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PALAIS DE JUSTICE AND PONT AU CHANGE, PARIS.

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ARE WE A DYING RACE?[1]

BY J. H. KELLOGG, M. D.

(Continued.)

"AND there were giants in those days." That the human race is degenerating in stature as well as in longevity may be clearly inferred from analogy, since the study of the fossil remains of both animals and plants shows that the earth was once peopled by gigantic beasts,— mammals, birds, and reptiles,— compared with which the animals living at the present time are mere pigmies. The mammoth redwoods of California are almost the only living representatives of the magnificent forest monarchs which once sheltered mammoths, mastodons, megatheriums, and their prodigious neighbors, but which are now buried in the measureless coal-fields of this and other countries.

The same causes which have been in operation to diminish the size of other animals have likewise affected man; in fact, the dwarfing influences to which the latter has been exposed are tenfold more numerous and potent than those which have operated upon the lower animals. Putting aside the fabulous accounts of giants twenty or thirty feet high, which are doubtless based upon the bones of extinct animals, we find authentic records of measurements of many men more than eight feet in height who lived during the two or three centuries prior to the present. In 1555 three brothers, surnamed Og, Gog, and Magog, who were each over eight feet in height, guarded the Tower of London. The Duke of Hanover had in his court in the seventeenth century, a yoeman who measured eight feet six inches in height. The famous commentator, Dr. Adam Clarke, measured a man who was eight feet six inches tall. O'Brien, the Irish giant, whose skeleton stands in the museum in the Royal College of Surgery in London, measured eight feet four inches in height. It is not probable that there could be collected at the present time from the whole world such a company of men as Frederick the Great's regiment, one of whom, the Scotch giant, measured eight feet three inches. Men who are at the present time exhibited as giants, although said to measure eight feet, are rarely found to be more than seven and a half feet, and very frequently less. Great statures are not usually found at the present time to co-exist with great longevity, but rather the reverse. The vigor of the race seems to have deteriorated to such a degree as to render impossible the co-existence of these two marked evidences of extraordinary vitality.

[1] Paper read at the Civic Philanthropic Conference, Battle Creek, Mich., Oct. 12–17, 1897.

We are developing various defective varieties of the human race; by keeping our blind and deaf and dumb in asylums by themselves they are led to intermarry, and so their defects are propagated by heredity. The great number of men, women, and children confined in counting-rooms, stores, factories, and at various sedentary employments is developing a deformed creature which might be termed "the sedentary man," who is known by his round shoulders, his flat, hollow, feeble chest, his weak heart, his sunken stomach, his lax and puny muscles, his sallow, sunken, and lusterless eye. This class is already many hundred thousand strong, and is growing daily, through the mad rush of young men and women from the country into the cities and towns, attracted by the unhealthful amusements and so-called advantages of city life. The consumptive variety of the genus homo is so rapidly increasing in numbers that at the present time one seventh of all who die, die of that one dread disease, "the great white plague,"— consumption. More numerous still is an enormous class of individuals who may properly be denominated "the disinherited."

A philosopher has said, "It is the greatest of all human felicities to be well born." Unfortunately, not all human beings enjoy this felicity. Indeed, it is yearly becoming more and more apparent that an increasing proportion of human beings are badly born. In every large city are to be found thousands who belong to what are known as the vicious, the criminal, or the indigent or pauper classes. For the most part, these persons are born into the condition in which they are destined to spend their lives, and are little more responsible for the unhappy situation in which they find themselves than are the deaf and dumb, the blind, or those who are in other respects congenitally deformed. The only difference between the infirmities from which these persons suffer and those with which the cripple, the blind, or the deaf are afflicted, is that their physical deficiencies are less conspicuous. They are, nevertheless, as real. Their deformities consist in bad or abnormal construction of the brain, although a minute examination will reveal, in the majority of persons belonging to these inferior classes, external deformities of a very pronounced character.

Another class of deformities which may be recognized, perhaps more commonly among the so-called "upper" classes, include such congenital defects as flat or narrow chest, weakness of the heart, feeble digestive powers, a neurotic temperament, and various idiosyncrasies of mind and body. Heredity is a force which operates in the most thoroughgoing manner. Every human being is the product of a principle which has been taking careful notes of the lives and habits, the neglects, the excesses, and the abuses, of every crime against the body through all the generations from Adam down to the individual man in question. The living man or woman is simply the material representation, the focus or vortex, so to speak, of the myriad of influences which have been operating from the earliest ages of man's history down to the moment of inspection.

Man's physical, mental, and moral character is as much a matter of heredity as is the capital of wealth with which he starts out in life. The man who lives the life of the spendthrift and dies bankrupt, leaves his children penniless. Sometimes it takes a series of generations to consume completely the accumulated earnings of preceding generations. So it is with bodily and mental health. The complete mental and physical bankruptcy which lands a man in the insane asylum or almshouse infirmary may be simply the

result of two or three generations of sins against the body and the soul on the part of profligate ancestors. "The fathers have eaten sour grapes, and the children's teeth are set on edge."

The world looks with disdain upon the money spendthrift. The man who recklessly squanders the family inheritance and leaves his children penniless is regarded by the world as little short of a criminal, a thief, a robber. What does society say about the man who by a process exactly identical, disinherits his children of that most valuable of all possessions — soundness of body and mind? Society ignores the sins of this class of criminals, never asking a man to consider the consequences of his course of life upon his possible progeny, but allows him to squander, without questioning his right, the constitutions of unborn children, in open violation of the law by which nature has protected the well-being of the human race.

One of the most conclusive evidences of the degeneration of the race is to be found in the astonishing rate at which insanity and imbecility have increased within the last forty or fifty years. According to Dr. Wise, the number of insane per million persons in the United States increased between 1850 and 1890 from 673 to 1,700; and the number of feeble-minded persons or imbeciles per million increased from 681 to 1,527. In other words, the number of feeble-minded per thousand or million at the present time is nearly three times as great as fifty years ago; and the same is true with reference to the insane in Great Britain and Ireland, older countries, and in which certain causes of degeneracy have been even more active than in this country, the number of insane per million having increased in thirty years — that is, between 1862 and 1891 — from 1,810 to 3,070. From these facts, for which I am indebted to Dr. Arthur Mc Gugan, of the Michigan Asylum for the insane, it appears that the process of degeneracy going on in this country is likewise proceeding at a similar rate in other countries.

That this great increase of individuals who are mentally deficient is largely owing to the influence of heredity cannot be questioned, since it has been shown by careful observations made by Dr. Hurd, of the Eastern Michigan Hospital for the Insane, that the evil effects of intemperance are to be recognized most clearly in the extraordinary frequency of insanity and mental deficiency in the children of drunkards.

Through this almost universal ignoring of the duty devolving upon every human being to preserve intact, as far as possible, the natural powers transmitted to him from his ancestors, and by training and painstaking development make the most of them, we find the human race deteriorating in physical stamina and a rapidly growing multitude of "disinherited" individuals who are born into physical, mental, and moral bankruptcy. It is high time that society gave more serious attention to this great class of bankrupts by heredity, from which springs the greater share of crimes and criminals, cranks, lunatics, fanatics, and imbeciles.

Public health measures protect the weak, not the strong: the strong man is able to take care of himself. The perfectly healthy man, adhering to the divinely appointed laws of his being, is able to cope successfully with any germ which he is likely to encounter under the natural conditions of life. Barbarous nations maintain the standard of racial vigor by destroying the weak and feeble. The ancient Romans tolerated, and at one time even encouraged, infanticide, making it the duty of the midwife to strangle at birth deformed or puny infants. But the spirit of our modern

Christian civilization is to succor the weak, to protect and preserve the feeble. The hard-hearted medical editor who recently argued at great length in favor of the proposition to kill all idiots, received no support from his medical brethren, it being evident that any argument which would justify the killing of idiots would make equally proper the killing of incurably insane persons and the helpless, blind, and aged,— perhaps also the crippled and deformed, the cancerous, and other incurables.

The genius of Christianity, however, is not the dominance of the strong, but the protection of the weak: he is greatest who serves the most. Here seem to be two principles at war with each other,— a principle in the natural world tending to the weeding out of the feeble and weakly, and the principle in the spiritual world demanding the sacrifice of the strong for the weak. If to be perfectly natural is to be truly spiritual, as the writer believes, there ought to be some way of reconciling these conflicting principles. It certainly will not do to maintain that quarantine laws shall be abolished, and that cholera, typhus, and the black death be allowed to ravage the densely populated cities of to-day as they did those of the Middle Ages.

The remedy is to be found, not in the abolition of public hygiene, but in the cultivation of private hygiene. More attention must be given to the training of the individual: men and women must be made to see that the prevalent conditions of our modern civilization are anti-natural, and tend to the deterioration of the vital powers and the development of disease.

(To be continued.)

A MORNING WALK IN PARIS.

BY MARY HENRY.

THE American who has a natural liking for the French people, and who thinks of the brave and sturdy race from which they sprung, would far rather study the streets of Paris in the morning than at night. From the middle of the day until late in the evening, the forces of wickedness seem to be gathering momentum for the regular midnight plunge into every conceivable dissipation. During the forenoon the great city is sleeping off her debauch, and the early pedestrian may see what there is of wholesome activity. If he has a reflective turn of mind, a great many queer thoughts are sure to come to him. Perhaps he starts for his walk from the neighborhood of the Pantheon in the Latin Quarter. He could not pass the beautiful little church of Saint Etienne du Mont, close by, without thinking of the crowds of people he has seen pushing their way thither for the annual celebration of the fête of Saint Genevieve, the patron saint of Paris.

He remembers that fourteen hundred years ago, as the story runs, this holy woman, by her prayers, saved the city from savage Huns, from famine and from flood. Ever since that day the French have held her memory in deepest veneration. But they have not followed her example, for, according to the chronicle, Saint Genevieve was a vegetarian, and a very strict one at that, since she lived thirty years on barley bread and dry beans, indulging in only two meals a week of even this heroic fare.

Considering the question of food alone,

it is a wonder that the Frenchman of to-day does not shrivel up and dwindle down, physically, mentally, and morally, even faster than he is doing. The daily life of his stomach is one long history of degradation and insult. Before he gets up in the morning, he pours into it a quantity of wretchedly made coffee and swallows a roll, without any attempt at mastication. Then he turns over in bed and takes another nap. His "breakfast with the fork" at noon and his dinner at night consist of a heterogeneous mass of incompatibilities,— soup, fish, meat, salad, vegetables, black coffee, cheese, biscuit. As everybody knows, the French are famous for the concoction of highly spiced and wonderfully mixed preparations to eat. More often than not, the dinner ends with cigarettes. In Paris nobody thinks of drinking plain water. It is almost impossible to get it, even if you insist upon it and offer to pay for it. It is not very "plain" when you do get it, for until recently, hardly any attention was given to providing the city with pure water to drink. But the French people drink with their meals every imaginable kind of intoxicant from *vin ordinaire*, or red wine, beer, and cider, to brandy and *chartreuse*.

CHURCH OF SAINT ETIENNE DU MONT, PARIS.

From the church of Saint Etienne du Mont, our American follows the narrow streets down toward the river. Here and there he sees a group of laboring men going to their work. They are bareheaded, although it is winter. They wear dark blouses and carry dinner pails or baskets. Almost invariably they are reading *Le Petit Journal* or some other penny newspaper, as they walk, for it is very noticeable that the workingmen in Paris read the papers.

One always feels like stopping on the street corner for a moment to watch a

small procession coming down the street, sending waves of muddy water to the gutter and leaving clean stones behind it. These are the street-sweepers and cleaners, the Paris broom brigade. They are not at all interesting from an esthetic standpoint, but when you think that this great city, covering nearly thirty square miles, is swept all over every day, that every broom is registered and every man in the cleaning force is obliged to serve an apprenticeship before he is allowed to sweep, you feel curious to see how the affair is managed. First comes the large sweeping brush, about six feet long, mounted on wheels and drawn by a horse. Sometimes two of these brushes go together, one after the other. A man sits upon a little seat over the brush, and guides the horse. Another man follows on foot with a broom, and sweeps the line of dirt thus formed into a stream of water that has been turned into the gutter. The water is allowed to flow until it runs perfectly clear, and is then turned off. Some parts of Paris are swept twice or three times on rainy days.

The American is inclined to wonder why the people of Paris are not more particular about some other things. He would rather have mud under his feet than germs in his mouth. It always gives him a shock to see how they treat bread in Paris. It is carried all about the streets without even a string around it, to say nothing of paper. To be sure it has a hard crust, but one would like to feel free to eat that. It is baked in long rolls that are often stacked up in a corner of the bakery like so many umbrellas. Women buy these long rolls, and start off clasping them affectionately to their bosoms and resting the ends against their hair. Men forget that it is n't a cane they are

Rue de Rivoli, Paris.

carrying, and rap the end of the roll on the pavement. A woman may sometimes be seen dozing on a bench in the Luxemburg garden, cozily hugging a great

"Merchants of the Four Seasons."

round loaf. It is not a thing unheard of to see a woman thumping a man with a fresh-baked roll. If it breaks in two, nothing daunted, she will beat a tattoo on his back with the pieces.

Another common sight, and one to strike terror to a hygienic stomach, is a little three-cornered or rectangular open place between shops, where a man sits all day long with a kettle of boiling lard in front of him. His sleeves are rolled up, and he holds a large pan on his knees. Here he pares and slices potatoes, throws them into the kettle, dips them out with a ladle, deposits them on little pieces of brown paper, salts them while you wait, and sells them at two sous a paper. All sorts of victims, waiting to carry off these unwholesome packages, often stand in line for a quarter of an hour or more, watching the man work.

It is a pleasant relief to watch the itinerant fruit and vegetable pedlers. They are called "Merchants of the Four Seasons." This is a very appropriate term, for they travel their circuit with their two-wheeled carts the year round, bareheaded, laughing, talking incessantly.

By this time we have come out in front of the Palais de Justice, where military companies are drawn up for the daily drill. Our frontispiece shows this place, with the bridge near it. One feature of the morning walk anywhere is the sight of young soldiers marching in double quick through the streets.

Most of the French soldiers are slight and short, and to American eyes seem greatly deficient in military bearing. Perhaps they would stand up straight if they supposed any one were looking, but the ideal soldier would carry himself with dignity in a desert. The French recruits are not required to be more than five feet one inch tall. Indeed, according to the latest military law, a man even shorter than that could not get a permanent excuse from service. They simply give him two more years in which to grow, but at the end of that time, whether he grows

A Company of Soldiers.

or shrinks, he must enter training. This physical deterioration is one of the most significant indications of the rapid and general degeneration of the French race.

From the Palais de Justice we cross the bridge, Pont au Change, and follow the quays toward the Louvre. The river is not so fascinating as at night, when the brilliant lines of light on all the bridges and the colored signals on the swift passing boats make a scene to inspire a poet, to cause even a commoner to linger, but in the morning we find a charm in the curious long lines of old books exposed for sale all along the quays on both sides of the river. Most of them are second-hand books in various stages of preservation and decay. They are displayed in broad, shallow boxes or cases fastened to the top of the stone wall at just the right height and angle to attract the passer-by. No one ever seems to be in charge of the stock until you begin to handle some volume or to look about. Then a little man or a woman or a small boy will bob up from somewhere and begin to talk. Sometimes, if you seem gentle, you will hear a story of the woes of the people in France, of the great gulf between the rich and the poor, of the rights of socialism, of the lack of sympathy under the sun.

The American goes home with an ache in his heart. He loves this great city, with its beautiful streets, its varied and fascinating life, its treasures of art, its wonderful monuments. Taken as a whole, he loves the French people. Their gaiety, their impulsive friendliness, their light-hearted irresponsibility, by very contrast, charm his practical soul. But he feels that neither the poor book-seller with his belief in communism, nor the soldier with his schemes for war, nor the statesman with his plans for bettering the republic, not one or all of these can restore to France strong sons and daughters. Taken individually, the Frenchman is fast becoming a wreck. From any sound mental, moral, or physical standpoint, he presents an almost perfect example of what not to do, if you would be well and strong.

BOOK STALLS ALONG THE SEINE.

THE NATURAL MAN A VEGETARIAN.

BY J. H. KELLOGG, M. D.

IT is a popular fallacy that man is by nature a flesh-eating animal. A study of the human stomach, of the alimentary canal, of the entire human organism in fact, shows beyond the possibility of a doubt that man is not carnivorous, that the use of flesh is an artificial practise, a taste acquired through long generations, a cultivated habit, and not necessary even now.

The majority of the human race do not eat meat at all. Of the fourteen hundred million people in the world, not more than one in ten ever touches it. There are millions of people in China who do not eat meat. There are two hundred million in India who consider flesh-eating a sacrilege. Dr. Place of Calcutta, tells of a man there who was sick with pneumonia. He was lying under a shed, destitute and miserable. He was found by a nurse who took him home, cared for him, and prepared him some food. But the man refused it. He said, "I will die before I will eat that." Being asked why, he said that it was because this food had been prepared by people who had soiled their hands with meat. He would die before he would eat meat or anything cooked by a person who had eaten meat. While in the case of this man it was a question of caste rather than of hygiene, the hygienic principle was back of the law of his religion, a law that is conscientiously obeyed by nearly three times as many people as there are in the United States.

In South America there are millions more who do not eat flesh. They live on bananas and the fruits of the earth. Judge Graham, who spent several years in Holland, as minister at The Hague, found that the common people of Belgium and Holland rarely eat meat. He reported that a gentleman who employed several hundred workmen said to him, "We give our workmen meat once or twice a year." A number of years ago I visited England and was in the "Black Country," where the people are stalwart and magnificent. They are all strong, even the women. You will see women standing at a blacksmith's forge all day long. I saw one woman making nails for the shoes of camels in the desert of Sahara; she was wonderfully skilful. I found that these people never taste meat, except on Sunday, when they get a soup-bone. They live upon beans and brown bread, and the plainest and simplest foods. I spent a little time in Italy some years ago, and went out among the peasantry to see what they ate. I found that they never taste meat. They live on chestnuts, peas, beans, barley, and wheat coarsely ground,— the very simplest products of the earth.

One day I was driving along the streets of Naples, and saw a group of boys gathered around an old woman, who was dipping something out of a kettle standing before her on a little stove. I soon discovered that she was roasting chestnuts for their breakfast. As fast as they got them, the boys would toss the chestnuts into the air, and then blow them until they were cool enough to eat. They had also a little macaroni and some cooked cheese. It was just sunrise. Now these boys were splendid fellows. They worked from early morning till sunset during the long summer days, in a tannery,— and that means hard work,— and they had nothing to give them strength but chestnuts and macaroni and cheese.

Some time ago I met a gentleman who had been Minister of Agriculture in Japan. He said that in the large cities of

that country, he would often see men coming down the streets who seemed to be of another race. The first time he met a spectacle of that sort, a Japanese friend was walking with him, and he asked him what that man was, who seemed to be a giant, head and shoulders above the rest. The reply was, "He is a wrestler, you can tell one as far as you can see him." They are great, broad-shouldered, thick-chested men, six or eight inches taller than the ordinary Japanese. These wrestlers have become strong and vigorous because they have established a sort of caste. They have intermarried until they have become a distinct race. They live upon an absolutely vegetarian diet, upon rice, peas, beans, lentils, and foods of that kind, and they are the finest men on earth. Similar facts and incidents might be cited about the peasantry of Germany, Ireland, Scotland — of all countries except America. America is the only country in which the common people make a free use of meat.

Another interesting fact is that a carnivorous animal is a great deal better off without meat. This may seem ridiculous, but yet is it not true that a dog is a great deal better dog without meat? A dog fed on meat is cross and savage. He is not a good watch-dog. He sleeps more. When he is eight or nine years old, he gets rheumatic, and before he is twelve or fourteen years of age, he must be shot. I know a dog that is twenty years old, a strict vegetarian, and he eats only two meals a day. A friend of mine was personally acquainted with that dog. He belonged to Senator Palmer.

Hunters feed their dogs on corn-meal and oatmeal and that kind of foods. I asked a dog trainer who kept a large number of dogs why he fed them on corn-meal and oatmeal. He answered, "Because it gives them sound wind. If a dog eats meat, he has no wind." Some years ago I had a fine dog that I sent to a dog school to get an education. I sent a line to the president of the school, saying that my dog was a vegetarian, and I did not want him to have any meat; that he was to take a term of lessons and learn what a dog ought to know. I got a note in return saying that I need not be afraid that the dog would have meat, for he never gave his dogs meat. On inquiring why, I was told that if he fed his dogs meat, he could not teach them anything. Some time ago a dog trainer brought twenty-five dogs to the Sanitarium, and I asked him what he fed them. He said, "Corn-meal, oatmeal, and bread." Said I, "Don't you give them any meat?"—"Never." "Why?"—"Because it makes them savage and cross." Now is it not strange that the men who rear dogs, which are carnivorous animals, find out that meat is bad for them; while human beings, who ought certainly to keep themselves in the highest intellectual and spiritual condition, in the clearest-headed and best possible physical condition, seem determined not to realize that meat makes them cross and stupid, that they are not so well in any way when they use it? Men know this for their dogs, but they have not yet learned it for themselves.

I, too, rest in faith
That man's perfection is the crowning flower
Toward which the urgent sap of life's great tree
Is pressing; seen in puny blossoms now,
But in the world's great morrow to expand
With broadest petals and with deepest glow.

— *George Eliot.*

THE MAN AND THE HABIT.

THERE was a man who had a habit. The habit was a pleasant, amusing creature, who, when the man's soul was weary within him, would sing or cheer him with lively chat. It was small, of the figure of a manikin, an inch or two high; and if the man grew tired of its tricks, he would take the little creature in his hand and put it away in a small box, and resume his toil. Now, the life of the man grew more somber, and he took the manikin oftener from its resting-place and bade it amuse him. And at length so pleasant was the company of the habit that the man no longer banished it to its casket, but placed it in his bosom. The warmth of the man's bosom fostered the little creature, so that it grew larger; but still the man did not find it irksome to have the habit in his bosom. But the manikin continued to grow till its height was doubled, and each day, being often exercised to please its master, its strength increased and it became more daring, coming out not alone at its master's call, but even if his mind so much as dwelt for a moment upon it. Often he bade it return into his bosom, and the habit obeyed; at other times he laughed at the readiness of its appearance, and watched its antics with amusement, saying to himself, "This is my servant; if I command, the habit will surely obey."

