10 CENTS A COPY. PUBLISHED MONTHLY. $1.00 A YEAR.
Entered at the Post Office in Battle Creek, Mich., as Second-class Matter.

GOOD HEALTH

MAY, 1903

MENS SANA IN CORPORE SANO

VOL. XXXVIII. *Edited by J. H. KELLOGG, M. D.* NO. 5.

Spring Tonics, - - - - - By J. H. Kellogg, M. D.

PARK SCENE IN CHICAGO, ILL.

GOOD HEALTH

A Journal of Hygiene

VOL. XXXVIII MAY, 1903 No. 5

SPRING TONICS

BY J. H. KELLOGG, M. D.

WITH the arrival of the warm weather of spring there is a general letting down of the vital tone with most people, which manifests itself in a mania of indisposition to mental and muscular activity, and in many cases a loss of appetite and general sluggishness.

Many are led by these uncomfortable symptoms to resort to the use of wine or other alcoholic beverages, to seek relief in tonics, so-called "spring tonics," perhaps, "blood purifiers," "appetizers," and patent medicines of various sorts, whose only virtues consist in their misleading names and in the false hopes raised by the manufactured testimonials by which they are recommended. Bitters and herb teas of various sorts are also very commonly resorted to in the springtime as remedies for spring biliousness, lack of strength, and other ailments which become especially common at this season of the year. None of these remedies are capable of affording anything more than very temporary relief, and the majority are incapable of accomplishing even this. Some are highly pernicious, and liable to produce more or less serious injury if employed for any length of time.

Before considering what remedies may usefully be employed at a season of the year when there seems to be a wide-spread feeling of need for reinvigoration of the vital forces, let us consider the meaning of the diminished vigor which one feels on the approach of warm weather. The poetic figure which represents life as a candle which is being slowly but surely consumed, expresses not simply a poetic idea but a scientific fact. The body is in reality a living furnace in which fuel (food) is constantly burning, and sometimes the furnace itself is in part consumed when the supply of fuel is insufficient or the demand unusually great. During the winter season the vital fire burns at a more rapid rate than during the warm months, the purpose being to create the amount of heat required to make good the daily losses by exposure to an atmosphere much below the temperature of the body.

To maintain this rapid rate of combustion greatly taxes the digestive powers and all the vital forces. Only the very strongest constitutions can endure continual exposure to a low temperature. In other words, the extraordinary effort required by the forces of the body to maintain animal heat during the winter season makes a great draft on the vitality, and when spring comes Nature recognizes the necessity for rest and opportunity for recuperation of the vital powers. The advent of warm weather lessens the demand for heat, hence the vital fires are diminished in intensity, the wheels of life are slowed

a little so that the expenditure of energy may be lessened, and thus an opportunity be afforded for recuperation.

An interesting fact which the physiologists have brought out for us, is the connection between heat and work. A steam engine utilizes about one tenth to one sixth of the energy in the coal in work, the balance being lost in the heat which escapes as a by-product in waste steam and other channels. Bodily heat is likewise a product of vital work. The living machine is far finer in the mechanism of its machinery than is any human device, and it is shown to be capable of utilizing in work one fifth of the total energy of the food, the remaining four fifths being accounted for in the by-product heat. When a large amount of heat is required to protect the body from cold, the increasing heat product which occurs naturally increases the disposition to work and the amount of work done. From this fact comes the wonderful energizing influence of cold weather. Warm weather, on the other hand, lessens the amount of heat production, and at the same time lessens the disposition to work and the amount of work done. This wonderful adjustment of the vital balance, which is performed automatically by the natural forces of the body, is essential for our welfare. It is a means by which Nature prevents the undue and dangerous expenditure of the bodily energies.

From the above facts, it is evident that instead of undertaking by artificial means to produce a fictitious feeling or appearance of health and vigor, one should, on the contrary, seek to follow Nature's suggestion by refraining from violent exertion and by the adoption of such means as will conserve the vital forces, avoiding an undue expenditure of energy. In other words, one should never force and stimulate the system when Nature says plainly that rest, re-recuperation, and refreshment are required, and wise is he who heeds her commands.

On the other hand, there are many cases in which the spring depression may be traced directly to overfeeding, a very common practice in the cold months of the year on account of the natural increase in appetite, the excessive use of sweets, rich foods, confectionery, and various other unwholesome articles. Such digressions are often tolerated during the winter months, but with the approach of spring, when there is a general letting down of the vital tone, the evil consequences become painfully apparent.

In this latter class tonics are quite unnecessary. It is essential that only the rich and greasy articles of diet, meats, animal fats, sweets, hot sauces, and indigestibles of various sorts, shall be laid aside at once. The dietary must be conformed to the natural standard. It should consist chiefly of fruits and grain preparations, particularly zwieback or bread, toasted wheat flakes, granose biscuit, and similar foods. Foods which contain albumin, as milk, eggs, and even nuts, should not be used too freely. In many cases, milk and eggs must be entirely avoided because of the difficulty experienced by many persons in digesting albumin and the casein in milk.

In these cases, and in fact, in most cases in which there is a spring "letting down," simple tonic measures afforded by natural healing agents afford prompt and efficient relief. A light, cold bath taken by means of a wet towel or the wet hands every morning, out-of-door exercise, electric-light bath, and the sun bath are ready means by which substantial benefit may be secured for this class of health-seekers.

THE PREVENTION AND CURE OF DRUNKENNESS[1]

BY DAVID PAULSON, M. D.

NO one will attempt to deny that alcoholism and its companion evils, the morphine, cocaine, and kindred drug-habits, are a blight and a blot upon our fair civilization.

They have increased so rapidly that conservative authorities estimate that there are now sixty thousand morphine fiends in Chicago alone. The *Chicago Tribune*, in a recent editorial, declares that there are a million drug fiends in the United States. Dr. Crothers, the eminent neurologist of Hartford, Conn., makes the statement, based upon extensive experience, that nearly ten per cent of American physicians are habitual users of morphine. And while we are discussing how to deal with them, these evils are marching on and their ravages are constantly increasing.

It may be stated as a fundamental principle that we must either raise the individual mentally, morally, and physically, above the necessity for the use of alcohol or else remove the tempting cup beyond his reach. The former plan is certainly more in accord with our American institutions.

Divine writ declares that the curse causeless shall not come. And modern medical science recognizes the fact that it requires seed-sowing to produce either a dyspeptic or a drunkard. The fact that many are born with strong predispositions for either condition, does not alter the principle, for they represent only an extended harvest from the sowing of their ancestors.

Dr. Lauder Brunton, a noted British physician, speaks of a drunkard who complained that the good people were always talking about his drinking but they never said anything about his thirst.

There can be no doubt that the craving for drink is largely created by artificial and unnatural habits of life, and this is particularly so in the matter of food and drink. Take an individual who has already either inherited or acquired a susceptibility to the drink evil, and feed him upon food saturated with mustard, pepper, and other fiery spices, and there will soon be created within him a thirst that the town pump cannot satisfy. It will not take him long to discover that the village saloon is the only place where this thirst can be quenched.

Disease cannot be abolished by closing the hospitals, neither would drunkenness disappear if all saloons were closed. The saloon is small temptation to the man who has no desire for liquor. The trouble is deeper seated than that.

