorders in digestion. The nutrition may be perfect, all the functions of digestion being performed in a normal manner, except that they are accompanied by more or less constant discomfort; and this discomfort may not be confined to the region of the stomach, but may show itself in distant parts of the body.

One peculiarity which distinguishes gastric neurasthenia and other stomach diseases is the fact that in these diseases there is no constant relation between the quantity and nature of the foods eaten and the distress that follows. Sometimes a very small meal may be followed by intense gastric distress and again the reverse may be the case.

Some of the principal causes of this disorder are worry, overstudy, sexual abuse, unsatisfied sexual excitement—in fact any cause which will produce a lowering of the nervous force.

In the milder cases, the patient is to all appearances in excellent health, and he gets little sympathy for his numerous complaints as to his distress after meals; but in the more severe cases there may be marked falling off in appetite, weight, and strength, with constant loss of sleep. Morbid fears, a lack of ability to concentrate the mind, anxiety for the future, are among the most prominent mental symptoms. Among other symptoms not directly related to the stomach, may be mentioned rapid and irregular heart, cold hands and feet, hot flashes, these being manifested much more at one period than at another but prominent, if at all, during the stage of digestion.

These patients often become overanxious regarding their diet, and watch carefully the effect of various foods. Becoming convinced that their distress is the result of certain foods, they discard one article after another until finally they may be on a starvation diet.

The disease is very obstinate, and from its nature, one in which the patient is utterly incapable of prescribing or doing for himself; and the very effort to do this may by the process of introspection result disastrously. The patient should be under the care of some competent physician, and one, if possible, in whom the patient has the utmost confidence. He must be relieved of all worry, and must have mental and physical rest; he should have a change of scene and all hygienic measures, as fresh air, sunlight, appropriate baths, massage, a carefully regulated diet, and all these should be under the supervision of a physician who will conscientiously give attention to all the minute details—for no two cases can be treated exactly alike.

A bland and unstimulating diet is, as a rule, well borne—green vegetables and ripe, mild fruits, not too sweet nor too acid and not too coarse in texture, are often well tolerated and are excellent to relieve the inactivity of the bowels.

Acids, salads, sweets, pastries, condiments, and stimulants must be severely let alone, for their use will surely result in harm.

When the discomfort and distress is relieved one can have confidence that the diet is in the right line; and can feel assured that a sufficient quantity is being taken if the patient maintains his weight.

But diet alone is not sufficient to cure gastric neurasthenia. A cure in an aggravated case will require all the skill and patience of a conscientious physician, together with the full co-operation of the patient.

(To be continued.)

Beauty and Art in Dress.

BY MRS. ADELAIDE A. MORAN.

SO much time and thought are spent in arranging what is called artistic dress, and in writing and talking about it, that it would hardly seem necessary for more to be said on the subject. But the effect this dress may have upon the body is usually overlooked. Art is defined as "the skilful and sympathetic arrangement or adaptation of means for the attainment of some desired end." Primarily, dress is a covering of the human body for protection. The natural, well-developed human body is more beautiful, and therefore more worthy of consideration from the standpoint of beauty, than anything that can be placed upon it. To preserve this beauty is to preserve health. Every organ has its legitimate place and its own work to perform. A method of dress which in any way disarranges or restricts these parts of the body fails to be truly artistic.

The Chinese, in binding the feet and putting on the little shoe, think they improve upon the original and produce something more beautiful. But an examination of the unsightly deformity reveals a perverted idea of what real art in foot covering should be. It is easy for Americans to see that the Chinese make a mistake, but it is not so easy for Americans to see that they make a more fatal mistake in wearing the corset. Why is the unnaturally small waist any more beautiful than the unnaturally small foot? Are not the results worse where the vital organs of the body are crowded out of place than where an extreme member, which might be amputated without loss of life or health, is bound out of shape? The sense of the beautiful and the artistic in dress needs to be cultivated by most civilized women. It is only because a small waist is thought to be pretty that any one tolerates it. In reality it is no more beautiful than any other deformity.