Still the habit grew in stature and in wilfulness; but so charming was its behavior, and so delightful its song, that the man grew less authoritative, saying, "It is a good creature, and would fain cheer me, its friend and master."

Once the man said, "Thou growest a great creature, sweet habit." But the manikin drew itself up. "Habit," it echoed, "I am no longer a habit; I am now a passion." Then the man grew angry at its presumption, and thrust away the puppet roughly, saying, "I will not endure thy boasting."

Yet he afterward relented, and thought lovingly of the passion. "It is a kind creature," he said, "though self-willed; but I am a man, and its master."

The passion grew more and more powerful, and clamored unceasingly for a hearing, and the fashion of its face altered so that it became somewhat ugly to look upon. Then the man would put it aside for a time, and strive to forget it. And when he took it out again, the passion was so humble that he forgave it and took it into favor. After a time it became so insolent that he began to feel afraid, for its strength and stature became greater daily, and he could with difficulty force it to obey him. And the man said, "I must subdue the passion ere it grow too powerful," but he ever put off the day, for he thought of the fellowship of the habit, and strove to think the passion was but a puppet still. The passion refused to stay at home when its master went forth to his toil, and he was obliged to lock it up; but, thinking upon it in the market-place, the passion would break away and come to him. At length the man said: "The passion must die," and he bound it with strong chains and gave it no food for a season; but ever, ere its life went from it, he relented and gave it sustenance, and it broke the chains and clung to him.

One night the man awoke trembling, for a cold hand lay upon his heart. It was the passion.

"Away to thy den; leave me," cried the man. "Go, passion." But the figure remained, grinning horribly.

"I am not thy passion," it said, "I am thy vice; thou hast nurtured me, thou hast trained me; I am now thy master. Embrace me."

And the man folded the creature to his breast, closing his eyes, and striving to believe that this was only the habit.

He opened his eyes and beheld a ghastly skull close to his face, and it was a skeleton that he held in his arms. And his soul died within him. Then he said to the vice: "Kill me I pray thee, for servitude to thee is worse than death."

"Nay," said the vice, "when I was *thy* habit, and amused thee, wouldst thou have killed me? Why, therefore, should I destroy *my* puppet?"—*John Francis, in the Vegetarian.*

LIFE FOR LIFE.

LOVE fills the teeming earth with food,
With food of life unstained by blood;
God's word is written everywhere —
On fruitful trees and upland fair,
Thy food, the herb, the seed, the tree —
The earth an Eden blooms for thee.

Ye seek for food of life amid the dead,
And tear up mangled corses to be fed;
Ye to the slaughter-house repair —
And from the shambles take your share —
Which choose ye then to be your mate
Love's angel, or the fiend of hate?

Ye quench the bounding life for food,
Ye choke the soaring song in blood;
The uplifted ax, the winged lead,
The murderous steel by which you 're fed;
These weapons forged by selfish hate
To make the earth all desolate.

The food procured by wrong and strife
Can never grant thee peace and life;
The food procured by groans and fears
Can only substance make for tears;
Nemesis stands beside the hand
That spills the life-blood in the sand.

Your shambles and your slaughterers drear
Are altars raised to hate and fear;
Dread monuments of human lust,
On which you slay your holocaust;
The tiger in your soul to feed —
Man, beast, and bird hath served your need!

—*Astley Walton.*

A Vegetarian Bicyclist.

A bicycle performance by a vegetarian, Mr. Turner, of England, shows that a vegetarian diet is capable of supporting muscular exertion of the most vigorous character. Mr. Turner covered on his wheel between 7 : 30 A. M. and 6 : 20 P. M., 178 miles, stopping several times to rest and eat, and once to repair his machine.

Vegetarian Literati.

The English papers announce that Mr. George Bernard Shaw, the eminent English literary critic, is a vegetarian, and that he has recently met with such success in certain lines of literary work as to place him at the head, especially as a dramatic critic. Vegetarians, by the way, are rapidly getting ahead in everything over in England. In athletics, especially such as require prolonged exertion and endurance, as in long-distance walking matches, they have carried off the first and second prizes.

Disease among Cattle.

During the present year, disease among cattle has been extremely rife in various parts of the world, particularly in Holland and South Africa. In the last-named country a plague has been prevailing so

extensively that it almost exterminated the cattle in the regions over which it has spread. Professor Koch, the eminent German bacteriologist, visited the colony for the purpose of discovering ways and means for staying the plague, and announced that he had discovered a means of rendering cattle proof against the disease by a sort of vaccination; but the method appears to have been a failure, and the disease continues.

In Holland a disease known as *aphthous stomatitis* has spread with great rapidity. During the month of January alone over eleven thousand cattle were infected by the disease in Holland, three thousand animals suffering in a single province.

One Beast Apiece.

The livestock statistics show that there are raised in this country annually, more than one domestic animal for every man, woman, and child. This takes no account of fish and wild game eaten. We are certainly getting to be an intensely carnivorous nation when every man, woman, and child eats more than one beast every year.

No Use for a Doctor.

Josiah Oldfield, a vegetarian doctor, tells a rather amusing anecdote of his travels in Switzerland, during which he frequently met vegetarians: —

"I was breakfasting one morning at the hotel Couronne before starting to climb the Rigi, when a new guest took the vacant chair beside me. He was a German anxious to speak English, and I an Englishman anxious to speak German, but neither of us could do what we wanted to."

The conversation proceeded till suddenly the German turned to the Englishman with the query, "You are a merchant, are you not?"

Mr. Oldfield finally, "by means of sundry paraphrases and roundabout methods and gestures," got the information into German that he was a medical man.

"My neighbor," he says, "looked me up and down with an amused smile, half pitying, half disdainful.

"'I weel nod be a customber of yours, sir,' he said.

"'I beg your pardon,' I replied.

"'I weel nod,' he repeated with emphasis, 'ever be a customber of yours. I do not wish doctors, for why, for I am *a vegetarian!*' and his chest swelled out with pride, and a look of joy played over his healthy face, and every fiber of his body glowed with a sense of stamina and superiority to all drugs and potions, pills and plasters"

MAN is born with his hand clenched; he dies with his hand open. Entering life he desires to grasp everything; leaving the world all that he possessed has slipped away.

DR. ABERNETHY says that "no person can be persuaded to pay due attention to his digestive organs until death stares him in the face."

NOTHING is so opposite to the true enjoyment of life as the relaxed and feeble state of an indolent mind. — *Blair.*

A GREAT many children, both of the higher and the lower class, are, nowadays, mentally and physically handicapped for life by overtaxation of the brain in the schools, while being supplied with an insufficient and erroneous diet, consisting to a large extent of white bread and meat. All parents should see to it that their children are furnished with wholesome brown bread and fruit every day.

A LACK IN PUBLIC SCHOOL EDUCATION.

FLORENCE KELLY, of Hull House, Chicago, in a late number of the *Chautauquan* magazine, gives very forcible expression to her regrets as she sees the lack of training girls in trade and technical education in the public schools of Chicago; and, indeed, the same condition prevails all over our land. The training furnished in these schools, at least in the lower grades, is not fitting the students for practical life, she argues, but only for sweat-shops, laundries, stores, etc. There is no suggestion of any household art or science, and the higher schools are no better in this respect than the lower.

After speaking of a board school in London in which the children were taught to cook their own food, and even carried home the articles they had cooked, paying therefor enough to cover the cost of the materials used, she says: —

"The subjects which normally occupy happy women almost to the point of monopolizing their attention, are food, clothing, shelter, and the care and nurture of children. But the curriculum of our grade schools excludes these subjects, and substitutes for them the study of words and numbers as adapted to the retail stores.

"The traveler from Mars could hardly escape the inference, if he knew our life only through our schools, that this is the last generation of our race; for there is no preparation in them for the race in the future. Cooking, sewing, designing garments, furniture, or houses, hygiene in practical relation to food, clothing, ventilation, or the care and cleanliness and rest of little children — is there any grade school which deals effectively with any of these matters, without which the race could not complete the first quarter of the incoming century?

"Hygiene, it is true, is taught out of a book, to the relatively small number of children who persist into the second half year of the seventh grade; but this is a small minority of the children, and the teaching is far from vital or immediately valuable.

"Little girls in the primary grades could perfectly well be interested in their clothing — in the questions why dark clothing is more serviceable than white; why woolens are more wholesome for people who are doing hard bodily work than cottons; why cleanliness is needful for the health of the skin, especially in the case of babies and little children. In the fifth grade the children are already old enough to understand and take a keen interest in the simple principles of laundry work or even of dyeing; and their arithmetic might well concern itself with the cost of foods, the length of time that a garment may be expected to wear as a factor in determining the relative prices of goods, the cost of daily chewing gum and cigarettes compared with the cost of books bought at regular intervals, or of annual trips to suburbs and parks. . . .

"The fact that the technical subjects referred to as suitable for young girls are to-day repulsive rather than attractive to them is a severe indictment of the work done in the schools; for, rightly taught, these subjects are more absorbingly interesting than any others to young girls."

DR. MALCOLM MORRIS, of England, recently stated that he believed medicine (in which he included the whole art of healing) had made greater progress during the last sixty years than it had done in the previous sixty centuries.

COLORADO SANITARIUM QUESTION BOX.[1]

BY W. H. RILEY, M. D.

(Continued.)

8. WHAT are your objections to the use of meat as a food?

Ans.— It is rather a long story to tell all about why meat is objectionable as an article of food. In the first place, it is unnatural to eat the flesh of dead animals. It might not seem so at first thought: it did not appear so to me for a long time. But if one will give the matter careful thought, he will find it is true. We have three great divisions in the natural world: First, the mineral kingdom, or inorganic matter; second, the vegetable kingdom. Plants live upon inorganic matter; they do not require anything else. They take the carbon, hydrogen, nitrogen, and oxygen from the earth, air, and water, and under the influence of sunlight put these elements together and form substances in themselves which are food to the animal kingdom. This is the way plants live. Third, the animal kingdom. Animals live upon the vegetable kingdom. This is natural. But it is unnatural for one animal to live upon another animal. I use the word "natural" in its best meaning. It might seem that since carnivorous animals eat flesh, it is perfectly natural to them, but it is really a habit which has been acquired, and is not natural in the strict sense of the term.

Another objection to the use of meat, that might be given, is that meat is not a necessary article of diet. While meat is a food, it is not a necessary food, nor the best kind of food. As a matter of fact, there are more people living in the world to-day who do not eat meat than there are that do. If we go back in the history of the world, we find that the Romans, the Egyptians, the Persians, the Greeks, and other ancient peoples did not eat meat. In the Oriental countries to-day whole nations live without meat, and enjoy good health.

There is always a breaking-down process going on in the bodies of animals, by which complex chemical substances are broken down into substances less complex. These less complex substances are of no use to the body, and are carried out by elimination. When an animal is killed, a large amount of this waste matter is retained in the tissues of the animal; so when one eats the tissues, he eats these waste products, which are of no use to the animal in which they are formed, and are of no use to the one who eats them. In fact, they are not only useless, but act as irritants, and to some degree, at least, are poisons to the body. These substances contain no energy, or at least very little, and consequently are not a food to the body.

Another objection to the use of meat at the present day is that it is very apt to be diseased. Some tests recently made in the State of Massachusetts and in Philadelphia show that ninety five per cent. of the animals tested in that section were affected with tuberculosis. If meat is thoroughly cooked, the germs of tuberculosis are destroyed, so the individual will not take the disease; yet all must agree that even if the germs are dead, diseased meat is not fit to eat. Most meat eaters do not have their meat thoroughly cooked. Thus disease is often communicated from the flesh of animals that have been diseased.

There are other foods that are better than meat. Some people have the idea

[1] Stenographically reported.

that meat is more strengthening than any other kind of food. This is a mistake; there is more strength in a pound of wheat than in a pound of beefsteak. The reason some think meat is more strengthening than other foods is because it is more stimulating.

9. If meat is a food, why do you object to its use?

Ans.— Meat is a food, but it is not the best kind of food. I object to its use for the reasons I have given, and many others. It is not the best kind of food for those who are well, and usually not for those who are sick. For persons who have lung trouble and have a very poor appetite, and do not relish other food, I would not advise too close a restriction in the matter of meat-eating. However, I have seen many cases of tuberculosis where the night sweats, loss of appetite, cough, expectoration, and fever all disappeared, and the patient gained in flesh and strength and had a ruddy complexion without eating any meat.

10. Do the germs of tuberculosis live and grow outside of the body?

Ans. — No, not to any extent. The germ of tuberculosis is very particular about the place where it lives, and will grow only under the most favorable conditions. The requisite temperature is about that of the body, 98° to 100°F. It will grow on cooked potato, bouillion, agar-agar, and some other things, but does not flourish to any extent outside the body. The best place for it to grow is in the body, where there is the proper temperature and the proper amount of moisture, and where it can live upon organized matter. The germ of tuberculosis cannot live upon the elements, but must get its food from organized bodies, such as the animal. It grows in the lungs of nearly all animals. The Jersey cow particularly is very susceptible to tuberculosis, whole herds being found afflicted with the disease. The horse does not take the disease, and seldom the dog, or white mice, or rats; but nearly all other warm-blooded animals are subject to the disorder. The germ does not grow in cold-blooded animals, probably for the reason that the temperature of the body is too low. The spores of this germ are very tenacious of life, and must be subjected to a high degree of heat for some time in order to destroy them. These spores, or seeds, have within them sufficient vitality to grow and develop into full-fledged and well-developed germs under favorable conditions. They irritate the lung tissue and set up an inflammation. This inflammation often takes the form of little tubercles, or bunches. Sometimes these are found in the sputum of patients.

If the patient suffering from this disease will keep the lungs well disinfected by inhaling some volatile antiseptic substance, conditions will be brought about which are unfavorable for the growth of the germs, and after a time they will disappear entirely. At least when the patient does not expectorate and we cannot find the germs, we have every reason to believe that they are entirely absent.

I have just been looking over a hundred cases of tuberculosis treated at the Boulder Sanitarium during the past year, and I find a very large percentage have been cured or at least greatly benefited; and many of these were very bad cases.

In the treatment of this disease the patient has something to do as well as the physician. In fact, more depends upon the patient than upon the physician. The physician simply directs him along the way he should go; and if he keeps going and working for health, he will finally develop into health. A little must be accomplished every day. It is like getting a load up a long hill. Some days one may slip back, and the next day he has to go over the ground he has lost.

The next day he goes on a little farther and makes some progress. Thus he continues until he gets well; and when he gets well, he should take the best of care of himself, so that he may keep well.

11. By what means do the germs of consumption enter the body?

Ans.— Usually by means of the air we breathe. Sometimes they are taken in diseased meat or diseased milk. This is one reason why we sterilize all of our milk here. We do not use milk from cows that are in any way diseased, but as a preventive against any germs that might get into the milk on its way from the stable to the table, we sterilize all our milk. The germs frequently get into the milk from the animal's having the disease; but they are more often taken into the body in the air we breathe.

12. Why is it that those who come to Colorado for lung trouble cannot afterward live in the East?

Ans.— This is a popular idea with many people; but they do not seem to understand the situation, or the real facts in the case. The reason why people cannot live in the East after having lived in Colorado is not owing to the climate of Colorado, but to the disease they have. They may stay here and be cured of their disease, or may at least be able to live comfortably here with it; but if they go back to a moist climate, the disease begins again to manifest itself; while here, under favorable climatic conditions, it is kept in check, remaining latent, and often entirely cured.

13. What is the cause of consumption of the lungs?

Ans.— The real cause of tuberculosis, or consumption of the lungs, is the presence and growth of the bacilli of tuberculosis, or, in simpler terms, the germ of consumption. This germ is a very small plant,— so small that it cannot be seen with the naked eye. It requires considerable magnifying to bring it into the vision, even under the microscope. It usually enters the lungs by the air breathed; and if the vital resistance of the tissues is in a lowered condition, the germ finds a lodging and conditions favorable for its growth, and as a result tuberculosis develops.

It would be more correct to say that there are at least two factors in the causation of tuberculosis: First, impairment of the general health and weakening of the resistance of the tissues; and, second, the presence of the germ of tuberculosis in the lungs. So long as the system maintains a high degree of resistance, the germ will not grow in the lungs. It is therefore important to maintain a good degree of health, and in that way ward off not only consumption of the lungs, but many other diseases.

14. After milk is sterilized, if it is not used right away, will it again become infected with germs?

Ans.— It is very apt to, as germs are present everywhere. After milk is sterilized, it should be kept in a clean place where germs are not present, or at least not to any great extent. If the milk is kept in a proper place in a clean, covered vessel after it is sterilized, there is very little danger of more germs' getting into it.

15. Is dyspepsia a curable disease?

Ans.— Most cases of indigestion are curable under proper hygienic regulations and rational methods of treatment; but there are some forms of dyspepsia in which the glands of the stomach are destroyed and atrophied, so that they cannot secrete the proper amount and kind of gastric juice. In a case of that kind, dyspepsia could not be said to be curable, but there are very few forms of dyspepsia that cannot be cured. The word "dyspepsia" really means difficult digestion, or imperfect or partial digestion of the

food, and usually refers to digestion in the stomach.

16. Is it not better to eat supper than to suffer from hunger?

Ans.— Sometimes it is, and sometimes it is not. Sometimes it is better to go to bed hungry than with a full stomach. During sleep all the functions of the body are retarded; this is not theory, it is a fact which can be easily proved. During sleep we breathe slower and not so deep; the heart beats slower and with less force; the secretions of the body are greatly diminished or entirely absent. This is true of the secretions of the stomach and intestines, which are necessary for the digestion of food, as well as of the other secretions of the body. Thus food cannot be digested so well during sleep as when one is awake.

There are some people, who, for some cause, do not sleep well with an empty stomach. In these cases I sometimes prescribe a light lunch at night, consisting of food that is easily digested, or has been digested before it is taken into the stomach, so that it is absorbed at once and does not remain in the stomach. But as a rule this is not required. The habit of eating dinner at the fashionable hour, six o'clock, is not a good one, at least for sick people.

(To be continued.)

THE CHEWING HABIT.

BY KATE LINDSAY, M. D.

In all places and at all ages we find mankind indulging in the chewing habit. There are prepared and sold by the thousand, solid rubber nipples for babies, which are given them after they have finished their meals. The muscles of mastication are thus kept active and the development of the brain centers which control this function stimulated, until the habit of keeping the jaws in motion becomes so fixed that it is well-nigh irresistible. In the house, on the street, and in the cab, car, and omnibus, as well as in the lecture-room, and even the church, from infancy to manhood, it is chew, chew, chew,— fingers, rubber nipples, gum, and tobacco, as well as sticks, straws, etc. With all this useless work, it is not any wonder that the legitimate chewing work — that of masticating the food — should be very imperfectly done. To meet the demands of this abnormal chewing habit, hundreds of acres of land are wasted in the raising of tobacco, miles of chewing-gum are turned out by the factories yearly, and pounds of rubber gum consumed to make these useless dumb nipples which compel the baby to acquire an abnormal chewing habit before it can choose for itself. At the same time mankind are hurrying the food, which ought to be finely pulverized and mixed with the saliva by the teeth, into the stomach in undivided masses, thus insuring indigestion and other forms of alimentary disorders.

As the result of the chewing habit comes the spitting habit, with its waste of saliva. The continuous chewing keeps the salivary glands at work all the time, and they have no time for rest or repairs, so that when the normal demand is made upon them for this important digestive fluid, they can furnish only an imperfect secretion; and thus the starch, which is so essential as a food element, is not digested properly, and cannot be assimi-

lated and used by the body for the production of force.

To prove that even the immediate effect of this chewing habit is to disturb the healthful exercise of bodily functions, let any one try chewing some inert substance for a half or a whole hour, and either swallow or expectorate the saliva formed. The result will be a parched feeling of the mucous membranes of the mouth, and often a slight nausea and an all-gone feeling at the pit of the stomach. The working of any gland impairs its function so that it will prepare and secrete only a very inferior fluid when called upon to perform its legitimate work. The saliva, unmixed with starch, taken into an empty stomach or when gastric digestion is well advanced, is a foreign element, and disturbs the normal functional work of the other digestive organs. The writer has often seen children suffering from a bronchial cough, and restless at night, frequently crying out in their sleep, and sometimes waking suddenly screaming from night terrors, who, when this chronic habit of constantly sucking and chewing was broken, became much less nervous, slept quietly, and gained flesh, as all normal infants should, thus demonstrating that this pernicious habit was disturbing all the vital functions, and hindering normal development.

THE POOR MAN'S PRAYER.

We thank thee, Lord, that thou hast sent affliction to the rich —
Dyspepsia, gout, insomnia, and other troubles which
Disturb their souls by day and night and cause as much or more
Of real distress than do the ills that thou hast sent the poor.

We can't afford to ride, but there, again, their joy we balk,
For, O, thou sendest them the gout, and so they cannot walk.
Thou sendest them rich food and drink, weak stomachs, headaches, wealth.
To us thou sendest poverty, plain living, toil, and health.

We may not have enough to eat. They eat too much, and so
It 's just about an even thing which hath the most of woe.
We have no time to rest by day. They cannot rest at night.
So, all in all, it seemeth things are pretty nearly right.

O, glad are we the rich must have, while living off the fat,
Hay fever, likewise paresis and lots of things like that.
And so we 're thankful for our joys, the greater part of which
Is thinking of the many woes thou sendest to the rich.

— *Nixon Waterman.*

EVERY man to-day has a weight to carry put upon him before he was born. It may be a dull brain, a diseased body, a hereditary tendency to drink or steal, a crooked spine, or a dark skin. He goes tottering up the hill under his bag of stones. The world about him, generations yet to come, and others not seen by him, will watch him climb and fall and climb again.

Victory always comes to him who climbs steadily; and he may be sure that at the end nobody will ask whether his weight was a broken back or a dark skin, but how far with it up the hill did he go? — *Rebecca Harding Davis.*

THROUGH THE GOOD HEALTH SPY-GLASS.

Among birds, those that sing are grain feeders, while those that eat meat, croak.

Boys in the high school of Cincinnati are being taught to cook. They have regular lessons in the chemical processes of cooking, after which they prepare a meal — then they have to eat it.

The famous singer, Lilli Lehman, in describing her daily routine, says, "Eating and drinking do not take much of my time, for I am a vegetarian, and this suits my nerves extraordinarily well."

"Why, doctor," said a friend to a vegetarian physician, "I never saw anything like it, you work like a horse!"

"That 's because I eat like a horse," retorted the doctor, "simple food and not too much of it."