The modern cook is frequently in league with both the saloon keeper and the undertaker. And who but ourselves is responsible for this situation? Science and inventive genius have invaded every other domain of human activity except the kitchen. There we still find the same pots, kettles, and skillets, and the same methods in vogue that were familiar to our great grandmothers.

The modern business man demands a good stenographer, a well-informed lawyer, and he even refuses to listen to any but an up-to-date preacher. But any ignorant girl, no matter how little she may know about the sciences of

[1] NOTE.—Extracts from a talk given before the Anthropological Society, Masonic Temple, Chicago, Jan. 11, 1903.

human life, or of dietetics, provided she has mastered the art of tickling the four square inches of taste surface, is considered a perfectly competent and satisfactory cook.

The divine admonition to eat for strength and not for drunkeness, is in no way fanciful, for there is an intimate relation between the question of dietetics and drunkenness. Many, and especially those who have not had actual experience in dealing with those addicted to the use of liquor do not realize the important part that the diet plays in the making and breaking of the liquor habit.

Several years ago there came under my professional care a young man belonging to one of the prominent families of Chicago. His father, proud of his son's talents and with high hopes for his future, sent him to Europe to have the advantages of the great educational institutions to be found there, but while there he contracted the drink habit. After his return to this country, the disappointed parent spared no means to have him sent to institutions where he might be cured of this habit, but all in vain. At last, when delirium tremens was setting in, he was brought to us. Meat, spices, and all food of a stimulating or irritating character was taken from him, and he was given only the simplest and plainest of food,— fruit with grain and nut preparations. The almost immediate result was that the terrible craving for liquor left him and he made rapid improvement in general health for several months. When he left for his home I warned him that if he went back to the old diet the taste for liquor would undoubtedly return.

He had been in Chicago only a day or two when a friend asked him to celebrate his return to health and home with a dinner at one of the first-class hotels. He accepted the invitation, ate the dinner, and when it was over he arose from the table and walked straight to the nearest saloon. Later in the evening he was picked up from the gutter, drunk. He had been eating for drunkenness instead of for strength and had reaped almost an immediate harvest.

Dr. Haig, the eminent English medical authority, in speaking of the relation of flesh-eating to the liquor habit, says: " Like morphine, cocaine, and alcohol, of which we have been speaking, meat itself is a stimulant, and this is the real cause of the difficulty which so many experience in giving it up. As regards nutrition there is no difficulty, for plenty of things can be found which will nourish the body quite as well or far better than meat."

Bad cookery is another important factor in the production of drunkards. Much of the bread that is served upon the average table, instead of being so thoroughly baked as to make it the " staff of life," is so doughy and indigestible within as to make it a menace to health. It is too much to suppose that the body has the power to perform such a miracle as to transform this dough into wholesome blood, sound brain, and strong muscle.

Next to it is, perhaps, the dish of pasty oatmeal mush which is cooked just the ten minutes specified on the package. Such a compound might do efficient service in pasting paper on the walls, but when plastered upon the inside of the human stomach it must, at least in susceptible cases, help to make victims of indigestion and the saloon.

Fried food which is so hermetically sealed by the grease that neither saliva nor gastric juice can act upon it, must necessarily be subject to various fer-

mentations which will manifest themselves in heartburn, and I was going to say, heartache. Many men resort to liquor to relieve the burning irritation produced by these abnormal acids. Some one has well said that the frying pan drums up trade for the sellers of bad whiskey.

Dr. Brunton says he believes that schools of cookery for the wives of workingmen will do more to abolish the drinking habit than any number of teetotal societies. The onward march of modern methods will undoubtedly assist much in solving this perplexing problem.

The popularity and commercial success of the modern prepared-food factories is an indication that the public are begining to arouse to the fact that there is no greater reason for preparing all their food at home than there is for making their own clothes in their own houses. The canning factory has already done away with much of the laborious work which was once done in our kitchens. The scientifically prepared cereal-food preparations are rapidly doing away with much of our time-honored cooking, and it is not difficult to imagine a day when the kitchen, as we know it, shall have become as much a relic of bygone days as the spinning wheel now is, but while it stays let us have the right kind of work done in it.

The popularization of physical culture also tends toward the abolishment of the liquor habit. For the man who is energetically and earnestly devoting his energies to his physical development will feel no necessity for resorting to such a nerve deceiver as alcohol or the patent medicines containing alcohol to secure the desired felicity and feeling of well-being.

Few realize the danger of patent medicines in this connection. We use $200,000,000 worth of the medicines every year, and nearly every one of them is from thirty to fifty per cent alcohol. There is no difference between the alcohol which is handed out over the drug-store counter and the alcohol which is handed out over the bar. The liver does not know the difference, the nerves do not know the difference, and the conscience is quieted only by the different label. Many people are just as dependent on the alcohol they obtain at the drug store in the form of patent medicines, as others are on the alcohol they obtain at the saloon.

Another preventive measure is the creation of social centers for the masses which shall take the place of the saloon. It has been said that the saloon is the poor man's club. It is light and warm and satisfies the longing of the human heart for social intercourse, and if it is to be abolished, something must be found to take its place without its degrading and debasing influence.

Above all things, there needs to be disseminated among the people the impressive truths in reference to the dignity and sacredness of the human body. Men and women need to be taught that the body is indeed the temple of the Divine.

(To be continued.)

STUDIES IN COSTUME

The Time of the Renaissance

BY ETHEL REEDER FARNSWORTH

THE beginning of the Renaissance and the accession of Henry VIII brought with them a complete alteration of the prevailing fashions. Though the rage for expensive material and elaborate modes still held sway, the form of the garments was decidedly altered. It was at this time that close-fitting garments began to be generally worn, and everywhere we see a tendency to follow the lines of the body, at the expense of comfort and sometimes even modesty.

GENTLEMAN OF 17TH CENTURY IN RUFF AND FELT HAT.

In the modes which were adopted, we can easily see the early types of the fashions which are still in vogue. Shoes became short and square at the toe. Men abandoned flowing robes and donned felt hats with brims, and women are pictured as wearing headdresses which can easily be recognized as the progenitors of the modern bonnet.

The heaviness and unwieldy thickness which characterized the English dress of this period is directly traceable to the growing commercial intercourse between the English and the Dutch.

The Renaissance is conspicuous for a marked tendency toward luxury and display. This desire for splendor took the form of processions, pageants, and all forms of gatherings which would afford an opportunity for the display of the magnificent personal adornment which was the rage.

Lewis S. Wingfield thus describes the dress of this period: "The Renaissance brought with it a general hankering after splendor in apparel, which at first took the form of complicated slashing and embroidery. The jacket being richly puffed, it became necessary, for the sake of completeness in *ensemble*, to puff the shoes, and also the tight hosen which connected these with the jacket. But here came a difficulty, for hosen puffed and loaded about the hips could not be made to fit well below the knees. This led to a dividing of the hosen into two parts, which were buttoned at the point of junction and covered there with a band which ultimately became the buckled knee band of knee breeches.

"Less tasteful than in preceding reigns, the costume of the sixteenth century was stiff and ungraceful, yet extremely rich and expensive. King Henry of the Golden Beard, handsome then, and young and *debonnaire*, eagerly fell in with the prevailing idea, in which he was no little abetted by Thomas Wolsey."