The fashion makers, who are supposed to have very artistic ideas, have not been satisfied with the natural form to arrange their draperies upon, but, by torturous devices have changed the beautiful curves to angles with protuberances here and there. We remember visiting the art palace at the Columbian Exposition and there admiring the fine statuary exhibited. Later, a visit was made to see the display of gowns made by the famous Parisian. The contrast between the two was painful. The figure that could wear the dress of fashion was very different from the sculptor's ideal. The artist who would choose for his model the form of a

modern society woman would achieve no success. We have no more perfect standard for beauty than the Greek statues. Imagine what they would be had they worn a corset. It does not take an artist to see that the natural form is beautiful, and that nothing but convention and much adornment with stuffs and trimmings can make the most uncultured look at the vitiated form without pity. If every woman would study beauty and not fashion it would take but a short time for her to discard the corset. It is just as easy to dress the natural form beautifully and artistically as the conventional one, but it may require more original thinking on the part of the wearer.

A few practical suggestions from the pen of another may be helpful to the many women who must think for themselves on this subject: "Long lines from the shoulder to the foot give height; horizontal lines crossing the figure shorten the person. Short, stout women should avoid basques or any dress that makes a descriptive line about the hips, ruffles at the shoulders or hips that increase the bulk, waists or skirts of too great tightness where loose draperies would give slenderness to the figure from not defining too clearly the lines. There should never be a bone in any dress. It is impossible for a dress ever to take so completely the form of the figure with bones as without. The bones wear out the dress and confine the movement."

To these suggestions we would add that all garments should be suspended so that the burden of weight rests upon the shoulders. No dress can be considered acceptable that is not of such proportions as to preserve the rounded contour of the body. It should not hinder ease and grace of movement. Constriction of any part hinders the natural functions of that part, and the health is endangered. When the body has been deformed by improper dress it should be given freedom and trained back into the original form as nearly as possible. Learn how to stand and take such exercises daily as will develop roundness of the figure and correct poise. Any draperies hang ungracefully upon a relaxed, misshapen figure. Remember, the greatest beauty is attained only in perfect health.

WORRY.

THE word "worry" is not of a classical origin. It is not a Latin or a Greek word, but probably Saxon or old English. It originally meant to seize by the throat and strangle, as when a dog seizes a sheep or a rat. The dog worries these animals to death. The name "wolf" was given to the creature that bears that name, because it always worries its prey, torments it, tires it out. *Warga*, the old name of wolf, meant a strangler, or one who worried its prey to death. The cat worries the mouse. Anything that worries produces unpleasant emotions, and these prevent the healthy action of body and brain.—*Selected.*

DUTY.

OUR blue-eyed daughter, with locks of gold,
Rosy and dimpled and eight years old,
Went to Sabbath-school one fine day,
When grass was springing in balmy May.
The questions swiftly went round the class,
And soon came the turn of our little lass.
"Your duty to neighbors?" the teacher said.

Promptly replied our golden-head,
"I don't know that kind of duty, you see,
But I know plain duty as well as can be."
His hand on her curls the teacher laid;
"Well, what is 'plain duty,' my little maid?"
"Why, duty's the thing"—with a moment's thought—
"That you don't want to do, but you know you ought!"

—*Amelia Barr, in St. Nicholas.*

Day's Menu for a Large Family.

BREAKFAST.

Cantaloupe

Granose Flakes Rolled Oats

Cream Toast

Poached Eggs on Toasted Granose Cakes

Cream Rolls

Graham Puffs Whole Wheat Bread

Caramel Cereal Coffee with Cream

Apple Sauce

DINNER.

Lima Bean Tapioca Soup

Baked Potatoes with Brown Flour Gravy

Baked Navy Beans

Green Corn Lettuce with Lemon

Sally Lunn Gems

Graham Bread Toasted Wafers

Watermelon Stewed Pears

Cup Custard

RECIPES.

POACHED EGGS ON TOASTED GRANOSE CAKES.—Split the granose cakes in half, toast them carefully, place on a warm platter. After poaching the eggs, drop them very carefully on the toasted granose cakes, and serve.

CREAM ROLLS.—To one-half cup of cold cream add one-half cup of soft ice water. Make into a dough with three cups of flour, sprinkling in slowly with the hands, beating at the same time, so as to incorporate as much air as possible, until the dough is too stiff to be stirred; then knead thoroughly, form into rolls, and bake.