The felt shoe is considered by eminent physicians to be the best covering for the feet. Felt is a better non-conductor than leather, because of the air confined in the meshes of the felt. Felt boots are warm and comfortable. Although not designed for wearing in the wet, they are the best protection against cold.

One of the Buddhistic religious services is a mass in which the officiating priest chants a prayer of which the following is a part: —

"I vow not to slay any living creature.
I vow not to take my neighbor's goods.
I vow not to give myself up to sensual pleasures.
I vow not to drink any intoxicants."

"No, Willie dear," said mama, "no more cakes to-night. Don't you know you cannot sleep on a full stomach?"

"Well," replied Willie, "I can sleep on my back."

This story shows that boys are just men before they grow tall. Forty-nine men out of fifty would rather sleep on their backs or lie awake all night than forego the delectable feeling of swallowing cakes.

Artificial oysters are the latest fraud in Paris. These are not "mock oysters" made of meat in the form of a patty, but a very clever imitation prepared to serve raw. They look very much like the genuine article, since the manufacturers buy second-hand shells from the restaurant keepers, and by means of a tasteless paste fasten the artificial oyster in its place. What they are made of is a mystery, but it is perfectly certain that these spurious productions cannot carry more poison into the human stomach than does the real bivalve.

A mysterious death in Chicago recently caused excitement because a woman was suspected of murdering her husband. When it was found that the man was murdered by alcohol instead of strychnin, the excitement subsided. The coroner's physician, Dr. Elijah P. Noel, made the following report: —

"On inspection I found no marks of violence. On opening the body I found the liver enlarged, easily torn by the fingers, fatty throughout its substance, whitish yellow in color, and containing little blood on section; the upper lobes of both lungs dark red, firm, heavy, sank in water; the lining of the stomach showed large blackish and brown-colored submucous extravasations of blood, sweetish malt odor, and about one pint of yellow fluid; the kidneys were pale and fatty, and dilated transversely. Analysis of the stomach was practically negative. In

my opinion, said John B. Ketchem came to his death from chronic alcoholism, complicated with hypostatic pneumonia."

"War to the knife against germs" is the motto of a Baltimore barber, who has established the first antiseptic barber shop in the United States. Everything about the shop is sterilized, including portions of the anatomy of the customer, and the barber. The employees are obliged to have their finger nails cut short and to keep them scrupulously clean. They are required to wear short-armed coats, fitting tightly above the wrist, so as not to allow the cloth to touch the face.

A man is employed solely to attend to the sterilizers. Each cup, razor, and brush, after use, is placed in the sterilizers, and allowed to remain there fifteen minutes at a temperature of 212° F. The towels and napkins are sterilized in bags by means of hot air.

The sterilized towel is placed about the customer's neck, and the barber next proceeds to wash his own hands with sterilized soap and water. Then he dips them into an antiseptic liquid, and after drying them, begins work with his sterilized razor. The scissors are sterilized before being used to cut the hair, and a piece of aseptic raw cotton is placed about the patient's neck.

Charles Dudley Warner, in the "Editor's Study" of *Harper's Monthly*, is inspired to see a relation between "doughnuts and religion." Referring to the old order of things, he says: —

"In my conception of this old order, if your belief were right, it did not matter much what you ate. Ever-present duty did not concern itself with the body. That concerned the spirit only. The clarity of the spirit was not supposed to be related to the soundness and sanity of the body. The relation of dyspepsia to the higher life was never studied. There was affectionate anxiety about the health of our dear ones, but this was not in relation to the spiritual condition of the one afflicted. The effect of diet upon temperament, upon kindly feeling, upon character, was not much considered; its relation to religious life not at all. And, indeed, there were shining instances of great spirituality in the most infirm bodily conditions. It was thought to shine out with special brilliance in infirmities. And these cases led to the notion that there might be a necessary connection between bodily incapacity and spiritual growth. This may have led to the further deduction that there was no necessary connection between bad cooking and ill temper, 'crossness,' 'glumness,' 'sullenness,' curt speech, reserve, and a dull household."

A CHARACTER.

He sowed, and hoped for reaping —
A happy man and wise;
The clouds — they did his weeping,
The wind — it sighed his sighs.

Made all that fortune brought him
The limit of desire;
Thanked God for shade in summer days,
In winter-time, for fire.

When tempest, as with vengeful rod,
His earthly mansion cleft,
On the blank sod he still thanked God
Life and the land were left.

Content, his earthly life he ran,
And died — so people say —
Some ten years later than the man
Who worried his life away.

— *The Household.*

A Disinfectant for Books.

Among the contents of the sick-room which must be destroyed after a case of contagious disease, perhaps none are surrendered with more regret than the books; consequently those most highly valued are usually excluded from the sick-room, and the restless sufferer debarred from the comfort of his favorite authors during the weary time of waiting for health to return.

Now, however, it is announced that a perfectly efficient disinfectant for books has been discovered by the director of the New York Library. The substance used is formalin, a saucerful of the solution being placed in an air-tight box with the book to be treated. In an hour's time, it is claimed, the vapor will have saturated every leaf, and destroyed every germ in the book.

Exercise for the Voice.

Exercise is a powerful factor in the development of the voice. It should be taken in the open air. Children, like caged birds, lose their song. Exercise is born of the free fields and pastoral hills. A loud shout means a long breath; a rapid race, many deep ones. Thus are the receptacles of the great aërial storehouse opened, enabling us to keep on tap that which is the very essence of speech, without which no sound can be sustained. It is a fact that people reared in the country have clearer and ampler voices than those city bred. The voices of Southern nations possess invariably more music and more volume than those of the northerly tribes. Climate stimulates to an outdoor life and deep breathing, and many vocations that in colder climes are carried on indoors are performed outside. Mountaineers have louder voices than the inhabitants of the prairies, because of the respiratory development incident to hill climbing. The lesson from this is obvious. The "breath of life" is the one truth in everybody's mouth. It is the great proverb that knows no denial. In her generosity of this vital fluid, nature would give us good measure, pressed down, and running over. Yet how many of the pancake chests that drag the streets like collapsed bellows, know the swell and heave of uncumbered air, the sufficingness of an honest breath? Nothing can supplant nature's developmental gymnastics; but in those unfortunate cases where the conditions of life necessitate confinement, much may be done to expand the chest, increase cell function, and the volume of voice, through artificial breathing exercises.— *Fayette C. Ewing, M. D., in the Dietetic and Hygienic Gazette.*

No Time for Trifles.

We teach the children Danish,
Trigonometry and Spanish;
Fill their heads with old-time notions,
And the secrets of the oceans,
And the cuneiform inscriptions
From the land of the Egyptians;
Teach the date of every battle,
And the habits of the cattle,
With the date of every crowning;
Read the poetry of Browning,
Make them show a preference
For each musty branch of science;
Tell the acreage of Sweden;
And the serpent's wiles in Eden;
And the other things we teach 'em
Make a mountain so immense
That we 've not a moment left
To teach them common sense.

— *London Standard.*

ALCOHOL in any appreciable quantity diminishes the solvent power of the gastric fluid so as to interfere with the process of digestion instead of aiding it.— *W. B. Carpenter, M. D.*

THE EVIL EFFECTS OF ALCOHOL.

BY J. H. KELLOGG, M. D.

ALCOHOL, the essential constituent of all fermented and intoxicating liquors, is an ancient foe of the human race. From the time Noah fell into shame and disgrace through the intoxicating effects of wine, alcohol has never ceased to be an enemy of mankind. Like the arch deceiver himself, alcohol, one of the devil's most efficient agents for destroying the happiness of man for the present and the hereafter, gains the confidence of its victims by making great promises, which it never fulfils.

Alcohol promises pleasure; but instead of the true pleasure, happiness, and contentment which come from a life of sobriety and uprightness, it gives a mere transient tickle of the palate, a thrill to the nerves, a momentary exhilaration, and with it the bitterness of a ruined life, loss of friends, home, property, a wrecked body, premature death, disgrace, and misery. Alcohol promises comfort; but instead of the comfort and well-being which come from health, strength, and vigor, the result of a wholesome life, alcohol gives simply a temporary benumbing of the sensibilities certain to be followed by an increase of pain and suffering and an aggravation of all the miseries which it promises to relieve.

The weary man takes a glass of intoxicating liquor for the relief of pain, a weakness of the nerves, a sinking at the stomach, a general discomfort. His misery disappears. He congratulates himself that he has a never-failing remedy — a panacea upon which he may always rely. But he soon finds that his malady, his misery, is aggravated instead of cured. His weak nerves, when the influence of the liquor is gone, are weaker than before. He is completely unstrung. More liquor is required to put to sleep his crying nerves and to relieve his discomfort. Alcohol is in every way a deceiver. It fulfils none of its promises. It relieves hunger because it destroys the appetite and the power to digest food, but it does not nourish the body. It destroys pain by paralyzing the nerves, but it does not remove the cause of the pain. It makes the poor man feel for a brief time that he has boundless wealth, but it leaves him poorer than before. If a man is cold, it gives him a sensation of warmth, but he is actually colder than before. The man who is weak imagines he is strong, while he is actually weaker than before.

The purpose of the following pages is to present in a brief and concise manner the facts which modern scientific discoveries and the experience of the race have shown to be true respecting alcohol — facts to whose truth the most eminent scientific physicians throughout the world will bear witness.

1. ALCOHOL IS A CHEMICAL AGENT.— It is colorless when pure, and very inflammable, burning with a pale blue flame. It is closely allied to such chemical compounds as naphtha, turpentine, benzine, fusel-oil, kerosene, and burning fluid. It is seldom found pure, usually containing from two to fifty per cent. of water, besides various impurities, chief among which is fusel-oil, another variety of alcohol. The active chemical properties possessed by alcohol render it not only unfit for introduction into the body, but actually dangerous when in a pure state.

2. ALCOHOL COMES OF A BAD FAMILY. — "A man is known by the company he keeps." This adage is equally as appli-

cable to some other things as to men. It holds good respecting alcohol, at least. There are numerous alcohols. Fusel-oil, a constituent of bad whisky, is one; naphtha, or wood-spirit, is another; carbolic acid and creosote are chemical substances which are related to alcohol.

3. Alcohol Is a Poison to Plants.— Vital properties are pretty much the same in a general way, whether manifested by a mushroom or a man; and any substance which will destroy the life of a plant is not likely to be wholesome for human beings. If a plant be watered with a weak solution of alcohol, its leaves soon wither, turn yellow, and the plant dies, even when the proportion of alcohol is so small as one part in one thousand parts of water.

4. Alcohol Is a Poison to All Animals.— A tadpole dropped into a vessel containing alcohol will die in a minute. Leeches and other small animals succumb in like manner.

A French physician administered alcohol in the form of brandy and absinth to fowls. The animals took kindly to the use of stimulants, and soon became so addicted to them that it was necessary to limit them to a daily allowance. In two months absinth-drinking killed the strongest cocks; the brandy-drinking fowls lived four months and a half; while the wine-drinkers held out three months longer. But all finally died the death of the drunkard. The late Professor Dujardin-Beaumetz, one of the leading physicians of the world, in experiments upon pigs, found its effect to be uniformly that of a poison.

5. Alcohol Is a Poison to Human Beings.— Notwithstanding the apparent impunity with which diluted alcohol in the form of various liquors may be taken, pure alcohol is rapidly and certainly fatal when taken into the stomach without dilution. Cases of instant death from drinking a considerable quantity of strong liquor have often been recorded, and numerous cases of death from this cause are constantly occurring in every large city. As we shall show hereafter, alcohol in every form is still a poison, the rapidity of its effects being largely determined by the degree of dilution in which it is introduced into the system.

6. Alcohol Is a Narcotic.— Alcohol is exciting in its first effects; but like most other substances of similar nature, its secondary and more prominent effect is narcotizing. It benumbs the sensibilities. If a man is exhausted, it relieves the feeling of fatigue by obtunding his senses, not by replenishing his wasted energy. Persons who have died from the effects of an overdose of alcohol, present all the indications of narcotic poisoning.

A tablespoonful of strong alcohol held in the mouth for two or three minutes will obtund the sense of taste so as to render a person unable to determine between sweet and sour, saline and bitter. If taken in sufficient quantity, it will relieve the sense of pain sufficiently to enable a surgeon to perform an operation with little or no suffering on the part of the patient. Ether and chloroform are made from alcohol.

7. Alcohol Not a Food.— The aristocratic toper who wishes to give an air of respectability to his vice, will claim that alcohol is a food. He will cite, in proof, instances in which persons have lived for weeks by the aid of no other nutriment, taking nothing but alcohol and water. This semblance of argument scarcely needs exposure; for the most that can be claimed is that it proves merely that persons have lived several weeks while taking only alcohol and water. The fact that individuals have in several instances been known to live from thirty to sixty days while taking only water, shows conclusively that those per-

sons who lived a shorter time on brandy and water, lived in spite of the alcohol instead of by the aid of it.

LAGER-BEER NOT A FOOD.— After such repeated refutations of the idea, it is strange that people should still cling to the notion that lager-beer is nourishing. If a man has lost his appetite, and seems to be failing in strength or losing weight, his next-door neighbor advises him to drink daily a few glasses of lager-beer. If a nursing mother has insufficient milk for her infant, wise old ladies prescribe lager-beer or ale.

Although it is being constantly reiterated in the ears of the people that alcohol is not a food, and that beer and ale are only dirty mixtures of alcohol and water, still they refuse to believe that these pernicious beverages cannot, in some way, impart nourishment and strength. Perhaps the testimony of one of the greatest of European savants will correct the opinions of a few.

Professor Baron Liebig, a German chemist of great renown, says: "We can prove with mathematical certainty that as much flour or meal as would lie on the point of a table-knife is more nutritious than five measures (ten quarts) of the best Bavarian beer." Powerful nutriment indeed!

Water is the *only drink;* that is, the only liquid capable of supplying the demand of the system for fluid. The various beverages in common use are of value only to the extent that they contain water, the universal solvent. Alcohol, then, is neither food nor drink. It satisfies the craving for food, but does not replenish the tissues. Although a liquid, instead of supplying the needs of the system for liquid food, it creates a demand and a necessity for more.

8. ALCOHOLIC DEGENERATION.— The degeneration of the muscles, heart, brain, nerves, liver, kidneys, and in fact all the organs of the body, is induced by the habitual use of alcohol. Dr. Carpenter is authority for the assertion that the changes in the corpuscles and in the fibrin of the blood take place when not more than one part of alcohol to five hundred of blood is employed. Thus it will be seen that the very weakest wines are unsafe, since none of them contain less than from three to five per cent. Even small beer would be capable of doing mischief in this way.

9. THE DRUNKARD'S BRAIN.— The brain when in a normal condition is so soft that it would not retain its shape but for the skull. The sharpest knife is required to cut it without mangling its structure. It is necessary to immerse the organ in alcohol for weeks or months in order to harden it, when a careful examination is essential. A drunkard's brain presents a marked contrast. It is already hardened. A celebrated anatomist declared that he could tell a drunkard's brain in the dark by the sense of touch alone. A London physician reported a case in which he found, upon a post-mortem examination, so strong an odor of alcohol emanating from the brain that he applied a match to it, when it burst into flame.

By means of delicate instruments it is possible to measure the exact length of time it takes a person to feel, to think, to see, to hear, and to act. A careful experiment made by the writer for the purpose of determining the influence of alcohol upon these various senses and upon mental activity showed that the length of time required was more than doubled as the result of taking two ounces of whisky. This clearly shows the paralyzing influence of alcohol upon the brain and nerves.

10. THE DRUNKARD'S STOMACH.— A microscopical examination of the lining membrane of the stomach shows it to

be traversed by a dense network of blood-vessels, which are wholly invisible so long as the organ remains in a healthy condition. Little pockets are also found in which are located the peptic glands which form the gastric juice, the essential agent in the process of stomach digestion. In the small intestine below the stomach we have a similar arrangement of blood-vessels and glands.

In the well-known case of Alexis St. Martin, who suffered from a gun-shot which carried away a considerable portion of the abdominal wall and penetrated his stomach, leaving an opening after healing, Dr. Beaumont made some most interesting experiments regarding the effects of alcohol upon the stomach, with the following results: —

Stomach of a Moderate Drinker.— The effect of alcohol, as well as of condiments, is to produce a state of excitement and irritation in the stomach, the result of which, when frequently repeated, is permanent congestion, and numerous forms of dyspepsia. But alcohol does more than simply irritate the stomach. By its antiseptic influence, it prevents the digestion of the food, and by its chemical properties, it destroys the activity of the gastric juice, and so does triple mischief.

Stomach of a Hard Drinker.— In the hard drinker the blood-vessels are dilated, as in the case of the moderate drinker, and in addition small ulcers are seen scattered over the diseased surface. The stomach of an old toper may be in an ulcerated condition without his being conscious of the fact, as the nerves of the stomach are so paralyzed by alcohol that their normal sensibility is quite lost.

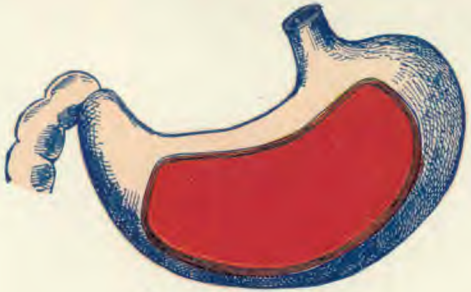
The Stomach in Delirium Tremens — In a person who is suffering with delirium tremens, or acute alcoholism, the mucous lining of the stomach is in a state of intense inflammation, so that its functions are wholly suspended. Dr. Beaumont observed on one occasion, when Alexis St. Martin had been drinking heavily for a few days, that although his stomach was in a state of inflammation and ulceration, he was unconscious of pain and felt no inconvenience, only suffering from a severe headache. Post-mortem examinations of persons who have died of delirium tremens usually disclose the stomach black with mortification.

11. Drunkard's Dyspepsia.—A drunkard is certain to become a dyspeptic. Alcohol tans the stomach, rendering it inactive, and causing atrophy of the glands which form the gastric juice, thus diminishing the supply of this digestive fluid. Alcohol precipitates the pepsin from the gastric juice, and so renders useless that which is secreted. Digestion cannot progress while alcohol is in the stomach; hence it is delayed until the poison can be absorbed.

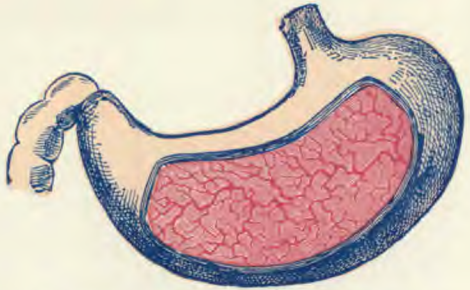
The Effects of Alcohol upon Digestion. — Professor Kochlakoff, of St. Petersburg, has experimented on five healthy persons, aged from twenty to twenty-four years, with reference to the effects of alcohol upon digestion. Ten minutes before each meal, each person was given about three ounces of alcoholic liquor, containing from five to fifty per cent. of alcohol, which is about the proportion found in ordinary liquors. The following results were obtained: —

"Under the influence of alcohol the acidity of the gastric juice and the quantity of hydrochloric acid, as well as the digestive power of the gastric juice, are diminished. This enfeebling of the digestion is especially pronounced in persons unaccustomed to the use of alcohol."

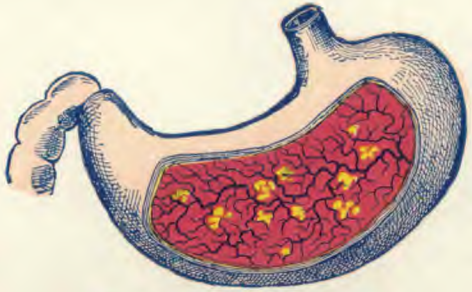
Dr. Figg, of Edinburgh, made the following experiments, to test the effect of alcohol upon digestion: He fed two dogs equal quantities of roast mutton. He then administered to one dog, by passing a tube into the stomach, one and one-



A Healthy Stomach.



The Stomach of a Moderate Drinker.



The Ulcerated Stomach of a Habitual Drunkard.

The Stomach in Delirium Tremens.

fourth ounces of alcohol. After five hours both dogs were killed and examined. The one which had taken no alcohol was found to have digested the meal entirely, whereas digestion had scarcely begun in the animal to which alcohol had been administered.

Several years ago, the writer made an experiment for the purpose of determining the influence of alcohol upon digestion, in the following manner: A young man was given a test meal consisting of an ounce and a half of bread and two ounces of water. At the end of one hour the digesting food was removed from the stomach, and the progress of digestion carefully noted. The experiment was repeated upon the same young man, two ounces of water being replaced by an equal quantity of claret, when it was found that the amount of digestive work was reduced to one third of the former amount. Repeating the experiment again, replacing two ounces of water by an equal quantity of brandy, the digestive work accomplished was found to be less than one eighth the normal amount, the stomach being almost completely paralyzed.

12. ALCOHOLIC INSANITY.— The condition of a man under the influence of liquor is precisely that of an insane man, as regards his mind. When getting drunk is frequently repeated, the condition of the mind induced by drink may become permanent, making the individual a fit subject for an insane asylum.

Intemperance, more than any other cause, fills our lunatic and idiotic asylums. According to the statistics of insanity in France, thirty-four per cent. of the cases of lunacy among males is due to intemperance. One half of the inmates of the Dublin insane asylum owe their disease to the use of liquor. Lord Shaftesbury, chairman of the English commission on lunacy, in his report to Parliament, stated that six out of every ten lunatics in the asylums were made such by alcohol.

(To be continued.)

The International Anti-Alcohol Congress.

From the report in the *British Medical Journal* of this congress, held last August in Brussels, we gather the following statements made by members of the congress: —

Dr. Motet, of the Paris Academy of Medicine, in his address on "Alcohol, the Family, and the Working Classes," pointed out the fact that the loss to the exchequer which it was said would result from the general prevalence of temperance principles was largely imaginary, inasmuch as the bulk of the revenue derived from the sale of intoxicating liquors had to be expended by the state in the discharge of the burdens imposed upon it by the consequences of alcoholism.

Dr. Destrée dwelt on the unfavorable influence of alcohol on work, whether of mind or body.

Dr. De Boeck related experiments on students, which went to show that alcohol, even in small doses, tends to paralyze the higher cerebral centers.

M. Roubinovitch gave an account of a systematic effort to check intemperance by teaching in schools; the experience of a three years' propaganda of this kind had convinced him of its efficacy.