With the example and encouragement of the king and minister it is little wonder that the people ran into such ex-

THE DUKE OF MARLBOROUGH WITH WIG.

tremes that legislation upon the matter of dress soon became necessary. But though the king found it necessary to limit by law the money expended upon dress by his subjects, he seems to have felt no compunctions of conscience in gratifying his own vanity to the utmost. The following are a few items found in an inventory of his wardrobe: —

"One gown of crimson velvat, browdered with pirles, having a rich brocade border of sattin and pirles; upon the sleeve of the same gown twenty-eight diamonds set in golde, with twenty-eight pairs of aiglettes in golde." "A cote of shamewe, with much goldsmith's werke, set out with precious camerike (cambric); a pair of sweet gloves with orient stones and white velvat; also handkerchers, browdered with golde, enamelled."

Though we hear somewhat less of the tastes of James I, it seems fair to say that he contributed his share to the extravagance of the times. He is credited with introducing a new style of hat into England, and the following is a description of the dress of his famous favorite, George Villiers, Duke of Buckingham: "It was common with him at any ordinary dancing to have his clothes trimmed with great diamond buttons, and to have diamond hat bands, cockades, and earrings; to be yoked with great and manifold knots of pearl; in short, to be manacled, fettered, and imprisoned in jewels, insomuch that at his going over to Paris in 1625, he had twenty-seven suits of clothes made, the richest that embroidery, lace, silk, velvet, gold and gems could contribute; one of which was of white uncut velvet, set all over, both suit and cloak, with diamonds valued at fourteen thousand pounds, beside a great feather with diamonds, as were also his sword girdle, hat-band, and spurs." A character in a play published in 1607 thus describes the female attire of the times. "Five hours ago," he says, "I set a dozen maids to attire a boy like a nice gentlewoman, but there is such doings with their looking-glasses, pinning, unpinning, setting, unsetting, forming, and conforming; painting of blue veins and cheeks; such a stir with sticks, combs, casanets, dressings, purls, face squares, busks, bodices, scarfs, necklaces, carcanets, rabattoes, borders, ties, fans, palisadoes, puffs, ruffs, cuffs, pusles, fusels, partlets, fringlets, bandlets, amulets, bracelets, and so many lets (hindrances), that she is scarce dressed to the girdle, and now there is such a calling for fardingales, kirtles, bustpoints, shoe-ties, and the like, that seven pedlars' shops, nay all Stourbridge fair, will scarcely furnish her. A ship is sooner rigged by far than a gentlewoman made ready."

HEADDRESS OF 1780.

At the beginning of the seventeenth

century "luxury surpassed itself." It was considered very bad taste to wear the same dress twice at court. Even the plain Louis Treize of France when, to facilitate the movement of his army, he found it necessary to leave all baggage behind, was very much exercised as to how he was to spend three days with his sister, the Duchess of Savoy, and seem to be dressed in a different suit each day.

It was at about this time that it became the fashion to wear great masses of false hair, and the heads of men and women alike were surmounted by towering edifices of net, jute, and horsehair. The reason for this fashion is hard to discover. Perhaps the king of France or some other leader in the fashionable world found it expedient thus to cover his own thinning locks, and that the ruse might not be too plain, insisted upon his followers doing likewise. We

Lady in Wheel Farthingale.

are told that the ruff owed its introduction to a scrofulous royal neck, and it seems reasonable that the wig might have had a similar birth. However that may be, sure it is that wig-wearing became very much the fashion, and in the reign of George II we find a list of no less than ten different styles of wigs which were in general use.

This is but one example of the "make believe" dress of the time. An old magazine contains the following complaint from a newly wed husband, who insists that he married a "show." "Her headdress," he says, "measured eighteen inches, her shoes elevated her six inches. Her circumference decreased as alarmingly as her height; for on the removal of the stiff stomacher and hoop, the stately pyramid of silk and satin who had swept about all day, dwindled into an insignificant pigmy of half her artificial size." It is said that a lady of fashion who in full dress was six feet high, might be no more than four in dressing gown and slippers.

Some ladies had their headdresses, or "heads," made separate so that they could be put on and off at will, others built theirs upon their own heads, weaving their own locks into the artificial structure. In the *London Magazine* for August, 1768, is the following from a writer upon this subject: "I went the other morning to visit an elderly aunt of mine, when I found her pulling off her cap and tendering her head to the ingenious Mr. Gilchrist, who has lately obliged the public with an excellent essay upon hair. He asked her how long it was since her head had been opened and repaired. She answered, 'not above nine weeks,' to which he replied that *that was as long as a head could well go in summer*, and that therefore it was proper to deliver it now; for he confessed it began to be a little

hazarde." Mr. Wingfield assures us that the description of the opening of the head which follows is utterly unfit for repetition. Certainly such a practice is not in harmony with the best ideas of personal cleanliness, beauty, or health.

It is said that absurdity reached its highest in 1775 when the "Macaronies" came into existence. These were members or a once fashionable London club which introduced macaroni into England and thus gained for its members the name of Macaronies. "In dress they wore a toy cocked hat, gold-laced, buttoned, and tasseled, over hair fashioned into a foretop two feet high at least above the head, immense side-curls, and clubbed tail. Tight striped silk breeches, and an equally tight coat and waistcoat, kept their frail component parts together. Their white neck cloths displayed a front bow as large as a cauliflower; and they daintily walked about in white silk stockings and diamond-buckled pointed shoes in all weathers. Come rain, come rack, for a Macaroni to wear a great-coat was to confess his unworthiness to being a member of the august brotherhood."

QUEEN ELIZABETH.

The female Macaronies, or Macaroniesses, as they were called, "carried heads top-heavy with hair of their own and other people's — hats, feathers, and a world of knicknackery — windmills, ships in full sail, toy coaches drawn by four horses in spun glass. Their dress clung almost as closely to the body as did the gentlemen's to theirs. But they dragged after them a long gold-embroidered train, which gave them the aspect of the wheeling crocodile."

The dress for summer and winter was the same, and was made of the thinnest possible material. It is said that the clothing was often put on damp that it might cling still more closely to the body. In winter, a muff and a long fur boa were worn, but these were certainly very small protection when the rest of the body was so inadequately protected against the inclemency of the weather.

BUBONIC PLAGUE

BY F. J. OTIS, M. D.

BUBONIC plague has undoubtedly existed for many years in the far East, but the habits of the people and their exclusion from the rest of the world has kept the disease within certain limits, yet as commerce increases and those eastern countries come into closer touch with the western nations, the disease is approaching nearer our home shores, and becoming a subject of considerable interest to us. Already this disease exists on our own continent and threatens some of the towns of Mexico.

It is a disease caused by a little germ about the size of a typhoid-fever germ but not having the ability to swim about. Its nature is understood as far as it affects the human individual, but just how it is communicated from one to the other is not thoroughly understood. The germ enters through an opening in the skin, then passes along the lymphatics to the nearest gland, which it causes to swell very rapidly, the infection passes on through the glands, and eventually comes into the general circulation. The temperature rises very rapidly and a hemorrhagic condition is produced, so that there is sometimes profuse bleeding from the mucous membranes. It takes but a few hours or a day for the disease to reach its height. When the patient is delirious and prostrated with very high fever, he may enter a stage of unconsciousness. The glands first affected swell until they are quite large and necrotic in the center, so that if they are opened, a considerable amount of pus may be evacuated. The glands most affected are the axillary glands and those in the groin. Death usually occurs within forty-eight hours, but if the patient lives beyond this time the prognosis becomes better as the days go by.