GRAHAM PUFFS.—Beat together vigorously until full of air bubbles one pint of unskimmed milk, the yolk of one egg, and one pint and three or four tablespoonfuls of graham flour, added a little at a time. When the mixture is light and foamy throughout, stir in lightly and evenly the white of the egg, beaten to a stiff froth; turn into heated irons, and bake in a rather quick oven. Instead of all graham, one-third white flour may be used if preferred.

LIMA BEAN TAPIOCA SOUP.—Simmer one pint lima beans in sufficient water to cook them very tender (let them fall to pieces); when done rub through a colander. Add rich milk, or cream, or water, whichever preferred, to make of the proper consistency. Salt to taste, reheat to boiling, and add a little flour thickening, then run through Chinese soup strainer. Cook three tablespoonfuls of pearl tapioca until clear, and add to the soup.

SALLY LUNN GEMS.—Beat together the yolk of one egg, two tablespoonfuls of sugar, and one cupful of thin, ice-cold sweet cream. Add slowly, beating at the same time, one cup and two tablespoonfuls of sifted graham flour. Beat vigorously until full of air bubbles, add the white of the egg beaten stiff, and bake in heated irons.

CUP CUSTARD.—Into four cups of milk stir the yolks of three eggs and one whole one well beaten. Add four tablespoonfuls of sugar, and strain the mixture into cups; place these in a dripping-pan full of hot water, grate a little lemon rind over the top of each, and bake in a moderate oven. If preferred, the milk may be first flavored with coconut. It is also better to have the milk nearly hot when stirring in the egg. Half a cupful of the milk should be reserved to add to the egg before turning into the heated portion.

Editorial.

RELATION OF SANITARIUMS TO THE PUBLIC.

THE only good reason for the existence of a public institution, or one that is run in the interests of the public, is a need among the people that can not be otherwise supplied. The success of an institution depends upon its ability to meet this need; and its continuance is only assured by the fulfilment of its mission. A sanitarium must give to the public something in the healing art that can not be gotten from various other sources, or it has no excuse for being.

The practise of medicine to-day in its different phases gives many resources for the treatment of disease; and with the aid of modern science to diagnose, the various remedies can be applied with such accuracy that epidemic diseases are readily quarantined and individual cases are easily treated effectually; but with the ordinary individual who is ill, it is not merely the disease that needs to be combated, but the person needs such supportive and invigorative measures as will restore the conditions which existed previous to the illness, the loss of vitality, which was a prime factor in allowing the disease to make inroads upon the system. For the tissues and energies of the body to be recreated, much more is needed than can be gotten from the ordinary methods used in the practise of medicine.

Disease seldom comes by accident, and the individual who is habitually subject to any infirmity, is not so afflicted except for some specific cause. There most often is a weakness in some part of the body, as an overwrought nervous system, poor digestion, wasted muscles, undeveloped chest, or the weakness of some other function. Home environment may be responsible for this, or unwholesome diet, sedentary life, too close confinement to business, or other individual habits which one has conscientiously or unconscientiously acquired. These conditions are not rectified by medical treatment, but must be restored through various hygienic measures, together with training and development of the body.

For a sanitarium to fill this unsupplied need, it must be equipped, not only with every facility for the effectual treatment of disease, but it must provide such measures as will meet the requirements for the physical and mental rest, culture, and development the patient may need. The environment must be free from such phases of life as have been the cause of the individual lost vitality and the change must supply compensating occupation for body and mind. The usual strain, home worry, or business care must give place to wholesome freedom and recreation.

The surroundings of open nature in its least cultivated form is the best adapted to assist in natural relaxation and living, as well as in securing the best sanitary advantages. Any sanitarium in a country place has many advantages over one located in a city.

Doctor Barnes, in his excellent comment on surgical nursing, says that the "most perfect form of hospital from a sanitary point of view, would consist of a fine, dry table land or a very gently sloping hillside, while the ward fittings may consist of a hammock, chair, umbrella, and a movable screen."

The percentage of diseases that are referable to mal-nutrition suggests the importance of diet as a factor in regaining health. With the English-speaking

people, overeating, hasty eating, excessive meat diet, and poorly-prepared foods lie at the foundation of much physical suffering.

Not only to correct the defect and remove the cause, but to reestablish natural appetite and digestive vigor with wholesome and well-prepared food, is a work which only an institution can provide that gives special attention to dietetic principles. Often the most difficult part of the work is to reeducate the tastes and also to teach the individual how to prepare or obtain that which will be adequate and adapted to maintain good digestion and nutrition.