Mr. J. Whyte, of Manchester, gave statistics from the Rechabite societies, showing the greater longevity of total abstainers.

WHOOPING-COUGH: ITS PREVENTION AND TREATMENT.

BY KATE LINDSAY, M. D.

As whooping-cough is due to a specific germ, and every case is contracted from some other case, the first thing in order to prevent infection is to keep those likely to be susceptible to the disease from coming in contact with those who already have it. This should always be done if possible in the case of children under five years of age, and especially those under two years. If proper care were exercised in this respect, the mortality from whooping-cough would be very much decreased. Children who have recently suffered from measles are very susceptible to whooping-cough, so they should be guarded from infection with especial care, as they are likely to have the disease in a very severe form, and also to suffer from complications. Children who have had rickets, or who have a tendency to scrofula or tuberculosis, are also very likely to have the disease in a severe form; many cases of this kind proving fatal either from acute lung complications during the active period of the disease, or from consumption developing soon after the attack. Children who have had rheumatism with heart complications also suffer severely from whooping-cough, the weakened heart not being able to endure the strain due to the spasms of coughing. In such cases dropsy often sets in, with increasing shortness of breath, until the patient finally dies from bronchitis or heart failure.

As the disease is more likely to prove fatal when contracted in the autumn or winter than in the spring, it is very necessary to take special care to prevent children likely to have the disease in a severe form from exposure to the contagion at these seasons. As the disease is contagious during a very long period,— six weeks or two months,— it is often very difficult to avoid exposure to it, especially when it becomes epidemic in a neighborhood. If the older children of a family are found to have contracted the disease at school, it is best to remove the baby from the house, if possible, before it is exposed. Such a thing may appear absurd to some; but when the risk to life in the case of an infant is considered, it is worth while to make an effort to save it, even if some trouble and expense are incurred.

After children have been exposed to the infection, there are still many things which can be done to lessen the severity of the attack. As the bronchitis which always accompanies the whooping-cough, and is the most frequent cause of a fatal termination, is greatly aggravated by any disturbance of digestion, it is very important that the stomach be not overloaded with food. The poisons formed by decaying food in the stomach and intestines, after passing into the circulation and through the liver, are conveyed by the blood current to the lungs, being thence spread out into the capillaries of the air-cells and eliminated into the cell cavities, irritating the mucous surfaces of the air-passages, and aggravating the already existing bronchitis. These poisons also disturb the nervous system, and increase the tendency to convulsions, which are so likely to prove fatal to children under two years old.

The overdistention of the stomach from gas also increases the severity and frequency of the coughing in the second, or spasmodic, stage of the disease; and as the contents of the stomach are usually rejected at each paroxysm of coughing,

the little one may become exhausted for want of the ability to retain sufficient food to nourish it. In such cases it is often best to give the stomach a rest, and administer nutriment by means of the enema for a day or two, after which fluid food easy of digestion may be given in small quantities. If taken shortly after the termination of the coughing fits, which occur somewhat periodically in this disease, the food will be more likely to be retained. The tubes are then comparatively free from the secretions which characterize the disease, and are much less likely to be irritated by the taking of food; and if simple in kind, it may have time to be digested and absorbed before the next paroxysm.

The writer is convinced that one of the chief causes of the great mortality of infants and small children from whooping-cough is unwise feeding. The baby becomes thirsty and cries for water, and the feeding-bottle or the breast is given instead of water. Its thirst leads it to nurse in a hurried and nervous manner, and to add more food to spoil in the already overloaded stomach. This will cause the coughing fits to occur more frequently, and if the food is not thrown up, it may cause a fatal convulsion. In other cases it increases the fever, and may result in serious organic disease of the kidneys. Eternal vigilance must be practised by the mother or nurse as to the child's diet from the time of the exposure until the termination of the third stage of the disease, and the restoration to normal health. As in all cases of disease, the digestive powers are much impaired. A child a year old may be unable to digest more than one of three or four months when in health, and should be fed accordingly. It is not the amount swallowed that nourishes the body, but the food digested and assimilated.

The child suffering from whooping-cough should have the purest air possible. In cold, damp weather, it will be necessary to keep the patient indoors, but the room should be well ventilated, and the air kept moist and at a temperature of about 70° F. It is better to have two rooms, one for the night and one for the day, so that each may receive a thorough airing. As the infectious matter is found in both the expectorations and the breath, the sputum should be destroyed and the room kept free from dust by going over the walls and floors daily with a damp cloth wet with some disinfectant. The bedding should be thoroughly aired, and if soiled with discharges, washed at once. This is very important, as the patient may keep reinfecting himself by breathing in the dust the infection which he has once thrown off.

In warm weather whooping-cough patients can usually spend a good deal of time in the open air. Care should, however, be taken to have them come in when the evening damps begin to fall, and to avoid exposure to cold early in the morning. While they should be given the benefit of change of air and allowed to go out in the sunshine on mild days even in winter, they should not be permitted, even in the mildest cases of the disease, to go out when the weather is wet and stormy. Cold winds and dampness will aggravate all the symptoms, and taking cold is often a very grave complication in whooping-cough, especially when the patient is a young or feeble child.

It is important all through this disease to keep the nose and throat clean and as aseptic as possible. For this purpose there is nothing better than the hydrozone spray, one part of hydrozone to from six to eight of water. This spray may be used once in two or three hours, and applied just after a coughing fit. The nose and lips should be moistened with vaseline or sweet-oil after the spraying.

All dust and anything which would be likely to prove an irritant to the nose or throat should be avoided, as well as anything likely to excite the nerves. Crying, laughing, loud talking, and running, as well as any mental excitement, will precipitate an attack of coughing.

During the spasmodic stage a young child should have some one to hold, comfort, and encourage it, as young children of a nervous temperament often become very much frightened when the coughing fits are unusually hard, which adds to the severity of the paroxysm. If they know that they have some one to cling to, they feel safer and less frightened. Older children should be instructed to restrain the cough as much as possible.

Sometimes there is a spasm of the glottis during the coughing fit, and the little one is in danger from strangulation unless the spasm can be overcome. Tickling the throat with a feather, and holding the tongue forward and the head downward, so that the mucus can run out of the mouth, will often give relief. If these simple measures fail, hot and cold should be applied to the spine, also massage to the throat, spine, and chest. A moist pack worn over the chest at night will often enable the patient to get a good night's rest. In some cases an ice-bag to the spine and fomentations to the chest and throat will relieve the symptoms and render breathing easier; in other cases most relief is obtained by cold applied to the chest and throat, and heat to the spine. Inhalations of steam, alone or medicated with benzoin tincture, turpentine, menthol, eucalyptol, or the like, sometimes give temporary relief, and tend also to disinfect and smooth the mucous surfaces.

When there are evidences of a tendency to congestion of the brain, as manifested by the livid look of the face and the stupor after each coughing spell, the feet should be put in warm water, and the head and spine alternately rubbed, or better still, sprayed alternately with hot and cold water. This will tend to keep the blood flowing through the smaller vessels, and in this way serious damage to the brain may be avoided.

Nosebleed is quite a common symptom during whooping-cough, and if it does not occur too often, or is of small amount, it may do no harm, in some cases even giving relief from the intense congestion; but at other times the blood comes in large amounts with every coughing fit, and so weakens the patient that he becomes pale and bloodless. A foot bath and hot applications to the back of the neck and over the nose, will often arrest the bleeding. In severe cases it may be necessary to close the nasal cavities, but this should be avoided if possible, as the foreign body in the nostrils often acts as an irritant, causing extra fits of coughing, which will, in turn, tend to increase the bleeding. In one case the writer found the nosebleed relieved after a full enema, the patient having been very constipated and having had no action of the bowels for several days. The coughing fits were not of unusual severity, but with each the blood would spurt from both nostrils, and there had been so many hemorrhages that the patient was very pale and bloodless. When the bowels were relieved, there was a very marked improvement in the case; and being an average healthy boy of ten, he soon began to recover from his bloodlessness, and in a short time was able to get out of doors.

If the digestive organs are kept in good condition, there is usually no danger in a case of whooping-cough, even in the youngest child; but it is a disease which runs a course of many weeks, and it is very important that the nutrition should be kept up. In every case the diet should be simple and easy of digestion. Older

children should be instructed to expectorate, and never swallow the poisonous discharges to infect the stomach. Infants and young children do not, of course, know how to do this, but the vomiting usually present at the paroxysms of coughing frees the stomach from the morbid secretions.

In winter, especially, older children are often allowed recklessly to expose themselves during an attack of whooping-cough. When the disease is of a mild form, the parents, thinking the child is hardy, will frequently allow him to go out of doors in all kinds of weather, and to get chilled and wet. The writer knew a case where a healthy boy of twelve in the third stage of a mild case of whooping-cough contracted pneumonia which proved fatal on the fourth day, from exposure in a snowball match on a cold, wet March day. In damp or cold weather children should wear woolen clothing, and care should be taken to keep the feet dry and warm; but while the little patients should be carefully protected from cold and dampness, to shut them up in badly ventilated rooms is still worse. The cause of the great mortality from this disease in city tenements is foul air. Many times a change of location, if it can be made without exposing others to the disease, will place an apparently hopeless case out of danger.

It often happens that a case of whooping-cough will be followed by a period of nervous depression, want of appetite, and continued emaciation. The cough and other acute symptoms subside, but the strength, flesh, and appetite are not regained, and often there is a chronic cough, which is aggravated every time the patient takes cold. Even the whoop will return at times. All these symptoms may, however, be present without any serious disorder of the lungs or any other vital organ. They are most likely to appear in young children and infants who have contracted the disease in the late fall months or the winter. The patient often does not begin to gain much until after the warm spring weather sets in and he can get out in the open air. In such cases tonic treatment should be given, such as a cold or tepid spray and massage daily, or hot and cold spray to spine and oil rub daily, also sun-baths, and exercise in the open air in dry weather. Often a carriage ride or a visit to some friend will apparently be the starting-point on the way to health. Some change in surroundings seems to be needed to encourage the depressed organs to perform their functional work normally, and the change in environment proves just the stimulus needed to both mind and body.

As whooping-cough is a disease in which the majority of cases are cared for by the parents, it is an important matter that home treatment should be of the proper kind. It is a disease from which result many complications which are liable to impair the health in after life. As most of these complications are due to errors of diet, bad air, or exposure, the most important measures of treatment in a typical case may be summed up in proper dieting, keeping the rooms where the patient lives well ventilated and free from infection, and protecting him from exposure. Especial care should be exercised in the latter respect in the winter. The bronchial tubes and the lungs are always weak after whooping-cough, as the infection produces catarrhal inflammation of the mucous surfaces of the air-passages; thus a patient who has recently recovered from whooping-cough is likely to have measles or any other eruptive disease in an especially severe form.

Seasonable BILLS OF FARE

BREAKFAST.

Fresh Fruit Cerealine with Grape Sauce
Macaroni Baked with Granola
Baked Apples
Whole-wheat Puffs with
Stewed Fruit

DINNER.

Vegetable Oyster Soup
Potato Stewed with Nuttose Baked Cabbage Canned Green Peas
Wheatose with Cream Whole-Wheat Bread
Stewed Apples Brown Betty

BREAKFAST.

Fresh Fruit
Oatmeal with Apple
Vegetable Oyster Toast
Toasted Granose
Biscuit
Corn Puffs
Stewed Fruit

DINNER.

Split Pea Soup
Baked Sweet Potato
Escalloped Tomato Mashed Parsnip
Pearled Wheat
Stewed Cranberry Apple Granose Dessert
Graham Bread

RECIPES.

Cerealine Flakes.— Into one measure of boiling liquid stir an equal measure of cerealine flakes, and cook in a double boiler from one half to three fourths of an hour. Cerealine with a dressing of grape juice makes a most palatable dish.

Macaroni Baked with Granola.— Break into pieces about an inch in length sufficient macaroni to fill a large cup, and cook until tender. When done, drain, and put a layer of the macaroni in the bottom of an earthen pudding-dish, and sprinkle over it a scant teaspoonful of granola. Add a second and third layer, and sprinkle each with granola; then turn over the whole a custard sauce prepared by mixing together a pint of milk, the well-beaten yolks of two eggs or one whole egg, and one fourth of a teaspoonful of salt. Care should be taken to arrange the macaroni in layers loosely, so that the sauce will readily permeate the whole. Bake for a few minutes only, until the custard has well set, and serve. If wanted for breakfast, the macaroni should be cooked the day before.

Oatmeal with Apple.— Cold oatmeal which has been left over may be made into an appetizing dish by molding in alternate layers with nicely steamed tart apples, sprinkled lightly with sugar. Other cooked fruits, such as cherries, evaporated peaches, and apricots, may be used in the same way.

Vegetable Oyster Toast. — Cook a quart of cleaned, sliced vegetable oysters in a quart of water until very tender; add a pint and a half of rich milk, salt to taste, and thicken the whole with two tablespoonfuls of flour rubbed to a smooth

paste with a little milk. Let it boil for a few minutes, and serve as a dressing on slices of well-browned toast previously moistened with hot water or cream.

Vegetable Oyster Soup.— Scrape all the outer skin and small rootlets from vegetable oysters, and lay them in a pan of cold water to prevent discoloration. The scraping can be done much easier if the roots are allowed first to stand in cold water for an hour or so. Slice rather thin, enough to make one quart, and put to cook in a quart of water. Let them boil slowly until very tender. Add a pint of milk, a cup of thin cream, salt, and when boiling, a tablespoonful or two of flour, rubbed to a cream with a little milk. Let the soup boil a few minutes until thickened, and serve.

Potato Stew with Nuttose.— Prepare the nuttose by cutting in small cubes or slices, and putting to stew in a sufficient amount of water to cover an inch deep. Stew slowly for an hour or more. When nearly done, add some thinly sliced potatoes, and cook together until the potatoes are tender. There should be enough liquor in the nuttose so that additional liquid will not be needed for the potatoes. Season with salt, and serve.

Baked Cabbage.— Chop cabbage fine, and cook in boiling water twenty minutes. Drain in a colander. To one quart of the cooked cabbage add a cupful of water in which has been dissolved a dessertspoonful of nut butter, two well-beaten eggs, and the juice of one lemon. Add salt to taste. Mix thoroughly, and bake in a double baker until the cabbage is thoroughly done and the egg well cooked.

Brown Betty.— Chop together one part seeded raisins and two parts good tart apples. Fill a pudding-dish with alternate layers of the fruit and bread crumbs, finishing with the bread crumbs on top. Unless the apples are very juicy, moisten the whole with a tablespoonful of lemon-juice in a cup of cold water, for a pudding filling a three-pint dish. Cover the dish, and place it in a moderate oven in a pan of hot water, and bake nearly an hour; then remove from the pan, uncover, and brown nicely. Serve warm with cream and sugar, or with an orange or lemon sauce. Stoned cherries may be used in place of the apples and raisins. In that case, each layer of fruit should be sprinkled lightly with sugar, and the water omitted.

Apple Granose Dessert.— Prepare a fruit pulp by rubbing stewed tart apples through a colander; sweeten to taste, and evaporate to about the consistency of marmalade. Spread a thin layer of dry granose in the bottom of a pudding-dish; add a layer of the fruit pulp, then a layer of granose. Fill the dish with alternate layers of fruit and granose, finishing with a layer of granose on the top. Let it stand for an hour or so, until the granose flakes have become slightly moistened. Cut in squares and serve. In its perfection this dish should be neither mushy nor variegated with dry granose, but each flake throughout should be delicately moistened with the fruit pulp. Thus it will be if care is taken in the preparation of the fruit pulp, and no more granose used than the fruit can moisten.

Diet to be Determined by Exercise.

Henry A. Griffin, M. D., in an article on "Foods," in the *Independent*, says:—

"Emphasis must be laid upon an evil which is far too prevalent, and of which investigators and writers upon dietetics are constantly urging abatement. This is the tendency to overeat. It is no easy thing perhaps to sit before a table groaning with

good things and surrounded by those who, like ourselves, enjoy them, and then to practise moderation; but while overindulgence may go unpunished for a time, sooner or later, if food be taken in excess of the demands of the body and purely at the instigation of the appetite, a day of retribution will come when, in bilious misery, if no worse, we realize that enough is sufficient. How much each should eat will be a matter for each to determine by experience. The young properly eat more in proportion to their size than those of full growth, because like all young animals they are more active, and therefore have more waste to repair. Further than that, however, in them the repair of waste is not sufficient, for growth must also be provided for, and hence a 'hearty appetite' in childhood is — within limits — a thing to be encouraged. In full growth, however, of necessity the food is taken only to repair waste, and the amount to be taken can readily be determined by each individual. In old age the requirement for food is still less, for with advancing years there is less exercise. A small amount of food will therefore suffice to maintain the nutrition of the aged, though, owing to the digestive enfeeblement of old age, that little should be simple, nourishing, and susceptible of easy digestion. . . .

"Diet should wait on exercise; for, manifestly, if food is taken to provide the means for vital power, shown in motion, and little motion is required, then little food should be used, and that of the least hearty kinds, else a harmful accumulation. To feed the laborer and the student alike would be folly; for the tissue waste of the former is great, while that of the sedentary liver is very small indeed; and yet the laborer may not have the requisite to eat, while the man of little physical occupation may eat to excess, simply because his appetite deludes him into the idea that he needs food, which straightway he takes and in consequence suffers."

HOW PRUNES ARE HARVESTED.

THE magnitude of the prune industry of California is little realized by the people of the Eastern States. In a decade the growing of prunes has gone forward in California by leaps and bounds, and to-day twenty million dollars is invested in it; that is, in lands, trees, irrigation systems, agricultural tools, and packing-houses.

The most important prune-growing section in America is Santa Clara county, in the region round about San Jose. The area devoted to growing prunes in Santa Clara county is one hundred and five thousand acres, which produced twenty-two thousand tons of prunes last year. Several of the orchards there are by all odds the largest in the world, consisting of four hundred and fifty to five hundred acres each, with forty-five to fifty thousand trees. In the Sacramento valley there are several prune orchards of one hundred to one hundred and fifty acres each, and the total yield of prunes in that locality each year is about fourteen thousand tons.

The harvesting of the prune crop, which takes place in August, is a season of great importance, and the scenes in the orchard and in the drying fields are such as to be remembered. Thousands of men, women, and children throughout the valleys of central and southern California are busy in the prune orchards and at the fruit-packing houses in these days. This is the season to which the people in the horticultural districts of the State look for earning money.

A prune orchard in itself is one of the most beautiful things in the realm of horticulture, and when the throngs of workers are there, it is an interesting sight. The thousands of trees are planted in long rows, so equidistant one from the other and in such symmetry that one may look in any direction among them and the alinement is perfect. The ground is soft and even, and the years of monthly cultivation have made it so smooth that not even a pebble or a clod or a blade of grass or the smallest weed is to be seen anywhere.

When the fruit grower, who has been daily watching the process of ripening his crop, finds that the fruit is so thoroughly ripened as to be soft to the touch, he employs a force of workers. Great sheets of cheap cloth are laid on the ground beneath the trees. Strong men shake the trees, and boys shake the branches so that the prunes may fall. The sheets are gathered up at the ends, and the fallen fruit poured into padded boxes, so as to avoid handling as much as possible. Tree after tree is treated in this way once each day until the crop is gathered. The operation is often repeated once a day for twenty days before all the prunes are harvested.

Meanwhile, the fruit has been carried to the washing-boxes and the dripping-caldrons. The prunes are put into great heavy wire cages, holding several hundred pounds each, and are dipped into running water, where the dirt is first washed away. In a moment more the cage is elevated on a frame and let down into a caldron of hot water, heavy with concentrated lye. The purpose of this operation is to remove the bloom and crack the skin that envelops the flesh of the prune, in order that the drying process may take place more rapidly. In its natural state the skin is so smooth and tough that it would take a week to dry the fruit properly for market.

From the caldrons of hot lye-water the cages are lifted again, and plunged into clean hot water, so that the lye may be washed away and a gloss given to the fruit.—*Chicago Record.*

The Total Nutritive Value of Common Food Substances.

Grains.	Per cent.
Wheat, Poland	86.8
Mich. White	85.5
" Diehle	87.8
Japanese	84.7
Rye, Winter	89.8
German	92.
Barley	82.2
So. Russian	86.
Oats	80.1
Corn, Flint	84.9
Dent	84.4
Sweet	83.7
Rice	86.9
Millet	85.7
Buckwheat	85.6
Irish Moss	81.1
Flour.	
Graham	85.1
Wheat	88.2
Rye	84.7
Barley	84.7
Oat	91.4
Corn	84.3
Buckwheat	85.8
Bean	88.
Pea	87.3
Banana	83.5
Arrowroot	82.
Breads.	
Barley	83.3
Whole Wheat	817
White	54.9
Rye	57.2
Swedish Speise Brod	87.
Zwieback, White	85.2
Rye	83.7
Macaroni	86.9
Manna	74.6
Fresh Fruits.	
Apple	13.7
Apricot	13.5
Blackberry	6.6
Banana	26.7
Cherry	14.8
Cranberry	4.1
Currant	10.7
Grape	18.2
Gooseberry	10.8
Pear	12.4
Prune	13.4
Plum	10.8
Peach	13.9
Raspberry	6.9
Strawberry	10.1
Whortleberry	9.3
Dried Fruits.	
Prune	69.2
Pear	63.7
Apple	67.
Cherry	49.4
Raisin	66.3
Fig	56.7
Date	67.

Nuts.	Per cent.
Chestnut	89.3
Walnut	88.2
Hazelnut	89.7
Sweet Almonds	87.3
Peanut	79.6
Cocoanut	50.5
Sirup	75.4
Honey	79.4
Vegetables.	
Carrot	11.7
Winter Cabbage	18.1
Red Cabbage	8.7
White "	8.2
Spinach	10.5
Celery	14.5
Head Lettuce	4.9
Potato	24.4
White Turnip	5.4
Beet	11.5
Sugar Beet	16.8
Parsnip	10.
Sweet Potato	27.2
Cucumber	4.
Asparagus	5.3
Cauliflower	8.2
Melon	8.2
Squash	8.5
Onion	13.3
Pumpkin	8.5
Tomato	6.8

	Per cent.
Peas, Green, Garden	19.7
Small	83.3
African	90.2
Green Shelled	84.1
Beans, field	78.5
French or Kidney	85.2
White	82.2
Lima	87.
String Beans	10.1
Lentils	83.8
German	74.7
Milk and Butter.	
Cow's milk	14.
Cream	34.
Swedish Butter	86.2
French "	87.4
Cheese, Stilton	68.
Skimmed Milk	10.4
Buttermilk	9.2
Milk of Cow-tree	40.2
Meats.	
Lean Beef	28.
Lean Mutton	28.
Veal	37.
Pork	61.
Poultry	26.
White Fish	22.
Salmon	23.
Entire Egg	26.
White of Egg	22.
Yolk of Egg	48.