On account of the great dread which has come over the people because of this disease, I will quote from Dr. Mc Farland the percentage of death according to the race affected. The disease has existed mostly among people who live in very unsanitary surroundings. "In the epidemic at Hong Kong in 1894, the death rate was 93.4 per cent for the Chinese; 77, for Indians; 60, for Japanese; 100, for Eurasians; and 18, for Europeans." These figures readily show that the Europeans are not any more susceptible to the plague than they are to typhoid fever, and the disease is no more dangerous than typhoid fever. Nevertheless we must learn through scientific effort the real way in which the micro-organism is communicated. We understand typhoid fever and yellow fever thoroughly, so those diseases are not so dangerous to us as they would be if we did not understand them. In bubonic plague we have a disease of which we understand the micro-organism and nature, but we do not know how it is carried.

It has been noticed that the disease spreads more rapidly when rats infest a community, yet the rats die rapidly of the disease and they do not harm human beings. It has been found that people must be wounded or have a little puncture in the skin before the germ can enter their system; consequently, it was supposed that the fleas which are found on the rats carried the germ from them to man, but naturalists upon investigating the subject have come to the conclusion that the fleas which live on rats bite

only rats and do not trouble human beings. There must then be some other way of transmitting the germ from the bubonic sufferers to their associates, and until this is found we must regard the disease as a very dangerous one, yet should it gain a foothold within our shores we would expect only the unsanitary districts of our cities to suffer to any great extent.

It will not be surprising if within the next few years, we understand it so thoroughly that it will appear as simple as yellow fever, which has killed thousands of people in our own country and in the tropics, when had it been known that the mosquito carried the germs of disease, and that all that was necessary to prevent its spread was to protect each victim from the mosquito, those epidemics might have been avoided.

Dr. Barker, a member of the Philippine commission appointed by this country to investigate the yellow fever, stated at a reception tendered the commission by Dr. Osler, that the habits of the people certainly constitute the chief consideration in the spread of the disease in that country. He noted that when one individual died it was the custom for the others, in taking their final parting, to caress the dead friend, and to so conduct themselves as to make it almost certain that the germ would be transferred directly from the dead to the living. The custom which prevails in India of making one water-source in the center of the little towns suffice for bathing, drinking, and other household uses, is another very efficacious means of communicating the disease.

The scientists who have worked with this plague have not found any very great danger when the usual bacteriological precautions have been carried out, yet the least carelessness has brought its suffering to the scientist, so we feel very certain that the micro-organism is communicated very rapidly, and that it retains its virulence for some time.

Flies are known to carry disease, and Dr. Yersin, one of the first to study the germ, was able to get it from a fly after crushing the little insect in some culture media. From investigations that were made in the army, it is thoroughly understood that flies sometimes travel quite a distance and carry the germs from garbage heaps to the mess tents, so it would be very possible for flies to carry the germs from the homes of the sick to the dining tables of the well, but it has not been proved certainly that the micro-organism can enter the system through the digestive tract, for the hydrochloric acid of the digestive fluid usually destroys it so that it cannot go further than the stomach.

People who live according to the plan "cleanliness next to godliness," usually live above the possibility of such disease, and the modern sanitary home need not fear greatly on account of it, knowing that they are practically carrying out all that is known as far as the home is concerned to prevent its entry.

It will be necessary at present for us to leave this problem to the health officers and sanitarians of the country, who are well able to handle it, and who no doubt will do all that science and reason command.

ROUND SHOULDERS AND FLAT CHESTS

BY J. W. HOPKINS

THE fourth class of Swedish Gymnastic exercises, is that given to correcting round shoulders and flat chests. This class of exercises, or shoulder-blade movements, consists of exercises with the arms, taken in such positions of the body as will cause the weak muscles, not only of the shoulders, but also the deeper muscles of the back to be developed. Shoulder-blade movements are of two classes, those which widen the chest and shoulder girdle, and those which broaden the back and straighten the upper part of the spine. If we examine a person with round shoulders — one who needs these exercises — we find the pectoral muscles shortened and the trapezius and other shoulder retractors relaxed and lengthened. The back is crooked, especially in the upper part, there being an anterior posterior curvature of the spine; the head droops and the chest is flat.

FIG. 1.

This condition is due not so much, perhaps, to a lack of exercise, as it is to bad working and resting positions. Round shoulders and flat chests are found nearly as often among farmers and those accustomed to outdoor life, as among clerks, bookkeepers, and other indoor workers. The farmer at his plowing, sowing or reaping generally stoops. The ordinary working position, whether of sawing, or planing at the bench, studying, writing, or even riding and driving is generally that of Figure 1. And when a person rests he usually assumes an attitude which, instead of correcting this evil, makes it worse.

This position is really a deformity. It greatly detracts from the personal appearance. For what person is graceful or dignified who walks with drooping head, with his chest behind instead of in front of him, and his shoulders thrown forward. This also cramps the heart, lungs, and all the vital organs. The ribs are compressed, the breathing is shallow because there is a lack of room, the stomach, liver, and intestines are crowded downward, and the action of the heart is greatly interfered with. But when one has always worked with his back straight, as in Figure 2, the organs can perform their functions properly. The blood is not congested in them, but courses freely, thus up-building and making them healthy.

To get away from this condition, the first thing to do is to correct one's position. This, with deep breathing, as shown in March GOOD HEALTH, will relieve the majority of cases. Espe-

FIG. 2.

cially should the children be taught, both at home and at school, to sit straight and tall, to walk erect with the head back, and to breathe deeply all the time. Teach them that if they wish to relax and rest, they must do so in a reclining, not a sitting, position. While their minds are young is the time to fix the habit. And quicker and more lasting results will be seen if the work is begun when the bones are easily shaped, and the muscles more easily trained.

To get the correct standing position: Stand against the wall facing the center of the room, place the heels, hips, shoulders, and back part of the head firmly against the wall. Reach downward with the arms as far as possible, holding them to the sides with the thumbs turned outward. The door is better than the plastered wall, as there is no baseboard and the surface is smooth. It is well to count mentally or aloud during the movements, so that they will be taken regularly. The counting should be at the rate of one each second.

While standing in this position, take ten deep breaths, filling the lungs as full as possible and drawing the abdominal muscles in. Try to make each breath a little deeper than the breath preceding it, if possible. Slowly count four while breathing in, and the same number while breathing out

Stand with heels, hips, shoulders, and head against the wall. Roll the head backward as far as possible, allowing the chest at the same time to move forward, but keeping the heels and hips firmly against the wall. Return to position. Repeat this movement five to

FIG. 3.

FIG. 4.

ten times, breathing in while the head is slowly moving backward, and breathing out while the head is slowly moving forward. When the chest is lifted and the shoulders are the length of the head away from the wall, keep them in this position, and raise the head. The body is now in a correct standing position. The chest is high, the head is erect, the abdominal muscles are slightly contracted, and the viscera are lifted to their natural position.

Another exercise for correcting round shoulders is arm circumduction. Stand away from the wall in the position above described, but with the arms extended sideways, shoulder high and pressed back a little. Now describe small circles with the finger tips and arms, forward, upward, backward, and downward, about ten times. Breathe in as the arms are moved forward and upward, and out as they move backward and downward. Then rest a moment and reverse the movement, taking them in this direction about six times.