Provisions for the physical training and development of the body are measures which need to be universally applied to the chronic invalid. A group of muscles or a function is weak because poorly or unsymmetrically developed. A deformed chest, or a spine abnormally curved, becomes not only a physical weakness, but an essential element in the incurability of disease. If this is to be corrected, there is need for special physical development, either by properly-directed exercise, or, if necessary, by the use of such passive measures as will correct the deformity. For this work a sanitarium equipment is necessary. The business of sanitarium life is that of health culture and development.

FEVERS AND DIGESTIVE DISTURBANCES.

THE increased frequency of malarial as well as other kinds of fevers in the late summer months, suggests that there must be some reason why the infection that causes these diseases enters the system more easily at this time of year than at other seasons. It is of course referable to the continued heat, but this factor alone is not sufficient cause. There is no more reason why the heat of September should affect the system more unfavorably than that of April. It is rather the effect of the heat upon our surroundings, and especially the food and water supply. To maintain vigorous digestion throughout the year is the best, and perhaps the only, safeguard against the inroads of the infective fevers. Intestinal antisepsis is now a prominent feature in the treatment of disease, but it would be far better if intestinal asepsis were the rule of preserving health. A healthy stomach will destroy disease germs when an unclean stomach will nurse and culture them. In fact, poisons allied to that of malarial fever may be generated in the stomach so that they will give rise to symptoms very similar to true malaria. The principal source of danger of these digestive troubles, or the fevers that are allowed to enter the system because of them, is either the food that has undergone fermentive changes, or water that has become infected. For the latter, boiling is the only safeguard; for the other, exercise and care as to food is necessary. The stale cooked foods that will not keep as in cooler months, the vegetables that have not been properly ripened in the field, or have undergone some form of decay after being taken from the field, the overripe fruit, and the use of preserved and spoiled meats, are dangerous. These things should be as scrupulously avoided as we would shun the deadly disease germs themselves.

As a means of preserving health, nothing can take the place of a clean stomach. When fermentation exists, no medicine or other treatment can perfectly counteract its influences. The old settlers in malarial districts used to take whisky to ward off malaria, and it possibly may have killed the germs in the stomach in some cases, but if it did it was at the expense of the quality of digestion and nutrition. The physicians who have attended the soldiers at Manila, testify that those who are the most free from the use of stimulants are the least apt to contract malaria, and recover from it the quickest.

MEN willingly believe what they wish. —*Cæsar.*

VIRTUE when it is concealed is worthless.—*Claudian.*

ALL wish to know, but none the price will pay.—*Juvenal.*

IT is not allowable, even in jest, to injure a friend.—*Publius.*

A WELL-BALANCED mind is the best remedy against affliction.—*Plautus.*

PATIENCE renders more tolerable evils to which we can apply no remedy.—*Horace.*

A LAUGH is too dearly bought when purchased at the expense of virtue—*Quintillian.*

HE alone will deserve the character of a man, who suffers not his spirit to be elated by the favorable gales of fortune, nor to be broken by its adverse blasts.—*Livy.*

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THE present issue of the JOURNAL is to go into ten thousand homes. This is by far the largest number that has ever been published in any one month. The interest that has been taken in its circulation assures the rapid growth of its work. More letters of appreciation have been received of late than ever before. As a means of introducing it into the homes of those unacquainted with its merits, we are offering for the remainder of this year, a subscription of three months for ten cents. Coupons are being sent to our readers, and when returned with addresses, with ten cents in stamps, they will insure the JOURNAL being sent for three months.

HELPING HAND MISSION.

THE Helping Hand and Medical Mission, 641 to 647 Commercial Street, San Francisco, has become a member of the growing family of the California Medical Missionary and Benevolent Association. The papers of adoption were executed on July 20. The Mission was established early in the year 1898, and from the very day of its dedication has filled a long-felt need in providing relief for the unfortunate and destitute men that have found refuge within its doors. Food, shelter, laundry privileges, medical attendance, and clothing are freely bestowed upon the worthy poor. A free clinic, under the care of kind and skilful physicians, is conducted at a certain hour each day, while a trained nurse from the St. Helena Sanitarium is in constant attendance to minister to those in need of his services.