—"*Science in the Kitchen.*"

PREVENTIVE WORK IN THE PROMOTION OF PURITY.

BY MRS. E. E. KELLOGG.

THE more we study the subject, the firmer grows the conviction that one of the strongest allies for the promotion of purity and the rooting out of evil lies in the home training of the child. Few other influences have such power to keep an individual in the paths of rectitude as that of right home training. It gives texture to the whole warp and woof of character.

Psycologists tell us that the mind receives more impressions in the first seven than in all the after years of life. This susceptible formative period belongs especially to the parents and the home. We say parents, for while the mother's work is rightly esteemed the supremest work for the child, the true home training involves the father's influence and co-operation. In these impressionable years the seeds of both good and evil take deeper root in the character, because the child is lacking in the power of resistance which comes with later years.

Herein lies the parents' wondrous opportunity so to preoccupy the soil with good that there will be no room for evil; so to nourish and cultivate right inclinations that wrong ones will die out. Even inherited tendencies may be overcome or greatly modified by careful home training. If a child has inherited a tendency to some disease, the watchful physician directs his treatment toward building him up where he most needs it, by supplying him with such conditions as will strengthen the weak points. Other perverse tendencies, inherited or acquired, must be treated in like manner by developing the strength within so that it shall dominate over weakness; by inspiring such a love for that which is pure and good that evil will be distasteful; by so accustoming the child to a pure moral atmosphere that he cannot breathe freely in any other. To thus intercept temptation for their children and to build up the wall within at the points where it is weakest becomes to parents a perpetual, every-day problem. The evil influences with which they have to cope come into their children's lives with muffled tread, often so wholly unsuspected by the unobservant parent that they are full grown before they are recognized. Yet the change from virtue to vice is never a sudden one. A long preparatory process goes on in the heart before the individual commits open sin. How clearly with this thought do we face the great, special need of parenthood; that of learning to know their children, of studying to understand their real inward life,— their tastes and tendencies; their aspirations and weaknesses,— just as they seek to know their bodily necessities, that they may recognize the leadings toward vice and check them at the outset. Only by keeping the closest intimacy with their children, by being in full sympathy with them, in other words, "living with them," is this possible.

The wise parent who establishes such an intimate fellowship with his children finds in it a wall of adamant against the influence of vice. Such a relation, however, requires much painstaking effort and self-sacrifice on the part of the parent to perpetuate, for it must be a continuous, not a spasmodic, relation; and just here lies the secret of so many shadowed homes, so many parental failures, in the unwillingness of the parents to sacrifice the love of personal ease and enjoyment, to set aside the so-called demands of society, the engrossments of business,

or other of their own selfish ends, for the children.

It is so much easier to turn the little ones out of doors to hunt up their own amusement than to take the time to direct and instruct them; so much less trouble to allow them to select their own companions than to accord them one's own personal companionship, that a dangerously large proportion of parents share the feelings and sentiments of a mother who when asked by a friend concerning the welfare of her five little ones, replied: "Oh, I am so thankful to have them out of the way that I do not trouble myself to find out where they are so long as they are well, and come for their meals at the proper time, and are in season to go to bed at night." One shudders to think of the risks such mothers are taking and the opportunities they are losing, when it is remembered that before the child is ten years old, parents will have done half they will ever be able to do toward the formation of his character.

Let the early years thus slip silently by unimproved, and the whole after period of the child's life must needs be spent in endeavors to uproot the tares and weeds the enemy will not fail to sow while parents are asleep to duty. It is far easier and safer to prevent evil than to correct it.

The preventive work to be done for the child must be twofold. To guard the outer approaches of character, seeking immunity from vice by efforts to keep it out of sight and knowledge, is not sufficient, for, as Emerson says, there is no wall which love can build around its object strong enough and high enough to keep out temptation. The wall must be within, else sooner or later the citadel yields to the enemy. Right desires must be created, right habits established, the mind must be filled with that which is pure and lovely. The time likewise must be filled with that which is good and useful. Something will fill the time; if it be not good, it will be evil. There is no surer moral safeguard than wholesome occupation of the mind and body. Many a prodigal daughter who walks our streets to-day with bold, brazen face would walk with the honest, steadfast gaze and tread that comes from victory if, when the crucial time came, there had been one thing she had been trained to do well by which she could have earned a livelihood. Active hands and minds will not find time to heed every temptation which the enemy suggests; but idle hands and brains are the tempter's ready tools. Much of the danger which threatens the youth of both sexes lies in the lack of training in industry. Idleness is a plain invitation to vice.

If properly alternated with play, work will become as truly recreative as play itself. Little by little it prepares the growing child for the practical duties of life, and brings him in contact with them as fast as he is qualified to discharge them. Work comes then to be welcomed as a blessing instead of a hardship, and is made honorable by being honored by those who do it. Looking along the vista of his future years, can we not see what an array of demoralizing influences such a training in industry would forestall?

Both boys and girls should be trained in domestic work; both boys and girls should be taught the use of tools, gardening, and similar occupations. Infuse into the children's minds the thought that no honest work is degrading; that it is neither unmanly to wash dishes or darn stockings nor unwomanly to drive a nail or weed the garden; that the ability to do the work and the need of its being done is the criterion by which to determine whether or not they shall do it. Make the distinction of sex as small as possible in the home training of boys and girls, and there will be less feeling of inequality

to contend with as they advance in years.

Another of the many links in the chain of home influences which are helps or hindrances to a life of purity is the habitual diet of the child. Nothing tends more effectively to keep the animal impulses in abeyance than simple, non-stimulating food.

A clergyman who had thought much upon these subjects tells of a father who was sorely tried over his little son. The child was so obstinate and wayward that the father sought counsel of his minister. He asked what he should do with the boy. He had tried everything he could think of,— moral suasion and entreaties, — and he was about to resort to force. But nothing seemed to reach the case; the child was incorrigible. The good clergyman had evidently met such cases before. He asked the father how he fed the child; and he learned that its dietary was of a kind that would naturally overheat the blood and inflame the passions. He prescribed an entire change in the boy's food; instead of meats and gravies, rich pastries, and the like, he substituted plain bread and milk, with wholesome fruits.

A short time afterward the clergyman called, and asked as to the results. The father informed him that his son seemed entirely changed in his disposition; from being irritable he had become docile. The congestion at the base of the brain had been relieved, and the intense nervous irritability no longer existed. To the father this sudden transformation seemed almost miraculous. To the minister it was all very plain; he had removed the cause, and the effect no longer followed.

Children allowed to eat at all hours, to partake of unwholesome and stimulating foods, to overeat, to eat without need simply because they enjoy the taste, being thus taught self-gratification rather than self-control, are almost hopelessly placed under the dominion of their lower natures. The child should be taught to think of food as material for the building up of the body, and not as a mere delight of the palate. The sense of taste was provided by the Creator not for mere animal enjoyment, but to enable us to distinguish between wholesome and unwholesome foods and as an aid to good digestion. When it is divorced from its natural and physiological purpose, it becomes a source of mischief.

Purity of heart is a condition quite incompatible with pleasuring of the appetite. This is no new thought. The wife of Pythagoras, 500 B. C., wrote to a friend, "The first duty of a good mother is not so much to give passing happy feelings, as to lead the child to what lays the foundations for constant happiness by virtue,— moderating and conquering, from the beginning, sensuous desires. Children from first babyhood allowed unrestricted sensuous enjoyments will become unable to resist the temptations of lower pleasures so great in after life. Your duty is to educate your children by such means that their natural gifts are not turned in the wrong direction, which will happen when the desire for empty pleasure gains the upper hand in their souls and bodies." In the past as well as the present we find purity of character everywhere associated with simplicity in habits of life. Depraved appetites are often inherited, but they are as often created through lack of proper training.

Over all the habits of the child's everyday life,— his reading, recreations, dress, amusements, and companions,— parents must set a vigilant watch, if they would barricade the countless avenues that lead down to destruction and death; while at the same time they themselves must supply the conditions for the child's

sure and continuous upward growth. The trite old saying, "Keep yourself from opportunities, and God will keep you from sin," might well be transposed for parents: Keep the child from opportunities, and God will aid you to keep him from sin.

When viewed in the light of preventive work, what a comprehensive and far-reaching work lies before the parents of to-day! How few parents know how to accomplish it! As has been aptly said: "They grope blindly among the complex mind and heart machinery under their charge; touching a spring here and a spring there with careless and uncertain hand; finding often too late that they have undertaken to control the most powerful of created forces — the human will, passions, and propensities — not having the secret of power. Love they have, but love without enlightenment is a mighty force working at random, marring where it would make, destroying where it would save." One of the greatest needs of the world to-day is parental enlightenment.

HOW PARENTS SOMETIMES TEACH DISHONESTY.

IT is greatly to be deplored that some parents show such a want of principle in little things. A boy came into his mother's room from school, and held up a pocket-knife. "See, mother, I traded an old, broken pencil with a boy to-day, and got a great bargain; it 's almost brand-new. The pencil was not good, but the boy was willing to trade because it had such a pretty handle." The boy chuckled with delight at the thought of his shrewd bargain. The mother was busily sewing, and just glanced up at the knife her son held in his hand. Then the boy threw down his books, and took up his ball. As he passed out, he said, "He was a little chap, and did n't know how much more the knife is worth than the pencil, or he would n't have made such a bargain."

The mother heard the last remark, but did not say anything. If that mother had been a woman of high principle, she would have insisted on his returning the knife, which was of so much greater value than the pencil, and have made him understand that the trade had been a dishonest one.

Helen had not done her examples, and it was only a half-hour before school-time. She could not possibly do them in that time; so she said to a friend, "Let me copy my examples from your paper, so I can hand them in to the teacher, and not have to stay in after school." The obliging schoolmate allowed Helen to copy her examples. Helen's mother knew of the deceit her daughter was practising on her teacher, but let it pass unnoticed. Helen was marked perfect in her arithmetic lesson when she did not merit it.

A father, in the presence of his little son, hired a boy to shovel off the snow in front of the house. When the job was done, the father had nothing less than a five-dollar bill, and of course the boy could not change it. "Come around to-night when I get home, and I will pay you," said the business man. The boy came, and waited, but something kept the man down-town so late that he had to go home without it. The next morning the little son said, "Father, that snow-boy came for his money last night, and waited and waited." "I forgot all about that boy," the father said carelessly. It was one week before the boy got his money. Would the son of such a father learn promptness from his example in paying

the laborer, who is worthy of his hire?

"Mother is sorry to trouble you, but she needs the money for the washing so much. You see Johnnie is sick, and ——" When Mrs. Baxter heard that pathetic child voice in her ear, she exclaimed, "O yes, I entirely forgot that I promised to send my little girl with that money." When the washerwoman's child had gone, her little girl said, "You know, mama, I asked you twice to let me go to Mrs. Brady's with the money, and you said, 'There is no hurry about it.'"

O parents, how blind you are! Do you not know that in these *little* things you are teaching your children to be dishonest in great things, and thereby you may be educating them for the penitentiary? Remember that a solid, honest, upright character will be worth more to your child than riches or the education of the intellect. The Bible says, "He that is faithful in that which is *least* is faithful also in much: and he that is unjust in the *least* is unjust also in much."—*Joanna P. Moore, in the New Crusade.*

THE WOMAN'S MOLOCH.

In spite of the assertions to the contrary which appear now and then in the papers, it must seem to most of us as if the tyranny of fashion became more galling year by year. It is humiliating to a thoughtful woman to see how we expand or contract, lengthen or shorten, trim or leave bare, at the behest of vulgar and calculating tradespeople, whose only object is to sell their wares and stimulate manufactures.

Indeed, it is alleged by these people, whose syndicates are said to control the great Parisian and English houses, that for this very reason we should endure these constant, wearing, and expensive vicissitudes. There is a certain show of plausibility in this argument, but, upon reflection, is there not something worse than folly in insisting that human beings, wrestling with the life-and-death problems of a complex civilization, should yield up a large part of their costly time and strength to altering the style of their clothes in order to stimulate manufactures? Are there not more important uses to which those hours of hard labor and the vitality of those beating hearts can be put?

A modern novelist makes one of her characters say, "Chinese women stop binding their feet when they are shown the folly of it, but our women do not stop binding their bodies, even when convinced of its wickedness."

We are told that nervous exhaustion becomes yearly more common among our women. Who can wonder when one looks at the size of their waists? With their circulation seriously interfered with, their breathing power curtailed, their digestive apparatus hampered, and in very many cases their internal organs laboring to do their work when out of place or actually inverted; no wonder that women's nerves, which depend for their life and health upon circulation, breathing, digestion, and proper organic activity,— no wonder that the nerves give out!

A middle-aged gentleman and his wife stood side by side in a street-car recently, and an observer could not help contrasting their figures. Both were well, even elegantly, clothed, and had an air of eminent respectability. Their weight must have been about the same; but while the husband's smooth waistcoat rounded out comfortably over his substantial person, his wife's figure, enormously developed above and below the waist line, suffered just there a cruelly

deep indentation, though she naturally needed just as much room there for her digestion as her husband had. The spectator, comparing them, endured a feeling of positive discomfort, as the inevitable contrast flashed forth, between the freedom of his internal economy and the restriction of hers. Poor woman! How much better she would have felt, and how much more efficient she might have been, if she had only possessed that comfortable extra space!

"I don't dare to leave off my corsets for a single day!" sighed a famous woman. "I know that if I once taste the delights of liberty, I can never be reconciled again to my bonds, — and how I should look without them!"

It really seems that if fashion decreed that our women should be trimmed, like lawn spruces, into the shape of the letter S, they would submit without a murmur. Or if it should be accounted fair by Mrs. Grundy that an orifice should be created between the sternum and the spine, through which ribbons, cords and tassels, and such delectable decorations could flutter, women would undergo smilingly the necessary operation, and say that it did n't hurt a bit, and how artistic the effect was, and how queer that such a sweet and novel way of making woman beautiful had n't been thought of before!

What are brains and hearts for, if not to control such matters? How do we dare to become mothers, or to bring up our daughters with an expectation of becoming mothers, and yet give them such artificial, such blasphemous, figures as fashionable women now create for themselves? What are our schools and colleges for? And how can we abet these things and say our prayers daily to our outraged Maker?

But we shall doubtless go on for a hundred years to come, since our civilization has developed with this Chinese eccentricity in specialization, and with all of China's iron rigor, we shall doubtless go on wearing bunches on our backs, or removing them; dragging our gowns through the dust or shortening them; dilating or shrinking, as fashion decrees; wasting priceless time in silly attempts to array ourselves quite differently this year from the ways of last year, — and frittering away our souls in the process day by day.

O, for some modification of the flowing robes of the Orient, which shall conceal all but the mere outlines of our figures, and shall remain substantially the same from year to year, to be used as long as cleanliness and tidiness will allow! In this woman's land, where our sex have a light and a liberty unknown to our Eastern sisters, we yet lack one thing that they possess, — the power to live their own internal, physical lives. If we could only rise up and claim this right with all that it implies, what children might we rear! What problems in light, electricity, finance, government, physics, art, astronomy, might we not assist our brothers in solving, with the force thus set free! — *Kate Upson Clark, in the Housewife.*

MUCH must be borne that it is hard to bear;
Much must be given away that it were sweet to keep;
God help us all who need indeed his help,
And yet I know the Shepherd loves his sheep.

—*Owen Meredith.*

"SHE always does things the easiest way," said Mrs. Heard, of her sister, Mrs. Jayne. "She sits down and reads in the middle of the forenoon, and one day last week I went over there, and found her in bed reading a story-book, while Tom and Nell were getting dinner."

"Yes," replied Mrs. Grant, to whom Mrs. Heard made this criticism, "I admit that Helen takes a little rest a great many times a day, but it is not because she is lazy, it is because she is wise. I admit, too, that she now and then spends a day in bed. I surprised her in bed one day. The two babies, as she calls them, Dot and Daisy, were with her, and they were all making merry over a long string of fairy stories."

"Well, I don't approve of such doings," said Mrs. Heard. "Yet you, like all the rest, stand up for her and apologize for her. I believe you think she is a better woman than I am, while she just gives way to her feelings, and I sacrifice myself, year in and year out, for my husband and children. My boys have said more than once that they wished I would keep dressed up like Aunt Nell, and that Aunt Nell looked ever so much younger than mother, but I never have set them to washing dishes so that I could lie abed."

Here the speaker's voice trembled a little, and the tears filled her eyes.

"Our children think very little of our sacrifices," replied Mrs. Grant, "but a great deal of our buoyancy, our smiles, our good looks, our power of making them happy. By and by, when they are fathers and mothers, they will remember how hard we worked for them, but now what they delight in is sunshine, and we must give it to them. Helen looks far ahead, and determined not to be a cross, nervous, exhausted wife and mother.

"The evening of the very day that I saw her in bed, I saw her again at the tea-table, prettily dressed, all freshness and smiles and helpfulness. I saw her tired husband brighten in her presence, and the children subdue themselves to please her. She knows just how far she can go without losing more nervous energy than she can afford to lose, and at the limit that she sets herself, she stops.

"Do you remember how surprised we all were at her endurance when Dot was so ill? She told me that one of her strongest motives for being careful of herself was that she might have reserve strength for unforeseen emergencies. If she had had less strength for watching and nursing, she would undoubtedly have lost her baby.

"To cook for our children and make their garments, to keep the house neat, and do in due time the hundred tasks of a housekeeper, is well; but if there must be loss and waste and neglect, let the physical part of the home suffer rather than the spiritual part. It is one thing to be a good housekeeper — another thing to be a good home-maker."

"I know that Helen is always good-natured," admitted Mrs. Heard, "and her husband and children think there is nobody in the world like her. There 's more love in her house than in any other house in the neighborhood."

"And smaller bills for drugs and doctors," said Mrs. Grant.

"Well," said Mrs. Heard, "Helen never told me that she planned to keep rested, — I have always thought that she was just slack, and I have told her so."

"Because you have thought so and have said so," replied the mutual friend, "you have lost Helen's confidence; we are not apt to tell our notions to people who are unsympathetic. I know that your sister grieves over the fact that you

work so hard, and are wearing out so fast. But she can't talk to you on the subject because you repel her by your unbelief."

"She does try to reason with me sometimes," said Mrs. Heard. "She tried hard to get me to let the plain things go unironed last week, and go with her Tuesday for a day in the woods — take the children and get wild flowers, make herbariums, and all that sort of thing. But I told her I never yet had put away my sheets and night-gowns and towels rough dry, and I was too old to begin. She was quite put out, but I could n't help it."

As Mrs. Heard finished speaking, she put her hand to her cheek.

"My neuralgia is coming on again," she said. "I shall have to see the doctor. I have put off consulting him, because I hate to spend so much for doctor's bills. John said when the last one came in that he thought it was outrageous. I just broke down and cried, for it does seem hard to work from morning till night, and then have your husband begrudge you a little medicine when you are sick. But if there 's anything my husband hates, its tears. So I try to bear my troubles in silence."

"Better plan your life so as to be free from troubles, or so as to live above them," thought Mrs. Grant, as she took her leave of the "good housekeeper," reflecting on the difference between the two sisters.— *Mary F. Butts, in the Housewife.*

Too Many Things.

Elizabeth Elliot, in the *Outlook*, makes a suggestion which, if heeded, would certainly help to simplify the question of how we are to find time for those pleasures and duties which women well know to be the better things of life, but for which too many fail to find time, on account of the multiplicity of home cares: —

"We cannot deny to ourselves that our lives might be immensely simplified if we could devise some way of reducing the number of things which take so much time and strength to provide and to care for. When a woman first goes to housekeeping, she has often a perfect frenzy of accumulation. There are so many things needed, and each addition is such a pleasure, that sometimes, before she realizes it, she finds that she has not left herself room to live in the house. Her bureau is so covered with silver mirrors, brushes, pin-trays, atomizers, and manicuring tools that she looks in vain for a place to lay her collar when she takes it off. Her writing-desk is so elaborately equipped with ornamental lamps, pen-trays, ink-bottles, letter-scales, and sealing apparatus that she finds with difficulty room enough to write a note. Her table is so decorated with its elaborate center-cloth, its flowers, its silver candlesticks with their dainty shades, the various intricacies of silver forks and spoons for every conceivable purpose, and different china for every course, that it is only with care that a place can be found for the meat and potatoes. There is a hall table with a pretty litter of whisk-broom and writing-pad and pencil and card-tray, but the man of the house cannot find a place to put his hat and overcoat. There are so many ornaments in the drawing-room that not one of them has any distinct decorative value, and it takes so many odd tables to hold them all that the family have to move about with great caution. The musician of the household has such stacks of music that she never can find what she wants; the children have so many toys that they do not care for any of them; the books accumulate so in the library that no one knows where anything is;

and the bed-rooms are so full of easy chairs and divans and chiffoniers that folding beds have to be bought to make room for them all.

"But, if a woman be wise, the time comes when she begins to simplify. She buys only what is really needed; she stops putting things away, thinking she may want them sometime; she has regular times of going through rooms and closets to weed out superfluities and send them off to the many places where there are no superfluities and scant necessities. She plans how to do without rather than how to accumulate; she tries to arrange her rooms so that the eye shall rest upon some refreshing spaces.

"Simplify all we may, life is still complicated enough. But everything eliminated from the list of necessities means to the busy woman that much less to think about and care for; and that means that much more time for the real things of life, for thought and culture, for love and helpfulness, and charity that is not superficial and hurried, and for the clear vision that sees life in its true proportions."

The Decline of Old-Fashioned Virtues.

Mrs. Martha Evarts Holden wrote some beautiful thoughts during her sad life. We find the following in a compilation made from her writings since her death, which occurred in January, 1896:—

"I am not an old woman, and yet I have lived long enough to see the almost utter decadence of some old-fashioned virtues. Take politeness, for instance — simple, old-fashioned politeness, that sprung from the heart like a rose from the root. How little we see of it nowadays! We see a great deal of what you call company manners, learned from a book of etiquette, perhaps; but the kindly spirit that seeks to make things pleasant for the humblest stranger, as well as the guest who comes in the van of a trumpeting herald, is growing rarer each year. What if it does cost a little trouble to answer a question, or drop your task to direct a stranger? what is the use of being in the world at all, if not to lend a helping hand where we can, and make folks happy? The courtesy that is only shown to people we know and to people who can respond perhaps in kind, is a spurious courtesy, as different from old-fashioned politeness as a pink made of muslin to a sweet carnation that grows in the garden, and woos the bees."