Another good exercise is the swimming movement. Stretch the arms forward, palms facing each other, fingers straight. Keeping the arms shoulder high, fling them sideways, a little back of the shoulders, turning the palms backward at the same time. Then bend them, so that the elbows will be pressed back, and the hands palms down in front of the chest. Finally thrust the arms forward to the starting position. Take this about six or eight times, being careful to hold the head erect during the movement.

FIG. 5.

These exercises correct the deformities as far as the superficial muscles are concerned, but to strengthen the deep muscles of the back and straighten the spine, the movements should be taken in a lying position. Lie face downward with the hands on the hips; raise the head as far as possible, and hold the position while you count eight, then return to resting position. Take a few deep breaths and repeat the exercise, gradually increasing the number of counts until the head can be held backward while counting fifteen or twenty. Repeat the exercise from five to twenty times.

Lying on the face with the hands on the hips, raise the right leg backward, keeping the knee straight and the foot extended. Return to position, then raise the other leg. Do this six to eight times with each leg.

Raise the head and right leg as in above exercises. See Figure 4. Return to position, breathe deeply six to eight times, and repeat with the left leg, holding the position while counting from five to ten. The swimming exercise is excellent if taken in this forward-lying position with the feet supported under a table or held to the bed by a strap. See Figure 5. Then the upper part of the trunk as well as the head can be lifted, and the swimming exercise taken as before described.

With these thorough exercises to correct the stoop, movements should also be combined to strengthen the abdominal muscles so that the lower part of the spine will not become curved forward too much, making a swaybacked appearance.

This is one valuable feature of the Swedish System, that a careful watch is kept over the development of all parts of the body. At the same time that the shoulder muscles are trained the abdominal and side waist muscles receive attention, and the strength of the chest is also increased by proper work. In fact, the whole body is progressively developed.

CLOSED WINDOWS

BY ERNEST WENTWORTH, M. D.

IT was an afternoon in early spring, but a southerly wind had made the air warm and balmy. The sun shone brightly. Nature was in a pleasant mood, and to me she proved irresistible; I wished for the exhilaration of a long brisk walk.

"Ah, there will be no one at home this beautiful afternoon!" I thought as I neared the home of a friend, but decided to ring the bell just to show my good intentions. The ring was answered by my friend, to my satisfaction even if it had spoiled my prophecy.

"Oh, I am so glad you called!" she exclaimed. "I am having one of those awful colds that seem to be going around. I dare not go out for fear I may have pneumonia. I have got to take good care of myself. Last night I thought sure I was going to have the croup, you know I do sometimes, so I put turpentine and lard on my throat and chest, and took croup pills and medicine to reduce fever. I escaped having the croup, but am feeling miserable."

"By the way!" she exclaimed as she

ushered me into the sitting room, "Can you smell boiled dinner? We had one yesterday, and to-day made the remainder into hash."

As the smell of said dinner was so very pronounced, I must acknowledge that I did or that I also had a severe cold, so I frankly remarked — "Well, I should say I did."

But my thoughts on the subject, and the agony I endured out of courtesy during that short call, I kept to myself.

There were five people in the small room, and not a window in the house opened as much as a quarter of an inch, and had not been since some of the warm days of summer.

The other callers and my friend related their afflictions and those of others — how this friend had been taken to the hospital and there died of an operation, how the next-door neighbor lay dead of heart disease, and one just around the corner of typhoid fever.

As I came out into the pure air I thought how much better I should have felt if I had kept to my walk.

Oh, how many on this beautiful earth need to be taught a few simple laws of health! If more pure air were allowed in the home, cupboard and medicine-chests would not show such arrays of bottles, and colds would not "be going around" so much.

HEALTH AND GOOD CHEER

BY J. H. KELLOGG, M. D.

GOOD cheer has wonderful power to help the sick get well. Solomon says: "A merry heart doeth good like a medicine." A merry heart and a merry countenance go together.

We encounter disagreeable things, but it does not make it a bit better to talk about them. Why not make up our minds that we will not? We all like sympathy, but how many of us like to sympathize with others. We prefer to have other people keep their skeletons in their closets, but we are very apt to exhibit our troubles and complaints before the world, hoping for sympathy.

One can manufacture as many symptoms as he wishes. He can cultivate disease as easily as he can cultivate anything else. He can also cultivate health if he will. The mind-cure doctors put it in this way:—

"Seek health, and health will find you
As certain as the day.
Disease will lag behind you,
And lose you on the way."

This is a pretty good sentiment, and I am sure there is a great deal in it.

Of course the germs of disease are many times present, and fear being a depressing agent, it brings the system down to a level where it cannot resist the attacks of germs, and they get a foothold and cause disease.

When one becomes frightened or very angry, his face often turns pale. Why are these emotions so productive of disease? — Simply because they are so depressing that they interfere with the normal activities of the functions of life, and lessen the power of the body to resist disease.

On the other hand, hope and good cheer have the effect to enliven all the processes of life, to quicken the heart-beat, to increase the play of nerve impulses through the body, and also facilitate the play of all the vital functions. So hope and good cheer are things that every one should cultivate. We ought to make it our business to make sun-

shine. Sometimes there are clouds in the sky, but there is always sunshine beyond the clouds. When it is dark without, it is all the more necessary to make sunshine within. When you look into a mirror, you see the reflection of your face, and when you come into a room where there are many mirrors, your face will be reflected many times. Now our faces are like mirrors; they reflect the joy or gloom which comes before them. Suppose a person comes in with a very sad face; his face casts a gloom over us all. Another person enters, his face shining with good cheer, and he brings in influence which you feel striking down in your heart.

We must think cheerful thoughts as much as we think of living properly and behaving ourselves with propriety before the world; we should consider it a privilege as well as a duty to do it. But there are many who become so depressed by disease that they think there is no hope for them, either here or hereafter, and they lie down in the lap of an infinity of misery and give themselves up to suffering and sorrow. I wish to exhort such to look up. And why should we look up? In the first place, there is a Great Physician who wants to heal every sick person. He made us, cares for us, and dwells within us. If we are sick, he is trying to heal us, and is always doing the best he can consistently do for us.

You may sometimes have been in perplexity, and longed for someone to tell you the right thing to do. Remember that God knows the end from the beginning, and he knows what you ought to do. If you are in distress or in need, and are willing to do the right thing, and are ready to be guided, God will lead you in the right direction. The great thing is to recognize your need. If you do this and ask help of the Great Father, he will do the best that can be done for you, and will give you help in proportion as you recognize your need. We reap what we sow. If we sow for righteousness and divine help, we shall get that very thing; and we shall get all the help we are prepared to receive.

God works through agencies, but it is he that works. The physician does not heal you; the treatments do not heal you; it is the divine power working through all the agencies employed here that heals. I entreat all to lay hold of this great Source of comfort and cheer; and if you feel disheartened and gloomy, just look up, for there is a great God who is able to do for you all you need to have done.

If you can truly say; "Lord, I want to be in the divine order; I want to appropriate all that is good and sweet and pure and beautiful in the way of right living," and lay hold of God thus, you may get all the help you can possibly receive and use.

If you are sad and despondent, tell God about it, and he will listen to you and comfort you when no one else will, so you need not feel that you are alone.