For several months past a free employment agency has been conducted in connection with the Mission, by means of which a large number of deserving men have been provided with permanent positions. And not only are the temporal needs of the individual looked after, but provision is also made for the spiritual wants of those who come within its influence. Upon the walls of every room various texts of Scripture have been painted, so that the last object that strikes the eye of the beholder at night, and the first upon awakening in the morning, is some portion of the Word of God. "I am the bread of life," "Blessed are they which do hunger and thirst after righteousness, for they shall be filled," are some of the inscriptions that meet the eye as he takes his place in the dining-room. Thus each room has its appropriate message of comfort and encouragement. An abundance of religious literature is also supplied, and each evening throughout the year Gospel services are held in the chapel, which is also used as a reading room and office. Many a man who had been led to believe that life had lost its charms, has been restored, through the influence here exerted, to a place of usefulness in the community, and reunited with the family from which long years of separation have intervened since he went out perhaps fondly hoping in a few weeks or months at most to prepare a home for them. Continual failure, which has been the lot of many a man, may so dishearten what otherwise would have been the kind husband and the loving father, that in his despair he severs every tie which binds him to the sweet dream

of the past, and plunges down into the depths of wretchedness which welcomes the oblivion of the grave. This institution and its work is such as should commend itself to every friend of suffering humanity.

The directors of the California Medical Missionary and Benevolent Association have appointed the following individuals as a local board to have the immediate supervision of the work: J. A. Dolson, manager; E. E. Parlin, secretary and treasurer; and Dr. R. A. Buchanan. Any of these would be glad to give further information with regard to the work and needs of the Mission. All donations of provisions should be sent prepaid to the Helping Hand and Medical Mission, 641 Commercial Street, San Francisco, Cal. Cash donations should be sent to the secretary and treasurer, E. E. Parlin, 1436 Market Street, San Francisco.

DURING the month of August Mrs. Moran, Miss M. E. Burns, and Mrs. H. L. Spencer, Sanitarium workers, conducted a School of Health in the Exposition Building, at Oakland, Cal. The subjects taught were Hygienic Cookery, Healthful Dress, Physiculture and General and Personal Hygiene. Dr. A. J. Sanderson, of the St. Helena Sanitarium, gave a lecture on the "Diet of Man, Where and How He Gets it." Dr. F. B. Moran, of San Francisco, occupied an hour speaking of the "Physiology of Digestion." All of the instruction was made as simple and practical as possible, reaching into the home life and habits, with the purpose of correcting some harmful practises and of introducing helpful ideas into every-day experiences.

DURING the past two months, the San Francisco branch of the St. Helena Sanitarium has had a season of unusual prosperity. The growth of this new institution has been exceptional. More than twenty workers are now regularly employed. Arrangements have been completed for the erection of a fine six-story, fire-proof building, 50x90 feet, to be ready for occupancy by January 1, 1900. With the completion of the new building this will be one of the best-equipped medical institutions on the Pacific Coast.

THE San Francisco Vegetarian Restaurant, at 1422 Market Street, is well patronized by the many who desire a simple and healthful diet. The menus are carefully arranged and give an abundant variety of food. All of the food elements necessary to the perfect nourishment of the tissues of the body are found in grains, fruits, nuts, and vegetables. This is well attested by many eminent chemists. The idea is not a new one, for the original bill of fare given to man did not call for flesh food. Many of the people of the Orient do not know the taste of flesh, and yet they are strong, vigorous, and active; neither are their intellects dull, when their meager advantages for culture are considered. The powers of endurance which a vegetarian diet gives are shown in the New York and San Francisco seven-days bicycle races, also in the German seventy-mile walking match, in which the winners were all vegetarians.

WE rust and decay in proportion as we allow the machinery of the body to remain idle.

OUR lives belong to others than ourselves, and we do others wrong in our neglect of health.

HOPE is the banner of health; progressive people live well; when hope dies, the grave yawns.

BOOK NOTICE.

"THE RELATION OF FOOD TO HEALTH AND PREMATURE DEATH," by Geo. H. Townsend, LL. B., Witt Publishing Co., St. Louis.