PARENTS often feel in doubt as to how to educate their children, but of one thing they may be sure, and that is, that every one must in the main educate himself, no matter how many or how capable his teachers may be. Herbert Spencer puts it correctly when he says: "In education the process of self-development should be encouraged to the fullest extent. Children should be led to make their own investigations and to draw their own inferences. They should be told as little as possible, and induced to discover as much as possible. That humanity has progressed solely by self-instruction, and that to achieve the best results each mind must progress somewhat after the same fashion, is continually proved by the marked success of self-made men.— *The Journal of Hygiene.*

Our Task.

WHETHER we climb, whether we plod,
Space for one task the scant years lend —
To choose some path that leads to God,
And keep it to the end.

—*Lizette Woodworth Reese.*

EDITORIAL.

NUTS FOR DIABETICS.

In view of the high nutrient value of nuts, it is astonishing that they have heretofore been so little employed as an article of food by civilized nations. The ancient Arcadians subsisted chiefly upon chestnuts, as do the Italian peasants of Lombardy at the present time. The Indians of California have from time remote subsisted chiefly upon pine-nuts, a product of the gray forests of pine which cover the foothills of the Coast Range and Sierra Madre Mountains. The cocoanut furnishes food for vast multitudes of people in the islands of the Pacific and in all tropical countries.

These facts alone are sufficient to show that the nut is a complete nutrient, and that it is adapted to human sustenance. The hickory-nut, the walnut, and the butternut, as well as other native species, are highly nutritious foods, and an economical source of heat- and force-producing material. An incalculable amount of good would result to future generations if the State authorities of Michigan, Ohio, Wisconsin, Pennsylvania, New York, and other forest-covered States would, by law, require the replacing of the great forests which are being exterminated by the lumbering industry, with the walnut, the hickory-nut, and other nut-bearing trees. These trees, being natives to the soil, will grow without care, and in a few years would produce an enormous crop of valuable foodstuff, besides the choicest kind of timber, if necessity should ever require their use for this purpose.

The value of nuts in medical dietetics seems to have been almost entirely overlooked, probably from the fact that in their natural condition they are somewhat difficult of digestion, and so have been altogether excluded from diet lists. Raw nuts are certainly indigestible, but nuts may be prepared in such a way as to be not only the most highly nutritious of all foods, but the most easily digestible. Even peanuts, which are perhaps the most refractory to digestion of all nuts, may be so prepared as to be acceptable to the most delicate and sensitive stomach.

The especial characteristics of nuts, from a dietetic standpoint, are the almost entire absence of starch and allied substances, and an abundance of proteids and fats; these are their especial characteristics. This fact is well shown by the accompanying table:—

Name.	Proteids.	tarch.	Fats.	Nutriment.
Walnut	15.8	13	57.4	88.2
Hazelnut	17.4	7.2	62.6	89.7
Sweet Almonds	23.5	7.8	53	87.3
Peanuts	28.3	1.8	46.	79.6
Cocoanut	5.6		35.	50.5

From this table it will be seen that the almond and the peanut contain a considerably larger proportion of proteids than beefsteak. The amount of proteids in a pound of peanuts is, in fact, fifty per cent. more than that in a pound of beefsteak; and the amount of fat is greater than that found in any other class of foods. In the almond and the peanut, fat is present in the proportion of about fifty per cent., while in some other nuts it amounts to three fifths or more. The total nutritive value of nuts is, in almost every instance, more than three times that of the best beefsteak. From this fact it is apparent that a pound of nuts at forty-five cents is as cheap as a pound of beef at fifteen cents, looking at the matter purely from the standpoint of economy.

But economy is by no means the chief question to be considered in the treatment of the majority of cases of diabetes. What the patient wants and needs, and what he is willing to obtain at almost any price, is a food which he can safely eat which will

maintain his strength and energy, and at the same time successfully combat the wasting tendencies of his disease. Cereals and sweet fruits must be almost entirely interdicted because of the increase of the elimination of sugar resulting from their use.

Recent studies of the dietetics of diabetes have clearly demonstrated the great danger involved in the use of an exclusive meat diet. The rapid tissue disintegration taking place in severe cases of diabetes results in flooding the system with waste matters, which are, of course, toxic in character. When to these are added the toxic substances contained in the flesh of animals under the best conditions, together with the ptomains resulting from the decomposition which always takes place to a greater or less extent in flesh food before it is eaten, and still further by the urea and other excrementitious products resulting from the excess of nitrogenous material contained in the system when meat is largely used, it becomes apparent that the diabetic who makes use of an exclusive meat diet or a diet consisting largely of flesh foods, is in a state of chronic auto-intoxication. Such a person is constantly on the verge of diabetic coma; if he escapes, it is simply because his liver and kidneys are still able to do a sufficient amount of work in the destruction and elimination of poisons to save his life; but sooner or later he will certainly reach a point at which a failure of these important organs to do the excessive amount of work demanded of them will result in the accumulation of toxic substances to such a degree as to produce the universal poisoning which is so graphically pictured in diabetic coma.

In view of these things it is very singular indeed that the great value of nuts in diabetes has thus far apparently escaped attention. The writer has for many years made use of nuts in cases of this sort, and has found that even in their ordinary raw state, they are highly useful as a means of sustaining the vital forces of the patient, and serving as a complete substitute for both farinaceous food-stuffs and flesh foods of all sorts.

Some extensive experiments have recently been made in Germany for the purpose of determining the food value of the peanut. The material used consists of what is known as "oil-cake," a residue of the oil industry. Some thousands of tons of peanuts are annually imported to Germany for the purpose of making salad oil, a large portion of which is sold in this country as olive-oil. There are more than twenty-five large factories engaged in this business in different parts of Germany. The large amount of proteids and the considerable residue of fat contained in this oil-cake have led to many experiments for the purpose of utilizing it as a food. The German government has taken great interest in these experiments, having in mind the utilization of the peanut oil-cake in the making of a cheap military ration. It has been found extremely nourishing, and admirably adapted for use in soups and similar preparations. Dr. Führbringer, in a lecture reported in the Berlin *Clinical Weekly*, especially recommended this nut preparation for diabetes, also for Bright's disease and other chronic kidney disorders. The only objection found to this food was its bitter and astringent taste, and the very pronounced flavor of rancid butter. This unpleasant taste is doubtless due to the slight decomposition of fatty matters and to other imperfections in the process of manufacture, as we have found it possible to obtain a product from peanuts as well as other nuts which is entirely free from this objectionable flavor.

Within the last few years the writer has made many experiments with nut products of various sorts in diabetes and other disorders, and has found the following preparations extremely valuable: —

1. *Nuttose.*— This is a thoroughly cooked and sterilized product of nuts, chiefly peanuts. Nuttose is made into the form of a cheesy mass which readily dissolves in the digestive fluids, the nuts having been first completely disintegrated and then thoroughly cooked. It contains about the same amount of proteids as beefsteak, and, in addition, between twenty-five and thirty per cent. of easily digestible nut fat in a state of natural emulsion.

2. *Nut Meals of Various Sorts.*— These are chiefly almond meal and nut meal, the latter consisting of an admixture of nuts. These meals are made from nuts which have been thoroughly prepared by a careful assortment and perfect blanching. The almond meal is uncooked. The nut meal has been very thoroughly cooked, and so is ready for immediate use in a variety of ways : for example, added to a small proportion of flour it may be made into cakes. By cooking for a few moments it can be made into a delicious soup, or with a small quantity of water, an exceedingly palatable purée is produced. It may be used for shortening pie-crust, cakes, etc., producing delicate and palatable combinations.

3. *A Sterilized Nut Butter.*— This preparation consists of a combination of nuts which have been first thoroughly blanched, then completely disintegrated by conversion into a paste, and finally cooked at a temperature which secures complete sterilization. This product is an excellent substitute for butter and shortening of all kinds. When mixed with water, it makes a very delicious nut cream or milk, and is readily assimilable.

Führbringer's examination of the fecal matters of persons fed upon nuts shows that roasted peanuts in their ordinary form are practically indigestible, coarse particles being found in about the same condition as when swallowed. When reduced to a paste, roasted peanuts are much more digestible, but for perfect digestibility, the nut needs to be subjected to long cooking at a lower temperature than that employed for roasting.

Luedtke has shown that the proteids of the peanut are much more easily digestible than those of beans, peas, lentils, etc. This is due to the fact that in the peanut the proteid and the starch granules are mixed together in about equal quantities, while in beans and similar seeds the large granules of starch are surrounded by many proteid granules embedded in a net of protoplasm. In cooking, these albuminoid elements surround the starch en masse, thus increasing the work of the gastric juice and also rendering the starch difficult of access. This fact doubtless explains the difficulty which many dyspeptics have in digesting beans and other legumes. The disturbing symptom generally complained of is flatulence, which is evidently the result of fermentation of the starch contained within its investing envelope of coagulated albumin. In the peanut, the proteids being formed of fine granules, in mixing with starch granules, both the starch and the proteid particles are readily accessible,— one by the saliva and the other by the gastric juice,— and hence adjusted properly.

THE RATIONAL TREATMENT OF NERVOUS HEADACHE.

Some months ago the writer published a paper relating to the rational treatment of migraine, in which he announced the belief that this disorder is a sympathetic nervous disease, and that the direct cause is an irritation of the abdominal sympathetic, either by the strain of the prolapsed viscera, or ptomains absorbed from the stomach or other portions of the alimentary canal. The treatment recommended consisted chiefly of lavage and antiseptic dietary, support of the prolapsed organs by a suitable abdominal supporter, abdominal massage for the purpose of replacing prolapsed viscera, manual and mechanical Swedish movements, general massage, hydrotherapy, electricity, galvanic and sinusoidal currents.

An Eastern medical journal reviewed the paper, denouncing our theory respecting the pathology of the disease, and intimating that we had evidently had little or no experience with this malady, also hinting that no one knew anything about it. We are glad to note, however, that our esteemed contemporary had a word of commendation to say in behalf of the methods of treatment proposed. The writer has no disposition to set himself up as a medical savant nor to claim

perfection for any of his theories ; nevertheless, he still believes migraine to be essentially a disease of the sympathetic nervous system, and that the leading exciting causes are those which were pointed out in the paper referred to.

A number of prominent French observers have called attention to the relation between migraine and epilepsy, and Haig has lately pointed out the fact that migraine is but the forerunner of Bright's disease, being an indication of a systemic condition which leads to such tissue degenerations as may result in Bright's disease and other disorders of degeneration.

In view of these facts, it is clearly evident that to attempt to cure migraine by means of anodynes or drugs of any kind, is in the highest degree irrational. The disease is simply an indication of a systemic condition which Bouchard has denominated "auto-intoxication," the cause of which must be sought out and removed. To simply cover up the symptom by the addition of a toxic agent of some sort is only to put the warning sentinel to sleep. The writer believes that every case of migraine may be cured by the adoption of proper measures. There is no formula for a case of this sort, but by persevering effort in the employment of rational measures, a cure may, we believe, be effected in every case. At any rate, no case should be considered incurable without a thorough trial of these rational measures.

STARVATION STARING US IN THE FACE.

General Brialmont, an eminent Belgian statistician, has recently published some facts, which, according to his view, demonstrate to a certainty that in less than four hundred years the world's population will have increased to such proportions that the food supplies will fail, and the race will become extinct from starvation. Numerous other statisticians have pointed out the same fact. The problem is not a very complicated one. Knowing the rate at which the population is increasing, and the amount of land capable of producing food, it is only necessary to determine the amount of land required to support a single individual to arrive quickly at a definite and correct conclusion respecting the length of time which must elapse before the population will be too large for the earth.

According to General Brialmont, the population of the globe will reach in four hundred years, thirty millions, if the ratio of increase remains the same as at the present time. The total area of the earth's surface is a little less than two hundred million square miles, of which vast extent of territory, however, not quite five million acres can be made to produce food by cultivation. General Brialmont estimates that eight tenths of an acre is required to nourish each person. According to this, all the tillable land of the earth would support but six billion inhabitants, a population which, according to general statistics, will be reached in one hundred and seventy-six years.

These figures are exceedingly interesting, and ought to set a good many people to thinking. It is true that we do not need to be personally concerned in relation to the general food supply of the world, as there will unquestionably be enough to supply our individual needs, provided we are able to get hold of it; but we ought, nevertheless, to be interested in the consideration of the question, as one which bears upon the future of the race; and a question which we ought especially to consider is whether or not we are making an economical use of our food resources.

De Lesseps, the celebrated French engineer who designed and constructed the Suez Canal, at one time gave considerable attention to this problem, and estimated that at the present time we are wasting a very large share of the labor and money which we expend upon food supplies. He called attention to the fact that the body can be much more perfectly supported by vegetable than by animal food, citing his experience in the construction of the Suez Canal, in which he

observed that the Arab workmen, who subsisted upon barley and dates, taken in very moderate quantities, were able to accomplish much more work than beef-fed Englishmen, and were, at the same time, not subject to the various destructive maladies which preyed upon the Englishmen placed under the same conditions. De Lesseps calculated that forty times as much land is required to support a man upon a meat diet as upon a diet wholly composed of the natural products of the earth, such as fruits and grains.

A moment's consideration of the matter will readily show that much less than four fifths of an acre of land will furnish nutriment sufficient to maintain an adult man or woman, provided it is taken at first hand. For example, if an acre of land produces twenty bushels of wheat (a small average for wheat-producing countries) sixteen bushels can be derived from four fifths of an acre. Sixteen bushels of wheat equals 960 pounds. Properly prepared, a pound of wheat will furnish a day's rations for a laboring man. It thus appears that four fifths of an acre of land devoted to the production of wheat will support, not a single person only, but on an average at least three persons. The same amount of land devoted to the production of corn would support perhaps twice as many persons; and there are various other food products, such as the banana, and nuts of various kinds, of which the same area of land may produce food-stuffs sufficient to support from ten to twenty persons. From this it appears that by adopting a proper dietary, the race may postpone the date of extinction from starvation four or five thousand years at least, before the expiration of which time it is more than probable that something will have happened so to change the present order of things as to bring the race back to a more normal and rational state of being, in which it is reasonable to suppose that man might expect to live on prosperously and happily for an indefinite length of time.

FOOTBALL BARBARITIES.

THE recent death of a member of the University of Georgia eleven in a game with the University of Virginia team has so far aroused the sensibilities of the Georgia State Legislature as to lead that body to pass a bill abolishing the game of football in that State. It is interesting to note that this bill was passed with only eight dissenting votes. The citizens of Georgia may well feel proud of the fact that civilization has advanced in their State at least one step ahead of the point which has been reached by any other State in the Union, at least so far as these States are represented by their governing bodies. The action of Georgia ought certainly to make a profound impression upon the public mind.

Within a short time there have been reported eleven deaths from football fighting. The fact that there has been a larger number of deaths from horseback riding, bicycling, boating, etc., which is offered in defense of football playing by a prominent Eastern journal, has no particular weight when the vast number of persons who engage in these other forms of recreation is taken into consideration. A million or more persons are riding bicycles, whereas only a few hundred, or at least a very few thousand, engage in football playing.

A few college presidents propose to reform the game by leaving out of it all violence and brutality. We heartily commend this suggestion that the game be reformed; for when it is reformed, the public will lose interest in it, and it will die a natural death. The chief interest in football at the present time grows out of the fact that it is a violent game, and that there is a considerable amount of risk taken by the players. People go to a football game and pay anywhere from one to five dollars for the privilege, just as Mexicans go to a bull-fight, or the rough element scramble over one another in their anxiety to witness a pugilistic encounter.

As football is fought between professionals, of which the majority of college teams are composed, it is essentially the same thing as

pugilism, but on a larger scale. A few days ago, in a game played at New Britain, Conn., according to published accounts "a player of sixteen was repeatedly struck in the face and finally pounded into insensibility by opposing players of the age of twenty and upwards." It is stated that the referee made no attempt whatever to check the brutality. As the New York *Times* very pungently remarks, "The business is vulgar, and the most curious thing about it is that not even the faculties of the colleges seem to realize that fact." The old adage, "A man is known by the company he keeps," applies to football assemblages with absolute appropriateness. On the occasion of the recent Yale-Princeton fight, the New York *Voice* had a reporter on the ground, and in the next issue of the paper published the following in bold headlines:—

GREAT YALE-PRINCETON FOOTBALL GAME.

Inaugurated and Ended in a Monster Carouse. Two Nights and a Day of Maudlin Revelry.

New Haven's Saloons Jammed to Bursting with Drunken, Swearing Students, Shrieking out the Merits of the Teams, and Gambling on the Result.

Harlots Swarmed the Streets, Gathering in the Young Debauchees. The Calaboose Packed to its Full Capacity. Excise Laws Thrown to the Winds, and the City Wide Open.

The article describing the scenes at New Haven reads like a story of life in old Pompeii and Herculaneum before those cities were interred by a vomit of lava from Vesuvius. More than one thousand young men were reported drunk, and large numbers did not stop with drinking, but plunged into every form of beastly excess. Can anybody compute the evil that may be the outgrowth of such a time of maudlin revelry? Who can estimate the suffering, the sin, the shame? This is the manner in which men consider it appropriate to celebrate a football fight. The whole thing is brutal, demoralizing, and unworthy of a civilized age. Good people, clean people, sensible people, everywhere ought to raise their voices in condemnation of it.

HOW MUCH SHOULD A PERSON EAT?

THOUSANDS of times has the writer been asked this question. The only reply that can be made is, Eat just so much as the system needs and the digestive organs can digest. In general, an individual may take as much food as he can digest; but often there are conditions in which he cannot digest as much as he really needs. For instance, when an individual is called upon to exert all his energies of brain and muscle, to strain every nerve to its utmost, to compass a certain object of great importance or to cope with an emergency, he may be, for the time being, quite unable to digest sufficient food to make good the waste that must necessarily occur. He will lose flesh and strength under such circumstances; and often a failure of the appetite at such a crisis indicates the inability of the stomach to digest, on account of the deficient secretion of gastric juice. It is in this way that persons who are for a time called upon to make great exertions often break down their digestion. Thinking that they need abundance of nutriment, which is true, they eat as heartily as when required to perform only their ordinary work, not considering their diminished power to digest and appropriate food, and in a short time find their digestive organs unable to digest well even a small amount of food. There is little doubt that this is what causes many lawyers, physicians, and other professional men to break down.

If, when called upon to do a large amount of extra work, the person would lessen the quantity of food eaten, instead of increasing it, he would conserve his vital forces much

more than by pursuing the opposite course. When required by a press of business to do extra work, often working for several days in succession with very little sleep, the writer has been in the habit for many years of limiting the amount of food taken to not more than half the usual allowance, and sometime. to even a less quantity. The result has invariably been all that could be desired; since, although several pounds of flesh are often lost during an ordeal of this kind, when it is passed, and the usual routine of work is resumed, the digestive powers are intact, and able to digest the amount of food necessary for recuperation, so that a few days suffice to restore the usual weight, and without loss of either strength or time.

It is evident that the diet of each individual must be regulated in quantity according to his occupation. It must also be adapted to his age. A man engaged in severe physical labor, while he really requires less food, may be able to dispose of more food than one who labors with equal intensity in some mental pursuit. The body is wasted much more rapidly by vigorous brain labor than by physical exercise only. Indeed, it is asserted by our best authorities in physiology, that three hours of severe brain labor are equal in exhausting effects upon the system to ten hours of physical labor or muscular effort. It is evident, then, that a man who works his brain constantly for ten or twelve hours a day really needs more food to sustain his strength than a man who employs his muscles for the same length of time. But, as before remarked, the muscle laborer may be able to dispose of more food than the brain laborer, though he needs less, since his vital forces are not so completely exhausted by his work. In other words, the occupation of the muscle worker being less exhaustive than that of the brain worker, he can overeat with greater impunity than can the latter. Each should eat only the quantity actually required, if he would enjoy the maximum of health and vigor; but for the man whose vital energies are daily exhausted by mental effort, any excess in eating is certain to be most disastrous.

The amount of food required by an individual, as already intimated, varies at different periods of life, according to the degree of vital activity. In infancy and childhood, when the vital activities are at their highest degree of intensity, — when growth and development are to be maintained in addition to supporting the wastes of the system, — the demand for food is greater in proportion to the size of the individual than at any subsequent time. In adult life, when waste and repair are about equally balanced, a sufficient amount is needed to make good the daily loss from the various mental, physical, and other vital activities which can only be supported at the expense of tissue. Any larger quantity than this is excess.

In old age, when the assimilative powers are weakened by declining years, the amount of food which can be assimilated by the individual is even somewhat less than what is really needed; hence, as age advances, the quantity of food should be gradually diminished. Very many old people break down much sooner than they would otherwise do, were they more careful in this regard. When they lay aside their vigorous, active life, they should also curtail the quantity of their food. By this act of temperance, they might preserve intact to a much later period the integrity of their digestive organs, and so add years to their lives.

In not a few instances, the foundation of dyspepsia is laid by some mechanical injury, as a sprained ankle, a broken limb, or a severe bruise or cut, which requires rest from active exercise for a few weeks. Not considering the fact that much less food is demanded when a person is not engaged in active labor of any kind than at other times, the individual continues to eat heartily, and soon finds his digestive organs refusing to do their work from sheer exhaustion. On this account, it should be made a uniform custom to eat lightly on the weekly rest-day. The hearty Sabbath dinners in which many people indulge, making the day an occasion of feasting rather than a rest-day, cannot be too much condemned. The custom is without doubt responsible for many other forms of Sabbath-breaking, as no one can have

clear perceptions of right and a quick sense of wrong when laboring under the incubus of an overloaded stomach. For the hearty meal usually taken, it would be well to substitute a light one, consisting mostly of fruits and grains.

This plan, if pursued, would do away with much of the drowsiness in church of which many people and not a few pastors have abundant reason to complain. The intellect would be clearer, and hence better able to appreciate the privileges and comforts of religion. The sooner people recognize the fact that stomachs have much to do with religion, and that true religion includes the government of the appetite, and frowns upon abuse of the stomach as well as abuse of a fellow man, the better it will be for both stomachs and religion.