I wish this thought would find its way into every one's mind, — God is a father, a brother, and a friend; that he is not an angry God who arbitrarily chastises us for our sins by causing us sorrow and pain. Our sufferings are in general the consequence of our own wrongdoing, and God is doing all he consistently can to heal us of the results of it, converting and restoring us as far as we will let him, and will co-operate with him.

Better to hunt in fields for health unbought,
Than fee the doctor for a nauseous draught,
The wise for cure on exercise depend;
God never made his work for man to mend.

John Dryden.

RATIONAL METHODS
In the Sick Room

THE HOME CARE OF FEVER CASES

The Reduction of Temperature

ELEVATION of temperature is the most striking characteristic of fever; hence the treatment for the reduction of temperature is a matter of primary importance. It should be known, however, that fever is not necessarily destructive in its influence. It is only when the febrile process rises to an extreme degree that it becomes in itself harmful. Careful investigations have shown that the fever is a part of the curative process, aiding in the development of neutralizing substances which destroy the germ poisons,— really the chief source of danger.

It is practically impossible to reduce the temperature of the fever patient to the normal without the use of measures so extreme as to endanger the patient. The reason of this is, that in the state of fever a new standard of temperature is established which is considerably higher than the normal standard. The normal fever temperature has been determined to be from 101° to 102° F., or about three degrees higher than the temperature of health. As long as the temperature does not rise above this point, the curative process may be considered as proceeding in a natural way toward recovery. When, however, as is generally the case in fever, the temperature rises higher, it is an indication that the disease process is progressing with dangerous intensity, and effective measures should be applied at once and continued until the temperature is brought within the normal fever limit.

We are now brought to the discussion of proper measures for lowering the temperature in fever:—

The Wet-Sheet Pack.— Without doubt, the wet-sheet pack is the most generally serviceable and efficient measure which can be used for the reduction of temperature. Sheets and water at ordinary air temperature are always available. What is known as the cooling pack should be applied. The patient is wrapped in the wet sheet and covered with a single blanket. As soon as the sheet is warmed, it is replaced by a freshly cooled sheet, and this again by another as soon as it approaches the temperature of the skin. This process is continued until the sheet is no longer quickly warmed, or until the temperature of the blood has been lowered, as indicated by shivering.

In obstinate cases it may be necessary to continue these cooling packs for two or three hours, or even longer. Generally, however, five or six changes will be sufficient to lower the temperature one or two degrees, or below 102° F.

In employing the wet-sheet pack, it is important to remember that the pack should be carefully covered by at least a single flannel blanket. No attempt should be made to increase the cooling by allowing evaporation from the surface of the sheet. This produces slow chilling of the surface and contraction of the blood vessels, the opposite of which is desired. The sheet should be covered so that reaction will take place. With the reaction, the surface vessels are

dilated, and the blood is thus brought to the surface where it may be cooled by contact with the cool sheet. It is also injurious to leave the sheet in contact with the skin after the body temperature has been raised, as superheating may thus occur, so that the fever may be actually increased. As soon as the sheet is warm, it should be replaced by another. The first sheet may be warmed in six or eight minutes. The second sheet will probably require a longer time, — ten or twelve minutes; the third, perhaps, fifteen minutes; the fourth, twenty minutes; the fifth may require a still longer time, which will indicate that the effect desired has been obtained.

If the warming of the sheet does not occur quite promptly, reaction may be encouraged by rubbing the surface of the sheet with the hands placed beneath the blanket, but the sheet should never be left uncovered, even for a moment, and changes should be made as quickly as possible.

By the systematic employment of this valuable cooling measure from the commencement, the duration of most fevers may be very materially shortened, and its mortality enormously lessened, while the suffering and inconvenience may be diminished to an almost incalculable degree. If, however, the cooling measure is not resorted to until after the patient has been sick for several days, it may be found quite difficult to control the fever, and the best results may not be obtained.

In such neglected cases, it is only by the most persistent efforts that the intensity of the disease process may be controlled, and the fever rendered manageable. Failure to obtain immediate success should not, however, lead to discouragement and abandonment of the method as useless or inefficient; experience in a vast number of cases has shown that the cooling wet-sheet pack is capable of lowering the temperature *in every single case*, if properly and persistently employed.

The Cold Bath. — A bath for fifteen minutes at 68° F. is the method generally employed in Germany for reducing temperature in fevers. The patient sits in a bath of from four to six inches of water. Two attendants rub his back and legs, pouring colder water upon his head and spine at intervals of three or four minutes. At intervals of a few minutes the patient lies down in the tub for a few seconds. The rubbing is vigorous and continuous, the purpose being to keep the blood in the skin so that it may be rapidly cooled. When the patient begins to shiver, he is taken out and put to bed. The temperature usually falls in the bath or immediately afterward. As soon as the temperature exceeds 102°, the bath is repeated. Several baths are given daily, if necessary. A German physician has collected records of eight hundred cases of typhoid fever treated by this method without a death. The mortality in several thousand cases of this disease was only three per cent, while the ordinary mortality is about twenty per cent. If the cold-bath treatment could be generally introduced and applied with thoroughness from the beginning of the disease, few persons would die of this malady.

The Graduated Bath. — Another method which is certainly less disagreeable and is perhaps fully as efficacious, is the graduated bath. The patient is put in a tub of water at about 100° F. The temperature of the water is rapidly lowered to 90° F., and is then lowered at the rate of one degree every two minutes until the temperature of the bath is 75° F. By this time the temperature will usually have fallen to a

safe point; that is, less than 102°. By frequent rubbing, the patient will be easily able to bear the bath without chilling, and there is no severe shock as in the cold bath.

On the whole, it is doubtful whether either the cold or the graduated bath is really inferior to the wet-sheet pack as a cooling means. There are probably cases in which the bath might be superior to the pack, and the reverse.

The Wet-Sheet Rub.— By spreading a rubber sheet under the patient, a cold wet-sheet rubbing may be administered. The sheet, well wet, is passed under the patient and over a rubber sheet which is placed so as to protect the bed. This is wrapped about the patient, and rubbing is applied outside the sheet until it is well warmed. It is then removed and replaced by another, the process continuing until the patient shivers, or until the temperature falls one or two degrees, as shown by the body thermometer placed in the patient's mouth. The sheet may be cooled by sprinkling with cold water, or even iced water, thus avoiding the inconvenience to patients occasioned by frequent changing of the sheet.

The Cooling Compress.— A large cool compress covering at least one fourth the entire surface of the body, is a most effective cooling measure which should be applied during the intervals between more vigorous measures. The compress should be covered with flannel so that it will not be chilled by evaporation. As soon as a compress is decidedly warmed, it must be renewed, so that the body heat may not accumulate.

Either the large compress or a smaller abdominal compress should be applied constantly in typhoid and all other continued fevers, so as to favorably influence the processes taking place in the abdominal cavity, aiding the cells in their battle against the germs which are chiefly active in this region.

The Cool Enema.— The cool water enema is an efficient means of reducing temperature, which is useful in connection with other measures, especially when patients have a great repugnance to cold applications to the skin. Two or three pints of water should be used at a temperature of 70° to 80°. A lower temperature is likely to produce tenesmus, and too quick discharge of the water. The water should be injected slowly, and should be retained for ten to fifteen minutes, if possible. When discharged, a like quantity should be introduced, and this procedure should be repeated until the temperature is reduced a degree or two, or until the patient shivers. A hot bag at the pit of the stomach prevents uncomfortable chilling.