We take pleasure in recommending to the public this little work, which discusses in a simple but thorough manner the various foods and their value. There are chapters which treat on Dietetic Errors and Dietary Composition of Foods, Idiosyncrasies, Feeding the Sick and Diet in Acute Diseases, Causes of Indigestion, Diseases of the Stomach, and a host of other diseases.

This notice is not written in return for a free sample copy; for we have paid for the copy we have, and call attention to the book solely for its merits.

Mr. Townsend certainly gives evidence of much close thought and good sense in what he writes, and his book is worthy of careful study.

We may have occasion to quote from the book from time to time. I will quote some statements here regarding the value of the nut foods:—

"The Sanitas Food Co., of Battle Creek, Mich., are making nut foods that are as much easier digested, compared with raw nuts, as granose or granola, compared with unground and uncooked wheat. Nuts have long been known as rich food, but owing to their solid texture, and the natural inclination to swallow them in uncrushed particles, they have, for many people, been considered rather indigestible. The Sanitas Food Co. have overcome this difficulty and given the world the most delicious and fattening foods ever manufactured. They answer every purpose of meat, and greatly strengthen the cause of vegetarianism."

"Heretofore cream has held first place among common fats, but the nut-cream and nut-butter, made by Sanitas Food Co., are superior to either cream, butter, or animal fats."

"All animals are subject to disease—cows especially to tuberculosis—besides, cows are frequently kept in foul places, milked by soiled hands, and the milk kept in unsanitary places and in vessels washed in water containing typhoid or other bacteria. These dangers are avoided in the nut foods, but there are still stronger reasons for their use. The particles of fat are so minutely subdivided or emulsified that they are readily taken up in the system. The animal fats will not sustain life, as they contain practically nothing but heat-producing elements. The nut foods will sustain life and more quickly fatten than anything yet discovered. Nut-butter and almond-butter are the most delicious and appetizing fats ever produced, and they will very likely displace cod liver oil as a fat-producing food for consumptives."

In answer to the query: "Why not combine nuts with grain foods?" the author says: "The Sanitas Food Co. has done so with great success. Long ago I was impressed with the belief that emulsified nuts could be combined with dextrinized or pre-digested starch, so as to make the richest and best food for fattening yet discovered. The Sanitas Food Co. has made such a food, and named it bromose. As a fat-producer and food tonic, bromose has produced most remarkable results. Nuttose is another similar food, and might aptly be called vegetable meat. Granose and bromose, used together, have restored many invalids to vigorous health. Knowledge of these foods are of so much benefit that I have spoken of them at some length."

This book can be obtained directly from the publishers, or from the Sanitarium, St. Helena, Cal. Price, $1.50.

Sanitarium Health Foods.

CEREAL FOODS.

REFORMERS frequently spread themselves over pages, telling what *not* to eat, until the reader turns away in dismay, inquiring: "What is there left that I *can* eat?" The writer, in this article, will attempt to enlighten the reader in regard to some articles of food which justly deserve more than a passing notice, as may be learned from the testimonials of many persons who credit their restoration to health to the use of these foods.

It is generally recognized that in a large percentage of digestive disorders the difficulty is with starch digestion. In order to meet this class of cases, foods have been prepared which have the following characteristics:—

1. The starch is partly digested.

2. The food is of such a nature that thorough mastication is required, so that the food is well mixed with saliva, and the digestion of the starch further facilitated.

3. The food, being friable, enters the stomach, not in a pasty mass, impermeable to the gastric juice, as is frequently the case with porridges, but crumblesup n the mouth into a powdery mass, readily permeated by the stomach fluid.

4. No shortening of any kind is present, avoiding the heartburn and other troubles which sometimes result from the formation of fatty acids by the splitting up of the fats which have been overheated in cooking.

5. The foods are crisp, palatable, delicate, and delicious, affording that natural stimulus to healthy digestion—a keen relish of the food eaten.

These foods are the result of more than twenty years of careful investigation of existing foods, and of experimentation on new foods on a scale probably never exceeded. The sieve "prove all things; hold fast to that which is good," had very large meshes, and as a result the foods that have been retained as being valuable alike for the sick and the well are comparatively few.