Each individual must, to a considerable extent, be his own guide respecting the exact amount of food to be taken at a given meal. If the appetite has been so long abused that it is no longer a safe guide, then reason must rule. The individual should, at the beginning of the meal, determine just how much he will eat; and when the specified quantity is taken, he must resolutely stop eating, leaving the table, if necessary, to escape temptation.

A man who desires to be at peace with his stomach should learn to stop when he has enough, no matter how strongly he may be tempted to do otherwise. There is much more truth than poetry in the old Scandinavian proverb, "Oxen know when to go home from grazing; but a fool never knows his stomach's measure." But experience, a dear school, ought after a time to teach the most unobservant person the amount of food his stomach will bear without discomfort and without injury. If a person in fair health finds that after eating of wholesome food he is troubled with fulness of the stomach, dulness over the eyes, sour stomach, eructations, or flatulence, he may be very sure that he is eating too much, and he should continue to diminish the amount taken at each meal until the symptoms mentioned disappear.

It is well to bear in mind that the danger is pretty much all on the side of overeating, the liability of eating too little being very small indeed. The tendency to overeat will be greatly lessened by eating very slowly, masticating the food thoroughly, and eating only the simplest articles. One who has never made the experiment will be astonished to see how little food is really required to support life. The writer has lived for months at a time on an average of seventeen ounces of solid food per day, gaining flesh the whole time. Cornaro, an Italian nobleman, lived for many years on twelve ounces of solid food per day (by solid food is meant the weight).

Numerous experiments made by Letheby, Parkes, and many other scientists, together with a careful study of the dietaries of various classes of artisans, laborers, professional men, etc., show that life can be well supported upon twenty ounces of carbonaceous and two and one-half ounces of nitrogenous food per day. Pugilists in training usually take but twenty ounces of solid food, and numerous classes of individuals subsist upon a considerably less quantity.

By reference to the table of nutritive values given on page 35, it will be easily possible to ascertain the amount of nutriment consumed in any given quantity of different varieties of food. It is perhaps worthy of remark that the grains, as shown in the table, are by far the most nutritious of all the various classes of food. When economy must be considered in the selection of food, this is a very important consideration; and it becomes doubly evident when we consider that it takes eleven pounds of vegetable food, including Indian meal, dry hay, etc., to make one of beef. It thus appears that a pound of beefsteak, or second-hand grain, costs thirty times as much as a pound of grain taken at first hand, besides being vastly inferior in quality.

ANSWERS TO CORRESPONDENTS.

CHEWING GUM — FOOD VALUE OF THE EGG-PLANT — RALSTON HEALTH CLUB.— N. W. L., Kansas, asks: "1. What effect does chewing gum have upon the system? 2. Do you recommend the eggplant as a food? 3. What is your opinion of the Ralston Health Club as a reform?"

Ans.— 1. It wastes the saliva and exhausts the salivary glands.

2. The nutritive value of the eggplant is very small, and on the whole this fruit is scarcely worth eating.

3. We are not very familiar with the details of the Ralston Health Club management, but recognize the fact that many persons have been, through this means, enlightened respecting the healthful care of their bodies.

THE BANANA.— I. H. S., Ohio, wishes to know: "1. The nutritive value of the banana. 2. If it should be cooked before eating."

Ans.— 1. The nutritive value of the banana is 26.7 per cent.

2. When the banana is allowed to mature properly before picking, and is then ripened, it is as mellow and luscious as a peach, and easily digestible; but if picked too green, it withers, and is then tough and indigestible. Green bananas may, however, be rendered digestible by baking.

INJURED KNEE.— C. C., Michigan, a young lady of sixteen years, writes that last August she had a fall in which her knee was injured, the joint water being forced out. It was treated with hot water at first, and later by a mustard plaster and rest, but has not improved. She desires suggestions for treatment, and to know if she should wear a rubber stocking.

Ans.— Fomentations applied two or three times a day for twenty minutes at a time; a cold, moist compress worn at night; massage, and electricity are the most effective means for treatment. A rubber stocking may be of value.

HICKORY-NUTS — WALNUTS. — L. B. O., Ohio, writes: "1. Are hickory-nuts and walnuts good, wholesome food, and easy to digest? 2. How should they be prepared?"

Ans.— 1. Yes, if thoroughly chewed, especially if subjected to a suitable preparation.

2. Nuts as well as other foods are improved by cooking. Thorough disintegration adds still further to their digestibility.

FACIAL NEURALGIA.— Miss S. M. W., of Iowa, asks: "What is the best treatment for facial neuralgia, especially that form which attacks the angle of the jaw, producing sharp pain on moving?"

Ans.— This symptom is generally due to disordered digestion. Correction of the condition of the stomach by a dry, aseptic diet, consisting chiefly of granose, fruits, and nut products, will often cause the pain to disappear at once. As a palliative, the fomentation is of great value. Applications of electricity, particularly galvanism and the rapidly alternating sinusoidal current, are of great value.

HAY FEVER — EGGS AND MILK — DANDRUFF.— R. H. W., Indiana, asks for answers to the following questions: "1. Can hay fever be cured? If so, please give remedy. 2. Are soft-boiled eggs and milk a good combination? 3. What will remove dandruff and restore oil to the hair?"

Ans.— 1. Yes. There are no simple remedies. The disease requires patient and thorough treatment by a specialist. The treatment must be begun several months before the time of the expected attack. The electric-light bath is an excellent palliative.

2. Yes.

3. Bathing the scalp with cold water two or three times a day, followed by vigorous rubbing of the scalp with the finger tips, is an excellent measure for this difficulty.

INJURED EYE.— A. A. J. asks for advice as to the treatment of an eye that was "ruptured" the 17th of last June by a knot which flew from a shingle jointer. The eye is still badly inflamed, a cataract is growing over the pupil, but the sight is not entirely destroyed.

Ans.— Consult a good oculist at once.

BRIGHT'S DISEASE.— Mrs. R. R. B., Chicago, asks for a prescription for diet in Bright's disease and kidney trouble.

Ans.— Kidney trouble is too general a term to allow either of a diagnosis or a prescription. Bright's disease appears in both acute and chronic forms. Generally this disease requires suppression of all causes of renal irritation. The food must be sufficient but never in excess. Meats, condiments, anything more than a small amount of salt, and all indigestible, irritating foods must be carefully avoided. During the acute attack, a diet of kumyss or buttermilk is to be recommended. Meats must be wholly avoided, and the diet should consist chiefly of fruits, grains, and nuts.

TOOTH-POWDER—SLEEPLESSNESS.— E. W., a student in Massachusetts, asks: "1. What is the best preparation to keep the teeth white and clean? What is the price of sanitary tooth-powder? 2. What will keep one from being sleepy while studying?"

Ans.— 1. The Antiseptic Dentifrice, sold by the Sanitary Supply Co., Battle Creek, Mich. Price, fifteen cents a tube.

2. Abundance of fresh air, vigorous exercise, a simple, abstemious diet, with good digestion.

DIABETES.— G. B. J. inquires: "What do you recommend for an aged person suffering from diabetes? The family physician will allow nothing but flesh food and oranges. 2. A merchant here would like to know how much it would cost an 'ordinary man' a month to live on health foods. 3. If fruit canned in glass jars cannot be obtained, what kind would you recommend?"

Ans.— 1. The following is the list of foods which we employ in treating diabetes: Gluten biscuit, lettuce, celery, asparagus, spinach, greens, kumyss, cottage cheese, buttermilk, nuts, nut butter, nut meal. Experience has shown most conclusively that the liberal use of meat in cases of diabetes is dangerous, as it gives rise to diabetic coma.

2. At the Chicago Medical Missionary Training-School, located at 1926 Wabash Ave., more than one hundred persons are living hygienically on Sanitarium foods. The average cost for each person is about eight cents a day, or sixty cents a week. The writer has lived for months at a time at an expense of six cents a day, or forty-two cents a week. At this rate the cost per month would not exceed two dollars.

3. There are some very excellent dried fruits to be had in the market, such as prunes, figs, apricots, and raisins, all of which are to be recommended.

POSITION OF THE BED — HOME GYMNASTICS.— Mrs. R. E., Kentucky, asks: "1. What is the most healthful position of the bed as regards the points of compass? 2. Please give me the author and price of any work or works that you could recommend on methodical gymnastics or Swedish gymnastics for use in a family of children."

Ans.— 1. The position of the body in bed in relation to the points of the compass is a matter of total indifference. The magnetic currents which pass over the earth's surface are wholly without effect upon the human body.

2. "The Special Kinesiology of Educational Gymnastics," by Baron Nils Posse, published by Lee and Shepard, Boston.

FETID FEET.— S. C., Kentucky, asks what to do for fetid feet, and the cause of the trouble.

Ans.— Bathe the feet in cold water for fifteen or twenty minutes daily. Let the water be as cold as can be borne, and place in the foot-bath tub only enough water to cover the soles of the feet. Cleanse the feet daily with Castile soap, and apply subcarbonate of bismuth freely in a solution of water. Equal parts of subcarbonate of bismuth and salicylic acid makes a very effective remedy in some cases. The stockings should be changed daily.

BROMOSE FOR BABIES.— M. L. E., a nurse in Maine, wishes to know if bromose is suitable to feed to infants under one month old. In her practise she finds that cow's milk does not always agree with young babies.

Ans.— Bromose has saved the life of many babies. It is admirably adapted to the infantile stomach, and does not form curds as does cow's milk. It is rich in fat, and is the ideal food for infants.

RHEUMATISM — CRAMPS — FLOATING KIDNEY — BATHING — BURNING FEET — WRINKLES — FALLING HAIR — ELECTRIC BATHS — TIRED FEELING.— M. E. W., writing for a number of people in a boarding-house in Chicago, inquires: "1. What is the best and quickest way to cure muscular rheumatism? 2. What causes cramping of the limbs? 3. What will cure it? 4. What can be done for a person who has stiffness in the hips, legs, neck, and shoulders? It has developed in three months, the patient having had good health up to this time, and having walked a good deal. 5. What treatment is given for floating kidney? 6. Is it good for the skin to bathe the face in hot water before retiring, or is cold water best at all times? 7. What can be done for feet that burn? 8. What will keep the hands from becoming wrinkled? 9. Why does the face wrinkle more than the body? 10. What will prevent the hair from falling out? 11. What will make it grow? 12. Are the same electric baths given in Chicago that are used at the Battle Creek Sanitarium? 13. What remedy is there for 'that tired feeling'?"

Ans.— 1. The warm bath is the most valuable remedy. The diet must also be corrected. Dilatation of the stomach exists in most cases of rheumatism of all forms; hence an aseptic dietary must be adopted. A diet consisting of fruit, grains, and nut preparations is most suitable.

2. The cause may exist either in the muscles or in the nerve-centers.

3. The best remedy is a neutral bath of 92° F. for half an hour or an hour.

4. A warm bath, fomentations over the affected parts, massage, and electricity are the most valuable measures.

5. The kidney should be supported by a suitable abdominal supporter. The Natural Abdominal Supporter is the only one we can fully recommend. It is sold by the Modern Medicine Co., Battle Creek, Mich. In case the disorder is painful, and the prolapsed organ cannot be held in place by the supporter, it may be necessary to have the organ fixed in place by a surgical operation. The operation is not dangerous, and rarely fails to succeed.

6. Both hot and cold water may be usefully applied to the face. The application of heat aids in emptying the skin of its secretions when the so-called pores or ducts are obstructed. The application of cold water to the skin stimulates the circulation.

7. Place against the feet, after retiring, a rubber bag of ice water.

8. Daily bathing in warm water and rubbing with oil.

9. It is doubtless due to the effect of the muscles of expression in wrinkling and folding of the skin.

10. Cut the hair close, and shampoo the scalp every morning with cold water.

11. The same measures will make it grow, unless the roots of the hair are destroyed.

12. Yes.

13. Get a new set of nerves.

SOUR MILK.— O. S. F., Wyoming, having seen a statement in the *Gospel of Health* that the Germans and others of various countries sour their milk before using it, and that the natives of Iceland store up their milk in a hogshead in the back yard for use during the year, wishes to know if such milk is to be recommended as food. Can it be preferable to good sweet milk and cream?

Ans.— Sour milk scalded so as to kill the germs and the yeast which it contains, is more digestible than sweet cow's milk that is raw, or even boiled milk, in the majority of cases. The small curds which it forms are easily broken up in the stomach, thus facilitating the process of digestion, while raw milk forms large, hard curds, which are difficult of digestion. Milk which has undergone putrefaction should, of course, be avoided.

BAD TASTE IN THE MOUTH — GLYCOZONE. — S. H. C., Washington, asks: "1. What is the trouble when a person wakes in the morning with a bad taste in the mouth? 2. Would you advise the internal use of hydrozone or glycozone in such a case?"

Ans.— 1. Germs. There is doubtless indigestion. The free use of milk, late suppers, and similar errors in diet are frequent causes of this symptom, which is also often present in dilatation of the stomach.

2. The remedies might prove of some value, but the diet must also be corrected. Antiseptic tablets are especially to be recommended, instead of the remedies named.

LITERARY NOTICES.

"THE Cigarette and the Youth," by E. A. King, President of the Anti-Cigarette League, presents the facts of the case in such a manner as to arouse the most indifferent as to the extent of this great evil. It should be scattered broadcast that no one may be able to claim ignorance as his excuse for failing to condemn the habit. No better work could be done by teachers than to place a copy of this little leaflet in the hands of every parent within reach. The public should be educated and a sentiment against the habit created, that the existing laws may be enforced.

Those who are interested in the nation's welfare should buy the leaflet in large quantities for free distribution. The price is such that all can afford to do this. Single copy, 5 cts.; twelve copies, 25 cts.; fifty copies, $1.00. Wood-Allen Publishing Co., Ann Arbor, Mich.

Good Housekeeping, the well-known monthly "conducted in the interests of the higher life of the household," completed its twenty-fifth volume with the December issue, which is, very naturally, largely a Christmas number. Nearly all the verse relates to holiday subjects; as does the leading story and the "practical papers." This desirable number may be obtained free with a subscription for 1898. $2 a year. Clark W. Bryan Company, Springfield, Mass.

THE publishers of the *Ladies' Home Journal* announce that their journal for the year 1898 will be "the best of all the years." Their aim will be to make it the most cheerful and helpful magazine which a woman can have in her home. The price will remain the same, one dollar for a year's subscription. The Curtis Publishing Company, Philadelphia.

THE *Atlantic Monthly* aims to represent the interests of cultivated readers who are thoroughly concerned in the development of the higher life of the nation and wish to see great subjects treated in a great way, and who seek in their magazine also a satisfaction of their demand for pure literature. It combines the prominent features of the political, historical, and sociological review, the critical and scholarly journal, and the vehicle for creative literature. Houghton, Mifflin & Co., Boston, Mass.

BEGINNING with the new year, *Popular Science News* (New York) is to be much improved, many new writers and prominent contributors having been engaged. This popular monthly contains a large number of short, easy, practical, interesting, and popular scientific articles, that can be appreciated and enjoyed by any intelligent reader, even though he knows little or nothing of science.

Its departments of Nature, Science, Archeology, Invention, Health, Electricity, Hygiene, and Medicine are ably conducted by specialists, either one being alone worth the subscription price. The journal is a great educator for young and old. Write for a free sample copy. Mention this magazine.

Address Popular Science, 108 Fulton St., New York.

PUBLISHERS' DEPARTMENT.

WE feel sure that our readers will not be slow to recognize the fact that GOOD HEALTH has donned a new dress; and we trust the change will meet the hearty approval of the thousands of subscribers, old and new, whose generous patronage has made it possible for us to make this improvement in the magazine, which, from an artistic standpoint, is, we believe, the best movement we have ever made in this line. The original drawing was executed by Geo. Willis Bardwell, a leading artist of Brooklyn, N. Y., who kindly gave his personal supervision to the making of the plates.

GOOD HEALTH aims to be in the front rank of progress in everything with which it undertakes to deal. It is pre-eminently a magazine for the people, and the managers have constantly before them the idea that not a single page, from front cover to back, shall present anything which will not meet the approval of all intelligent and sensible people.

GOOD HEALTH for 1898 is going to be the best volume of the best health magazine ever published. The field occupied by GOOD HEALTH is unique. No other health journal has ever undertaken to stand alone on its own merits as an exponent of sound scientific principles in relation to healthful living. The expense in connection with the publication of a magazine like this far exceeds any income which can be expected from subscriptions, other journals relying upon a liberal income from their advertising pages from which to make up the deficit and provide an income. The policy pursued by this magazine, however, has made impossible any considerable amount of income from this source, owing to the fact that it excludes from its advertising pages as rigorously as from its editorial columns anything which is out of harmony with the principles for which it stands; in other words, it refuses to advertise anything in which it does not believe, and which it does not know to be genuine. This policy necessarily cuts off a revenue amounting to many thousands of dollars annually, and necessitates an annual deficit of several thousand dollars, which has, from year to year, been made up from other sources. The editors and managers have kept their eyes steadfastly fixed upon the idea for which this magazine and the various other enterprises with which it is connected, stand before the world, and have endeavored to make it a consistent exponent of an advanced line of sanitary reform and wholesome living.

It is highly gratifying to the managers to see that their efforts to maintain a journal free from every taint of quackery, humbuggery, pseudo-science, and fads of all sorts is, from year to year, coming to be more appreciated by an intelligent public, and, with an increased number of contributors and the encouragement of a greatly enlarged constituency, it is believed that during the year 1898 and the years to come, the magazine will be made more and more deserving of the cordial sympathy and support which have been accorded it and the principles which it represents.

THE plan of campaign which the managers of GOOD HEALTH have adopted during the last year has demonstrated the fact that there is to be found in every city a multitude of men and women who are eagerly inquiring after better ways in diet, dress, and other matters pertaining to the care of the body.

Miss Butler, who, in company with nearly a dozen trained nurses and other workers in this line, is at the present time representing the Good Health Publishing Company in St. Louis, Mo., reports that a number of Good Health Clubs are already in process of organization, and that the work is most cordially approved and supported by the leading physicians and best citizens. Mrs. Kate Nuding has recently joined the St. Louis corps, and will shortly begin a series of lessons in cookery in connection with the several Schools of Health which are to be held.

Misses Balles and Crowthers, trained nurses from the Battle Creek Sanitarium, have within the last month conducted a very successful School of Health in Louisville, Ky. The organization of this school was chiefly due to the efforts of Mr. Vreeland, who had spent several weeks in introducing the magazine to the elite of this flourishing Southern city. Its success was also in no small degree due to the kindly offices of Mr. W. M. Danner, the energetic general secretary of the Y. M. C. A. of Louisville. Thanks are also due to Mr. Halderman, well known throughout the United States as the proprietor of the Louisville *Courier-Journal*, who freely gave the columns of his paper to promote the interests of the school and the work in which it is engaged.

THANKSGIVING AT THE SANITARIUM.

"LET us be thankful, not only that we are alive, but that everything else is alive," said Dr. Kellogg in announcing that there would be no turkey, no animal food of any kind, at the Thanksgiving dinner of the Battle Creek Sanitarium.

If all of the turkeys who escaped slaughter on account of this decree could have looked through the dining-room windows at the bountiful feast

served without them, their feelings of gratitude for life and liberty must certainly have been mingled with mortification to see of how little real consequence they were after all.

This Thanksgiving dinner must have been a great disappointment to millions of germs that were thus cheated out of a glorious revel in the human stomach.

One who enjoyed the pleasure of dining at the Sanitarium that day, and then read a sketch of the orthodox Thanksgiving repast that appeared in the Chicago *Record* that morning, could not help reflecting that "the world does move," skeptics to the contrary notwithstanding.

The following is the menu of the Sanitarium dinner: —

SOUPS

Mock Bisque Vegetable Oyster

VEGETABLES AND LEGUMES

Mashed Sweet Potato Corn Pulp Potato Puff
Lentil Roast with Gravy
Pease Patties with Tomato Sauce
Baked Parsnips with Egg Sauce
Toasted Nuttose

RELISHES

Lettuce Chopped Beets Baked Apples

GRAINS

Wheatose
Browned Rice with Black Raspberry Sauce

BREADS

Beaten Biscuit Cocoanut Crisps Currant Buns
Wafer Sandwiches Oatmeal Biscuit
Graham Bread White Bread Zwieback

COOKED FRUITS

Cherries Jellies Cranberries
Sweet California Prunes
Peaches

DESSERT

Nut Cake Lemon Pie

FRESH FRUITS

Oranges Grapes Apples Bananas

While these dishes were all tempting and delicious, one had no inclination to eat too much. He was just in the mood to appreciate this quotation from the *Record*: —

"Remember, when you face that vast array of food — the turkey with its moist halo, the foot-hill of mashed potatoes, the jungles of celery, the red lake of cranberry sauce, the pyramids of biscuit, the trembling molds of jelly, the fat cakes — remember what you read in your school physiology, that the human stomach has a capacity of three pints!

"If there is a soup, it is oyster soup of exceeding richness, which takes the edge from any faltering appetite.

"But you must eat.

"'Eat!' says the anxious woman who has prepared all this mammoth feast especially for you.

"'Eat!'

"It is not a request or an entreaty; it is a command.

"Food descends upon you as by an avalanche.

"'Eat!' comes the command again.

"Eat turkey because tradition says you must.

"Take the cranberry sauce because it goes with turkey.

"Dare to refuse mother's cake, and you are an undutiful son.

"Refuse sister's nut cake, and note her disappointment.

"What! refuse the fruit-cake that has been saving for two months?

"Wave away the pumpkin pie — you who have always been so fond of it?

"Why, the preserved peaches were opened especially on your account.

"'Eat!'

"Soldiers have *died* for their country and their families. Why should you refuse to eat?"

Upon the back of the Sanitarium menu were printed the following verses; they express concisely the principle upon which the dinner was given: —

"While earth not only can our needs supply,
But, lavish of her store, provides for luxury,
A guiltless feast administered with ease,
And without blood, is prodigal to please."

"'T is then for naught that Mother Earth provides
The stores of all she shows and all she hides,
If man with fleshy morsels must be fed,
And chaw with bloody teeth the breathing bread."

"Not so the golden age who fed on fruit,
Nor durst with bloody meats their mouths pollute."

"Where will he stop who feeds with household bread,
Then eats the poultry which before he fed?"

A VEGETARIAN BANQUET.