In certain cases the fever seems to yield more readily to the cool enema than to any other means, although in general this is a less reliable measure for reducing temperature than the cooling pack or the cool bath.

Hot Applications to Reduce Temperature.— In cases in which the surface is blue and cold, the application of a hot blanket pack for five minutes, or hot sponging until the surface is reddened, often reduces the temperature more quickly than a cold application. The hot application may be succeeded by a cold application such as the rubbing sheet or the cooling pack, with most excellent effect.

Temperature-lowering Drugs. — It is safe to say that these drugs of which antipyrine is chief, are never needed when the resources of hydrotherapy are available. Drugs lower the temperature only at the expense ot the vitality of the patient, weakening the heart, and

increasing the danger of kidney and liver complications. Alcohol is never required to "strengthen the heart," nor for any other purpose. All that can be accomplished by alcohol, or that it is expected to do, can be done a great deal better by suitable applications of cold water. Cold rubbings, and especially cold applications over the heart, are far better heart tonics than alcohol or any other known drug.— J. H. K.

Corns and Bunions.

These are not confined to the sick room, but they are, nevertheless, inconveniences for which natural methods afford in many cases very great relief. The first measure to be adopted is the removal of pressure. Both bunions and corns are the result of undue pressure. This may be accomplished by a suitable adjustment of the shoe or other foot-covering in many cases, but sometimes it is necessary to apply what are known as bunion-plasters and corn-plasters. By this means, the pressure may be made to fall upon the sound and non-sensitive tissues lying around and outside of the affected parts.

Inflammatory conditions, whether affecting the bunion or corn, may be marvelously relieved by proper hydriatric applications. If the corn or bunion is painful, it should be soaked in hot water for fifteen or twenty minutes, or until relieved. A strip of linen cloth eight inches wide and two feet long should then be applied, after wetting in cold water and wringing quite dry. The linen should be made to fit snugly and should be covered first with mackintosh and then with flannel or cotton batting so that the wet cloth may be rapidly heated. This application is made on retiring at night and should be worn during the night. In the morning the affected parts should be bathed in cold water for half a minute, and friction applied until the circulation is well established.— J. H. K.

Worms.

There are several parasitic worms which affect the alimentary canal. Some are large and some are small. The largest of these is a tapeworm which sometimes grows to a hundred feet in length. The tapeworm lives in the small intestine. It cannot live in the stomach for any length of time for the reason that it would be digested by the gastric juice.

There are several varieties of tapeworm. The most common is a parasitic worm derived from the ox. It appears in the embryonic state. When the meat is eaten, these minute creatures attach themselves to the intestinal walls and rapidly develop, sometimes to large proportions.

Another variety of tapeworm is derived from the pig. This, however, is less common than the beef tapeworm. There are various other parasitic worms of minor importance as they produce much less disturbance when present than does the tapeworm. Several small worms which occupy the rectum must be included in this class.

Parasitic worms, whether found in either the large intestine or the small intestine, must be destroyed by remedies which are capable of killing the worm without seriously affecting the body in general. There are numerous remedies of this sort, but they cannot be properly employed except under the supervision of a wise physician. The most important thing to note is, that persons who abstain from flesh foods of all sorts are far less liable to suffer from these intestinal parastites than are the consumers of meat, since the worst parasites are

derived from flesh foods,—beef and pork.

In the use of flesh, undigested meat residues are found in various parts of the alimentary canal, particularly the colon. These encourage the growth and development of parasitic worms, hence a nonflesh dietary is to be highly commended in cases of this sort as a means not only of avoiding new infection but as a valuable help in the direction of a cure.

Many smaller parasites which inhabit the colon are cured by the use of a decoction of quasi chips. The colon should be washed out by a pint of warm water, and a pint of moderately strong solution of decoction of quasi chips should be introduced into the colon and allowed to remain for half an hour before being passed off.

Mothers often suppose their children to be suffering from worms, and injure them by continually dosing them with so-called "worm medicines" when in fact they are not suffering at all from this source. The symptoms ascribed to worms are often present in other maladies. Indigestion accounts for nearly all symptoms ordinarily attributed to worms. There is one symptom of worms which can be relied upon, and that is, worms. The daily discharge should be carefully examined, and evidence of the presence of worms should be obtained before a course of medication treatment is begun.—J. H. K.

Food for the Sick.

There is no branch of the culinary art which requires more skill than that of preparing food for the sick and feeble. The purpose of food at all times is to supply material for repairing the waste which is constantly going on in the vital economy; and hence it ought always to be chosen with reference to its nutritive value. But during illness and convalescence, when the waste is often much greater and the vital powers less active, it is of the utmost importance that the food should be of such a character as will supply the proper nutrition. Nor is this all; an article of food may contain all the elements of nutrition in such proportions as to render it a wholesome food for those in health, and not be a proper food for the sick, for the reason that its conversion into blood and tissue lays too great a tax upon the digestive organs. Food for the sick should be palatable, nutritious, and easily assimilated. To discriminate as to what food will supply these requisites, one must possess some knowledge of dietetics and physiology, as well as of the nature of the illness with which the patient is suffering; and such a knowledge ought to be part of the education of every woman, no matter to what class of society she belongs.

Hot buttered toast, tea, rich jellies, and other dainties so commonly served to the sick, are usually the very worst articles of diet of which they could partake. As a rule elaborate dishes are not suitable.

Scrupulous neatness and care in all the minute particulars of the cooking and serving of food for invalids, will add much to its palatableness. The clean napkin on the tray, the bright silver, and dainty china plate, with per- a sprig of leaves and flowers beside it, thinly sliced bread, toast or cracker, and the light cup partly filled with hot gruel, are far more appetizing to the invalid than coarse ware, thickly cut bread, and an overflowing cup of gruel, though the cooking may be just as perfect. So far as practicable, the wants of the patient should be anticipated, and the meal served, a surprise.—E. E. K.

SCIENCE In the Kitchen

THE HOUSEHOLD WORKSHOP

IT is a mistake to suppose that any room, however small and unpleasantly situated, is "good enough" for a kitchen. This is the room where housekeepers pass a great portion of their time, and it should be one of the brightest and most convenient rooms in the house; for upon the results of no other department of woman's domain depend so greatly the health and comfort of the family as upon those involved in this "household workshop." The character of a person's work is more or less dependent upon his surroundings; hence is it to be greatly wondered at that a woman immured in a small, close, and dimly lighted room, whose only outlook may be the back alley or the woodshed, supplies her household with products far below the standard of health?

Every kitchen should have windows on two sides of the room, and the sun should have free entrance through them, for light and fresh air are among the chief essentials to success in all departments of the household. Good drainage should also be provided, and the ventilation of the kitchen ought to be even more carefully attended to than that of a sleeping room. It should be so ample as to thoroughly remove all gases and odors, which generally invade and render to some degree unhealthful every other portion of the house.

To lessen the discomforts from heat, a ventilator may be placed above the range, which shall carry out from the room all superfluous heat, and aid in removing the steam and odors from cooking food. The simplest form of such a ventilator is an inverted hopper of sheet iron fitted above the range, the upper and smaller end opening into a large flue adjacent to the smoke flue for the range. Care must be taken, however, to provide an ample ventilating shaft for this purpose, since a strong draft is required to secure the desired results.