First among these may be mentioned GRANOSE, which is, perhaps, the best for general use. As has been known for years, wheat contains all the elements of nutrition needed for the human body, and in nearly the proper proportions. Granose, being wheat, thoroughly cooked and partially digested, agrees with everybody, and it is rare that it is not eaten with relish. It is thoroughly cooked and recooked by processes that first ensure the bursting of all the starch granules, and afterward turn the starch quite largely into dextrin. Anyone can, by means of the iodine test, find that after masticating a small amount of granose for a few seconds, the *starch has all disappeared*, showing that the digestion of granose proceeds rapidly even in the mouth. It can be used in numberless ways, in soups, with milk or cream, or in combination with fruit or eggs, or can be used alone in the dry state; and this is a most excellent way to eat it, especially at the beginning of a meal, in order to encourage the flow of saliva.

GRANOLA, a product which has been favorably known for many years, is a mixture of choice cereals so combined as to furnish the nutritive elements to the system in proper proportion, and occurs in the form of a coarse powder, which, upon the addition of milk, cream, or fruit juice, swells and makes a soft, pulpy mass much preferable to mush. Granola requires no cooking, as it is thoroughly cooked in the process of manufacture, and, like granose, the starch is partly

turned to dextrin. It makes a most delicious pie crust, which at the same time is perfectly hygienic. While well received by all, it is of especial value in those cases where it is necessary that the food be disintegrated before entering the stomach.

Avenola is a food similar to granola, but made from oatmeal.

Zwieback, the only form in which raised bread should be eaten, is, as the name indicates, twice baked. The bread, which *must* be good in order to make a good quality of zwieback, after it has stood for a few days, is cut into even slices and baked in a rather slow oven. It differs from toast in that it is cooked through instead of simply on the outside. Ordinary toast, while it is thoroughly cooked on the outside, is rendered more doughy on the inside, and hence is far from hygienic. Zwieback is crisp, has a delicious nutty flavor, and has all the yeast plant killed, so that it is not likely to set up acetic acid fermentation in the stomach as is the case with raised bread. The starch is largely digested by the cooking process, thus rendering digestion easier. In the dry state it is an excellent food to eat with softer foods, in order to encourage mastication. In the preparation of cream or fruit toasts it is far superior to the ordinary toast.

Zwieback can be made at home by the housewife, and with care a good article can be there made, but, as a rule, the home-made article is apt to be inferior to that manufactured at the Sanitarium.

Sticks and rolls, while not strictly health foods, because they contain a certain amount of butter for shortening, are far superior to the crackers ordinarily placed upon the market. They have a large sale on account of their fine flavor and crispness. The sticks are smaller in diameter than the rolls, being about the size of one's little finger, while the rolls are similar in size to the big finger. Both sticks and rolls are made from graham flour and from whole wheat flour, and can be obtained in one and two-pound cartons. The whole wheat sticks and rolls are preferred for general use, but any one suffering from constipation should use those made from graham flour.

A number of crackers are also made from wheat and oatmeal, some being shortened, others shortened and sweetened, while still others have neither shortening nor sweetening. For general use these foods are perhaps inferior to those mentioned above, but still they have their place and are superior to the ordinary crackers on the market.

Special attention should be called to the gluten cracker, gluten biscuit and gluten meal. These foods are highly nitrogenous, have a comparatively small percentage of starch present, and are excellent foods for diabetes, and for those who are much troubled with starch indigestion.

For those of vigorous digestion who desire a fruit cracker, those made by the Sanitarium will be found to be superior to those ordinarily found on the market.

Another preparation which has had a large sale is caramel cereal. While we do not advocate the use of fluids with meals, we have found those who, on giving up the use of tea or coffee, are not prepared to give up entirely the use of some drink with their meals. It was to meet this class of people that caramel cereal was put on the market. While others have since put similar products on the market with the extravagant claim that they make red blood, etc., we claim no food value for caramel cereal. Of course there is a slight nutritive value to the grains used in its preparation, but when made up into a beverage this is so small that it can be left out of the question. All we claim for the drink is that it is an agreeable substitute for tea and

coffee, and that in so far as it replaces them, it is a benefit. In itself it is as harmless as any beverage would be at meal time.

As to the nutritive value of the foregoing foods, the granose, granola, zwieback, and plain crackers contain the nitrogenous and carbonaceous elements in about the right proportions. The sticks and rolls and the crackers containing shortening and sweetening have a slight excess of carbonaceous matter, while the gluten preparations are especially rich in nitrogenous matter.