A COMPLIMENTARY banquet was given by the Sanitarium to the Calhoun County Medical Association, the evening of December the seventh. Conducted by the Sanitarium physicians, the guests first

made the tour of the Sanitarium and Hospital, visiting the bath-rooms, laboratories, Swedish mechanical movement room, gymnasium, etc. Great interest was shown in the arrangements for giving electric-light baths and electric baths. The gymnasium was a handsome sight, as a large class of nurses was taking the regular drill in physical training. The X-ray was on exhibition in the static room, and most of the visitors took a look at their skeleton hands just before going into the dining-room.

The Sanitarium dining-room was beautifully decorated for the occasion, and great pains was taken to seat the company so that the visiting physicians and the Sanitarium physicians might become as generally acquainted as possible.

The dinner was similar to the one served Thanksgiving day, there being no animal foods except milk and cream. Some of the guests will never forget the meaning of "nuttose" and "granose," for these articles of food were in high request. Each table had a tempting centerpiece of fruit. The toasts responded to were as follows:—

Master of Ceremonies.....Dr. J. F. Smiley

"Tried, Trusted, and True, with hand on the helm he guides us through."

Welcome.....Dr. S. S. French

"You have now a broken banquet; but we'll mend it. A good digestion to you all: and once more I shower a welcome on ye."

The Old and the New.....Dr. Geo. W. Green

"I shall leave you one o' these days, and I have a rheum in mine eyes, too."

The Doctor in Politics.....Dr. E. J. Pendell

"Truly I have him; but I would not like to be the party that should desire to touch him."

Relation of the General Practitioner to Medical Colleges.....Dr. C. L. Barber

"I shall attend your leisure; but make haste."

The Doctor's Wife.....Dr. C. Van Zwaluwenburg

"Oft have I seen her standing thus, while lengthening shadows crept along the gravel walk, patiently awaiting his return."

Medical Societies.....Dr. Darling

"Like sunbeams sifted through forest leaves diffusing light about."

The Press.....Hon. Geo. Willard

"They have chosen a council that will from them take their liberties."

Care of the Sick Poor at Public Expense.....Dr. Geo. H. Greene

"Brother, have you a voice of mercy in you?"

Vacation.....Dr. Charles Nancrede

"And carry with us ears and eyes for the time."

Our Legal Brethren.....L. E. Clawson, Esq.

"I heard of one of them no longer ago than yesterday."

Shall Our Students and Practitioners Go Abroad for Instruction?.....Dr. H. D. Thomason

"And yet I am doubtful, for I am mainly ignorant."

The Physician as a Philanthropist.....Dr. D. H. Kress

"Very good, give it nothing, I pray you, for it is not worth the feeding."

Our Hospitals.....Dr. H. B. Osborne

"By the side of the public road stands a friendly roof, for all wanderers who pass this way."

Medical Education.....Dr. A. W. Alvord

"I 'll stand to-day for thee, and me and Troy."

Our Cures Oft in Ourselves Do Dwell, which We Ascribe to Heaven.....Rev. Lewis Brown

"He who merely is, may be a dull insensate hind, but he who knows, is in himself divine."

The Doctor's Horse.....Dr. E. W. Lamoreaux

"Foam flecked and panting, he arrived at the gate."

Almost any good short speech is like a glass of soda-water — it effervesces,— you feel the charm, but a moment later you cannot describe it. We could not catch the bubbles on these toasts for GOOD HEALTH, but a few of the facts did not escape so easily.

Dr. French stated that millions of manufactured goods are sent out from Battle Creek yearly, to every part of the civilized world. No small contribution to this vast export is made by the health foods of the Sanitarium.

Dr. Pendell was sure that if the doctors would go into politics as a unit, they could become a power for good.

Dr. Greene thought that the care of the sick poor should not be knocked down to the highest bidder, but that every sick person should have a choice as to his physician.

Mr. Clawson, who is a physician's husband, himself a lawyer, said: "You must go to Berlin for universities, to Paris for fashions, to Chicago for high buildings, to Memphis for tombs, but you must go to Battle Creek for cereal foods."

Dr. Thomason said that medical science abroad is not more advanced than our own. The medical student and practitioner should study at home, but go abroad to compare. "As a nation we are heirs to practical progress."

Dr. Kress believed that the social outcast is worth feeding. He showed how one man's soul had been saved through the agency of a bowl of soup. He said that the physician has exceptional opportunities to do good. It is his duty to go back to the causes of sickness and disease, to be an educator as well as a doctor.

Dr. Osborne gave amusing reminiscences of the lack of antiseptic precautions in surgical wards thirty years ago.

Those not of the fraternity who were present were convinced that a banqueter's toast loses nothing in flavor from being well medicated.

MR. R. P. MARKS, of the Marshall Field Company, Chicago, has been a guest of the Sanitarium for nine weeks. He returns to his place of business greatly restored in health and strength. During his stay with us Mr. Marks won universal esteem by his kind and cheerful deportment and truly genteel ways.

T. W. H. H. JOHNSTON, Esq., of St. Paul, secretary of pensions for the United States Senate, and his estimable wife, have been with us through the autumn, and returned to their duties in Washington on the reassembling of Congress. We all became much attached to thesek ind friends. Mr. Johnson was ever ready to assist with kind Christian words in private or public whenever opportunity appeared.

IN going to St. Paul and Minneapolis the wise traveler selects the Chicago, Milwaukee & St. Paul Railway.

Why?

It is the best road between Chicago and the Twin Cities.

It has the most perfect track.

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It is the favorite route for ladies and children as well as for men.

It is the most popular road west of Chicago.

For further information, apply to nearest ticket agent or address Harry Mercer, Michigan Passenger Agent, C., M. & St. P. Ry., 7 Fort St., W., Detroit, Mich.

NEW FACTS ABOUT SOUTH DAKOTA.— To enable the farmers in the Eastern States to pass the long winter evenings in an entertaining and instructive manner, the Chicago, Milwaukee & St. Paul Railway Company has recently published for free distribution, a new pamphlet, finely illustrated with pictures which will delight the eyes of Eastern farmers, and containing letters from their brethren in South Dakota descriptive of their experience while tilling the soil and raising cattle, sheep, and hogs in the "Sunshine State."

This pamphlet is well worth reading through from cover to cover. It will be sent free if you will send your address to either H. F. Hunter, Immigration Agent, 291 Dearborn St., Chicago; or to Geo. H. Heafford, General Passenger Agent, Old Colony Building, Chicago, Ill.

OWING to the early publication of the January issue of GOOD HEALTH, the managers have thought best to defer the result of the menu contest till the February number. This will give more time for all contestants and opportunity for the committee to look into the merits of each proof submitted. The terms of this offer appeared in the advertising department of the December number.

A FINE view of Pikes Peak and of Mounts Harvard, Yale, and Princeton in the Rocky Mountains can be had from the tourist car of the Midland Tourist Route which leaves Chicago for California at 10 o'clock every Saturday night from the Chicago, Milwaukee & St. Paul Railway passenger station. For illustrated descriptive circular apply to the nearest coupon ticket agent, or address Harry Mercer, Michigan Passenger agent, C., M. & St. P. Ry., 7 Fort St., W., Detroit, Mich.

FROM THE GREAT LAKES TO COLORADO.— 1,069 miles in less than 33 hours in an electric-lighted sleeping-car, from Chicago to Denver, over the Omaha Short Line of the Chicago, Milwaukee & St. Paul Railway and the Rock Island Route, via Lincoln, Neb. Time annihilates space, and it is "mighty easy ridin'" on the cars.

Ticket Offices, 95 Adams street and at Union Passenger Station, Canal and Adams streets, Chicago. Train starts every night at 10 o'clock. Don't get left.

Do you love music? If so, secure one of the latest and prettiest two-steps of the day, by mailing ten cents (silver or stamps) to cover mailing and postage, to the undersigned for a copy of the "Big Four Two-Step." (Mark envelope "Two-Step.") We are giving this music, which is regular *fifty-cent* sheet music, at this exceedingly low rate for the purpose of advertising, and testing the value of the different papers as advertising mediums. Address E. O. Mc Cormick, Passenger Traffic Manager, "Big Four Route," Cincinnati, O.

Mention this paper when you write.

COLUMBIA CALENDAR FOR 1898.— For the thirteenth year the Columbia Pad Calendar makes its appearance promptly on time for 1898, and while its general style is of the same familiar character,

the many bright thoughts it contains, contributed by its friends in many parts of the country, as well as abroad, are new, and will be appreciated by all who take an interest in bicycling, healthful exercise, and good roads.

The 1898 Columbia Pad Calendar contains a convenient arrangement of dates that will prove useful to busy men; and as plenty of space is reserved for memoranda, the pad may be used as diary and as a reminder for business appointments and obligations. It is neat in appearance, takes up but little room, and is both ornamental and useful for the desk, while its stand is of such character that it may be used either upon the desk or hung upon the wall.

The moon's phases are indicated in the Calendar for the benefit of those who wish to have this information. The calendar is ready for distribution, and all orders for it will be filled upon the day of receipt. It can be obtained by mail prepaid for five two-cent stamps by addressing the Calendar Department of the Pope Manufacturing Company, Hartford, Conn.

TO SUNNY CALIFORNIA.— Every Saturday night during the winter months personally conducted Tourist Car excursions, organized by the Chicago, Milwaukee & St. Paul Railway, start from Chicago at 10 o'clock P. M., and run through Omaha, Lincoln, Colorado Springs, and Salt Lake City, to Sacramento, San Francisco, and Los Angeles, via the popular Midland Tourist Car Route.

Each car is accompanied by an intelligent and obliging courier, who makes himself useful to all the passengers. This is an entirely new departure in Tourist Car service, and is highly approved by hundreds of California passengers. A sleeping berth costs but $6, and the railroad ticket is proportionately cheap.

Apply to the nearest Coupon Ticket Agent, for an illustrated time-table folder of the Midland Route to California, or address for further information,

HARRY MERCER,
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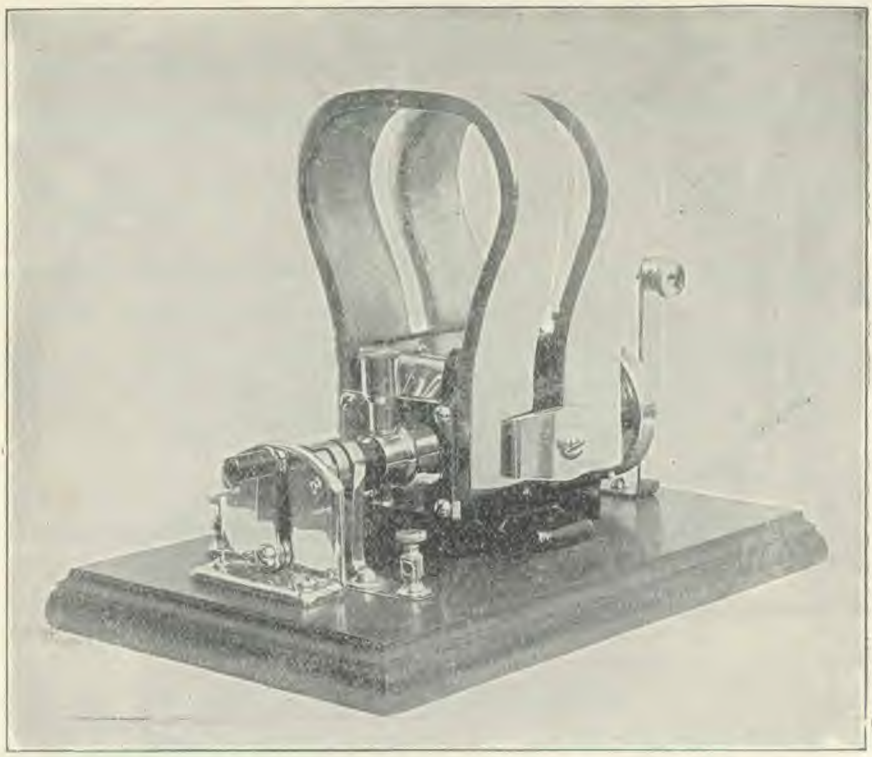

NEW SINUSOIDAL APPARATUS.

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THIS apparatus is extremely convenient in use. It is **always ready for business,** and the several different currents can be obtained by simply moving a switch, and without adjustment of the conducting cords.

Its large capacity is shown by the fact that **it will light an ordinary 16 C. P. electric lamp.**

It is provided with a **perfect speed regulator,** and the current is controlled by a simple rheostat, as any other electrical current.

This apparatus, which is now for the first time made available to the members of the profession, is furnished in the following styles and combinations :—

Sinusoidal apparatus with permanent magnets; hand motor, consisting of a crank with grappling pulley and plate mounted on wooden base ; electric motor to be run with two Edison or storage cells ; electric motor, to be operated by ordinary incandescent current 100 to 110 volts or with 50 volt current from transformer or an electric street-car system ; water motor ; sponge rhesotat, convenient and indestructible.

Some sort of motor is of course required to operate it. Any of the above motors will be found satisfactory, but the most satisfactory arrangement of all is, of course, the electric motor, operated by an electric-light system, which is constant and always ready for use.

The sinusoidal machine can now be promptly furnished without motor, or with any of the different motors named above, carefully boxed and delivered at the express office. A full set of directions is sent with each apparatus.

For circulars and prices address,

THE SANITARY AND ELECTRICAL SUPPLY COMPANY,

Battle Creek, Mich.; or 28 College Place, Chicago, Ill.

THE NEBRASKA SANITARIUM.

THE Nebraska Sanitarium is a branch of the great Medical and Surgical Sanitarium at Battle Creek, Mich. It has as its superintendent, A. N. Loper, M. S., M. D., who was formerly a member of the medical staff of the Battle Creek Sanitarium. Dr. J. H. Kellogg, of the Battle Creek Sanitarium, acts as consulting and advisory physician. Its nurses have all received a thorough course of training at Battle Creek, and are well qualified to do excellent work. The treatment, dietary, and general management are all in harmony with the teaching and practise of the Sanitarium at Battle Creek, Mich.

Location.

Lincoln is a city of some 50,000 population, a prominent railroad center of the West, lying immediately in the track of several of the chief lines stretching from the East to the Pacific Coast. It has the Burlington Route, the Rock Island, the Union Pacific, the Fremont and Elk Horn, and various branches reaching out in every direction.

The Nebraska Sanitarium is located at College View, just outside the noise and bustle of the city of Lincoln, where pure air, pure water, and a well-drained soil — the essential elements to a salubrious location — are happily combined. The surrounding scenery consists of a series of pleasing undulations, dotted here and there by beautiful groves and streams. The increasing altitude, so noticeable to invalids in traveling from the East to the Rockies, renders this institution a favorable stopping-place for becoming acclimated by degrees, thus obviating the serious results sometimes experienced from too sudden a change from the dense atmosphere of the Lake Region and the

Mississippi Valley to the rarer atmosphere of Colorado Springs, Boulder, and other mountain resorts. The altitude of College View is about 1,300 feet.

One of the pleasant features of Nebraska is the almost perpetual smoothness and solidity of her thoroughfares, rendering outdoor exercise by means of walking, bicycling, driving, etc., both pleasant and profitable. The city of Lincoln, lying about three miles to the northwest, is connected by a spacious boulevard with a sister suburb of easy access to College View.

An electric motor line of street-cars connects College View with Lincoln, running direct from the post-office square in the city to within a few steps of the sanitarium without change. All through cars on this line are marked "Union College," an excellent educational institution, the spacious grounds of which are adjacent to the Sanitarium.

Accommodations.

The main building of the Sanitarium affords room for about twenty patients, but ample accommodations are afforded by cottages and a large dormitory located only a few steps distant, which is heated by steam and lighted by electricity. Great care has been given to proper ventilation, heating, and other sanitary arrangements.

Methods.

This institution, like the parent institution at Battle Creek, Mich., differs from most sanitariums in that its central and fundamental idea is the thought that health-getting is not a matter of magic or of drugs, neither, in most cases, one of climate, but rather a matter of training and education. Most of the patients who come to us are sick because they have neglected to supply the conditions necessary for health, or because they have, by long-continued violation of the laws of health in various unhygienic practises, developed evil tendencies and deranged the functions of the various organs of the body. The cure of such patients must largely consist in a course of systematic training by which they will be educated out of their evil ways into better ones; by which their abnormal vital functions will be trained to normal and healthful activity. This course of treatment necessarily includes such discipline and regimen as will influence every disordered function. All the habits of life must be conformed to such rules and principles as will efficiently and curatively modify the disordered vital processes.

This institution is simply a place where, by the aid of a liberal supply of the helps afforded by modern ideas of hygiene, sanitation, and rational medicine, the patient is trained and educated out of his morbid state into a condition of health. First of all, of course, morbid conditions must be corrected so far as medical and surgical means can accomplish the work; but when this has been done, there still remains a work which is too often neglected — that of training and disciplining the patient in right habits of activity, rest, diet, etc.

We aim to cure the patient, not simply his malady. A large number of the patients who visit our sanitariums have had their diseases cured many times. Their torpid livers, diseased kidneys, and sour stomachs have been cured again and again by patent medicines and nostrums of various sorts. Their nerves have been toned up and toned down by the most powerful specifics advertised in newspapers and almanacs. Nevertheless, they are still sick, and have not infrequently reached a condition in which their jaded livers, kidneys, stomachs, or nerves have ceased to react to the remedies swallowed, and the once highly prized mixtures no longer give even temporary relief.

Many of those who patronize our insti-

tutions are of the most chronic and obstinate class, and have previously visited many "springs" and health resorts. Almost every change has brought relief, but the root of the difficulty remains, and can be eradicated only by a careful and scientifically directed course of *health culture.*

This is just the class of patients to which a sanitarium should be adapted. The temporary relief afforded by palliative means is no longer obtainable. Radical measures must be adopted; and for the successful employment of such means a well-regulated institution, with its trained corps of attendants, its systematic rules and regulations, is absolutely indispensable.

The managers have undertaken to make the Nebraska Sanitarium a *thoroughly scientific health institution.* The case of every patient is most thoroughly investigated. Physical examination includes not only the usual methods employed by the profession, but careful microscopical and bacteriological investigations in cases upon which such studies may throw light. To these are added the chemical analysis of stomach fluids obtained after a test breakfast, which includes a determination of the exact amount and quality of the digestive work done by the stomach, thus ascertaining any excess or deficiency and its amount, and thereby obtaining data which may form the basis of an exact diagnosis of the condition of the stomach processes, and a rational prescription. Careful qualitative and quantitative analysis of the secretions is made, and repeated as frequently as the conditions of the case may require.

Medical Facilities.

The methods of treatment include the best rational remedies for disease, and, in addition, a great number of means which can best be employed only in a well-equipped sanitarium, embracing the various resources of hydrotherapy, electricity in all its most useful and scientific forms, sun-baths, manual Swedish movements, medicinal inhalations, etc.

One of the latest additions to the therapeutic resources of the institution is the electric-light or radiant-heat bath, which was originated at the Battle Creek (Mich.) Sanitarium about four years ago, and which proves to be a wonderfully effective agent in certain classes of diseases, its properties being exhilarating and tonic as well as eliminative, in which respects it is much superior to the Turkish, Russian, vapor, and other forms of eliminative baths, although the latter are also employed in cases in which they are specially indicated. The heat from the incandescent electric light is found to penetrate a long distance into the body. In fact, when the unclothed body is surrounded with a multitude of glowing electric lights, it may be said without exaggeration that every fiber of the body is illuminated by exposure to the powerful influence of this remedial agent. It has been shown that plants grow under the influence of the electric light as under the influence of sunlight. Seeds germinate, and various vital processes are carried on as though exposed to the action of the sun's rays. The electric-light bath is perhaps a nearly complete substitute for the sun-bath, and has the advantage that it is under absolute control. Any degree of effect desired can be produced.

Special attention is given to massage by skilled manipulators. The system employed is in some respects peculiar to our sanitariums, although not absolutely novel. It is made up of the most valuable features of the French, German, English, and Swedish systems of massage, and is modified, of course, to suit individual cases. In the manual Swedish movement department persons who have been carefully taught by trainers direct

from Sweden do the most efficient service in this line. The system is not employed in a haphazard way, as it is not left to the manipulators themselves, but is as carefully prescribed as medicines or any other class of curative agents.

The electrical department includes an elaborate outfit of ingenious appliances. The electrical currents used are dosed with the greatest care, by means of delicate instruments prepared for regulating the amount of current required to meet the necessities of individual cases.

There is no particular "system" or routine method employed in the establishment. The prescription for each patient is based upon the results of the careful examination made of his particular case, the specific wants of which are considered and met by suitable medicinal and other treatment, and an appropriate regulation of his diet and regimen, if required. Mental and moral means are not forgotten. The nervous patient must not only receive a suitable prescription for diet, etc., but must be trained to self-control. The neurasthenic must be taught to conserve nervous energy, and how to cultivate nerve tone. The hysterical and hypochondriacal must be convinced of the dangers arising from self-inspection and self-centering of the mind, and must be cajoled into a healthy activity of mind and body. A man with a bad stomach or liver must be taught how to give his stomach and liver an easier time. The chronic pill-swallower must be weaned from his doses. The woman who takes an inventory of her symptoms every morning lest one should have disappeared overnight, must be jostled out of her invalid ruts, and must be inspired with a wholesome hatred of disease and an earnest determination to escape from its thralldom.

An effort is made to inspire every one employed in the institution with the thought that the place must be kept full of sturdy ideas about health and wholesome living, and that every room must be kept aglow with mental and moral sunshine through the agency of cheerful surroundings, kindly sympathy, and efficient and amiable service.

Special advantages are afforded those who require treatment for such local ailments as throat and nasal affections, diseases of the eye, genito-urinary diseases, etc.

Dietary.

A liberal, wholesome diet is provided, a careful study of the food elements required for individual cases being made, so that the foods best suited to the building up of each patient may be prescribed and served in a palatable manner, recog nizing the fact that improper dietary and a general disregard for the principles governing a healthy digestion are positive factors in the cause of the majority of chronic diseases. It is recognized that a thorough and careful study of the demands of each case is essential to a speedy and complete recovery of health.

Although articles of diet that are known enemies to digestion and the body in general are excluded from the bill of fare, no pains are spared to provide a toothsome, tempting, and palatable variety of the most wholesome foods, sufficient to appease the most capricious appetite, an effort being made to educate the depraved appetite away from its unnatural desires, and to relish and enjoy that which is wholesome, pure, and natural.

Any further information relating to terms, etc., will be promptly answered by mail or telegram.

Address,

A. N. LOPER, M. D., Supt.; or

NEBRASKA SANITARIUM,

College View, Neb.