G. H. HEALD, M. D.

NUT FOODS.

By those who desire to leave off animal foods, such as eggs, milk and flesh meats, there has been a long-felt want for some food which will supply an abundance of nitrogenous matter in easily digestible form. While the grains contain a proper proportion of nitrogen, fruits and vegetables are deficient on this point. The legumes (peas, beans and lentils) contain an excess of nitrogen, and could be used to advantage with the starchy vegetables, such as potatoes, sweet potatoes, etc., but they are somewhat difficult of digestion, especially so for people of sedentary habits, and hence any foods which would supply nitrogen in an easily digestible form are of great value to the vegetarian. Such foods we have in nuts; but it is often the case that nuts eaten in the raw state, and perhaps not well masticated, are not well borne by the stomach. When thoroughly cooked and well disintegrated, the nut foods are, as a rule, far more digestible. For this reason a series of foods have been prepared, after much experimentation and outlay, which have the following characteristics:—

1. They furnish nitrogen in an excellent form.

2. They supply an abundance of oil, partially emulsified, so that it is more readily handled by the digestive system.

3. They contain a comparatively small amount of starch, and hence are an excellent food in cases of starch indigestion.

4. They are relished by most people.

5. They are cheap, as compared with meat and other animal products. A pound of nut food contains much more nitrogenous matter than a pound of meat; besides a lot of carbonaceous material. One can readily see that persons eating flesh would do well to take up the nut foods from an economic standpoint.

6. They contain none of the poisonous substances which are so common in meat, and are not so likely to become decomposed as meat.

7. They furnish a large amount of nutrition in small compass, and hence are excellent for travelers. They can be conveniently carried without danger of contaminating other articles of food, or damaging clothing. They are always ready for use, being thoroughly cooked. As the sealed goods are sterilized in the process of manufacture, they will keep fresh indefinitely.

The first of these foods put on the market was nut butter, and it has had such a remarkable success that it is now manufactured all over the country, in a small way, by families and by small manufacturers. It is proving a boon to many people, but on account of the temperature at which it is produced, a change takes place in the oil, rendering the fat more or less indigestible to certain individuals; so in a certain proportion of cases it is found to disagree. Notwithstanding this, it is probably used on account of its cheapness to a greater extent than any of the other nut foods.

Nuttose, made at Battle Creek, nucose and nutlet, made at St. Helena, are foods put up in sealed cans, and have a growing

popularity. These foods are excellent sliced, or can be made up into stews with potatoes or various other vegetables. In fact, there are many ways in which, by the aid of these foods, appetizing and healthful dishes can be prepared. The manufacturers furnish recipes on application. There is a little work, recently issued by Mrs. Dr. Leadsworth, entitled "The Natural Food of Man and How to Prepare It," which will be mailed, post free, from the Sanitarium on receipt of 15 cents for the paper edition, and 25 cents for the cloth edition. This little work, gotten up by a practical cook, contains many excellent thoughts regarding the preparation of nut foods and other foods.

Some persons have to learn to like the nut foods at first, but this is not surprising, for people usually like the foods that they have been brought up on and do not take kindly to strange foods. If, for instance, we should go to Russia, or China, or the South Sea islands, we, perhaps, would not like the dishes prepared by the natives of these countries, even though they might be healthful; and we would, as likely as not, fail to relish the natural products of the country, such as fruits. I recently met a lady from the Hawaiian Islands, who could not relish any of the California fruits, excepting the oranges, to which, of course, she was accustomed in her native island. But taste is a matter of cultivation, and for those who at first do not appreciate the taste of the nut foods, a taste can be readily acquired, should they find that the foods agree with them and give them more comfort than some of the foods they have been accustomed to eating. As a rule, however, people like nut foods from the first, and find them to agree.

There is another series of foods, in which nuts are combined with pre-digested starch in the form of malt sugar. These foods, bromose, malted nuts, etc., are very delicate and toothsome; and occasionally we find a case where patients who can eat nothing else thrive on these. They are wonderful foods to lay on fat with. These foods may be said to be almost pure nutrition, and the starch part being already digested and the nut food thoroughly cooked, they are an excellent food for cases of weak digestion. They should take the place of the oil which has been obtained by trying out rotten cod livers, in the treatment of wasting diseases; and where they are so used they will be found to have a very beneficial effect.