Undoubtedly much of the distaste for, and neglect of, housework, so often deplored in these days, arises from unpleasant surroundings. If the kitchen be light, airy, and tidy, and the utensils bright and clean, the work of compounding those articles of food which grace the table and satisfy the appetite will be a pleasant task, and one entirely worthy of the most intelligent and cultivated women.

It is desirable, from a sanitary standpoint, that the kitchen floor be made impervious to moisture; hence, concrete or tile floors are better than wooden floors. If wooden floors are used, they should be constructed of narrow boards of hard wood, carefully joined and thoroughly saturated with

[THIS department is to be a permanent feature of the magazine, and as its heading suggests, it will be devoted to the discussion of subjects relating to the selection and preparation of healthful food, and other matters appertaining to the work of the kitchen.

It is the design to make the department as practical and helpful as possible, and to this end readers are invited to send us suggestions, questions, recipes, or descriptions of methods which they have found helpful.—ED.]

hot linseed oil, well rubbed in to give polish to the surface.

Cleanliness is the great desideratum, and this can be best attained by having all woodwork in and about the kitchen coated with varnish; substances which cause stain and grease spots, do not penetrate the wood when varnished, and can be easily removed with a damp cloth. Paint is preferable to whitewash or calcimine for the walls, since it is less affected by steam, and can be more readily cleaned. A carpet on a kitchen floor is as out of place as a kitchen sink would be in a parlor.

The elements of beauty should not be lacking in the kitchen. Pictures and fancy articles are inappropriate; but a few pots of easily cultivated flowers on the window ledge or arranged upon brackets about the window in winter, and a window box arranged in a jardinière, with vines and blooming plants in summer, will greatly brighten the room, and thus serve to lighten the task of those whose daily labor confines them to the kitchen.— E. E. K.

Asparagus, Its Preparation and Cooking.

Select fresh and tender asparagus. Those versed in its cultivation, assert that it should be cut at least three times a week, and barely to the ground. If it is necessary to keep the bunches for some time before cooking, stand them, tops uppermost, in water about one-half inch deep, in the cellar or other cool place. Clean each stalk separately by swashing back and forth in a pan of cold water till perfectly free from sand, then break off all the tough portions, cut in equal lengths, tie in bunches of half a dozen or more with soft tape, drop into boiling water barely sufficient to cover, and simmer gently until perfectly tender.

If the asparagus is to be stewed, break (not cut) into small pieces; when it will not snap off quickly, the stalk is too tough for use.

Asparagus must be taken from the water just as soon as tender, while yet firm in appearance. If boiled soft, it loses its flavor and is uninviting. It is a good plan when it is to be divided before cooking, if the stalks are not perfectly tender, to boil the hardest portions first. Asparagus cooked in bunches is well done, if, when held by the thick end in a horizontal position between the fingers, it only bends lightly and does not fall heavily down.

The time required for boiling asparagus depends upon its freshness and age. Fresh, tender asparagus cooks in a very few minutes, so quickly, indeed, that the Roman emperor, Augustus, intimating that any affair must be concluded without delay, was accustomed to say, "Let that be done quicker than you can cook asparagus." Fifteen or twenty minutes will suffice if young and fresh; if old, from thirty to fifty minutes will be required.

Stewed Asparagus. — Wash, break into inch pieces, simmer till tender in water just to cover, add sufficient rich milk, part cream if convenient, to make a gravy, thicken slightly with flour, a teaspoonful to a pint of milk; add salt if desired, boil up together and serve.

Asparagus with Egg Sauce. — Prepare and cook asparagus as directed above. When tender, drain thoroughly, and serve on a hot dish or on slices of nicely browned toast, with an egg sauce prepared in the following manner: Heat a half cup of rich milk to boiling, add salt, and turn into it very slowly the well-beaten yolk of an egg, stirring constantly at the same time. Let the whole just thicken, and remove from the fire at once.

Asparagus with Cream Sauce. — Thoroughly wash, tie in small bunches, and put into boiling water; boil till perfectly tender. Drain thoroughly, untie the bunches, place the stalks all the same way upon a hot plate, with a dressing prepared as follows: Let a pint of sweet cream (about six hours old is best) come to the boiling point, and stir into it salt to taste and a level tablespoonful of flour rubbed smooth with a little cold cream. Boil till the flour is perfectly cooked, and then pass through a fine wire strainer.

Asparagus on Toast.—Cook the asparagus in bunches, and when tender, drain and place on slices of nicely browned toast moistened in the asparagus liquor. Pour over all a cream sauce prepared as directed above.

Asparagus Points. — Cut off enough heads in two-inch lengths to make three pints. Put into boiling water just sufficient to cover. When tender, drain off the water, add a half cup of cream, and salt if desired. Serve at once.

Prunes.

Several inquiries have been sent us concerning prunes and their value as food, and the following recipes may help some perplexed housewife. The prune is a species of plum, dried, and when properly cooked is one of the best of dried fruits. The larger and sweeter varieties are generally selected for drying.

Use only the best selected prunes. Clean by putting them into warm water; let them stand a few minutes, rubbing them gently between the hands to make sure that all dust and dirt is removed; rinse, and if rather dry and hard, put them into three parts of water to one of prunes; cover closely, and let them simmer for several hours. If the prunes are quite easily cooked, less water may be used. They will be tender, with a thick juice. The sweet varieties need no sugar whatever. Many persons who cannot eat fruit cooked with sugar, can safely partake of sweet prunes cooked in this way. A slice of lemon added just before the prunes are done, is thought an improvement.

Prune Marmalade. — Cook sweet California prunes as directed above. When well done, rub through a colander to remove the skins and stones. No sugar is necessary. If the pulp is too thin when cold, it may be covered in an earthen pudding dish and stewed down by placing in a pan of hot water in a moderate oven.

Prune Whip.—Press through a colander some stewed sweet California prunes which have been thoroughly drained from juice, and from which the stones have been removed. Beat the whites of three eggs to a stiff froth, and add two cups of the sifted prunes; beat all together thoroughly; turn into a pudding dish, and brown in the oven fifteen minutes. Serve cold, with a little cream or custard for dressing. Almond sauce also makes an excellent dressing if one cares for it.

Prune and Tapioca Pudding. — Soak one half cup of tapioca over night. In the morning cook until transparent in two cups of water. Stew two cups of well-washed and stoned prunes in a quart of water till perfectly tender; then add the juice of a good lemon and two tablespoonfuls of sugar, and boil till the syrup becomes thick and rich. Turn the prunes into a pudding dish, cover with the cooked tapioca, and add a little grated lemon rind. Bake lightly. Serve without dressing or with sugar and cream or almond sauce. If preferred, the prunes and tapioca may be placed in the dish in alternate layers, having the top one of tapioca.

WHAT A FATHER CAN DO FOR HIS DAUGHTER

THE following extract is from an article upon this subject by Harry Thurston Peck, which appeared in the February number of the *Cosmopolitan*. The article is especially addressed to the fathers of little daughters, but there is much in it which would prove helpful to fathers in general and mothers as well: —

"It is not a father's mere devotion that really counts, great though it may be and perfect in itself. It is the outward expression of devotion which must always be the most important phase of it — an expression that shall take some form of service, and, equally with the mother's, help to assure a happy future for the child. The mother-love can find a thousand ways in which to transmute itself into efficient care and helpfulness. Can the father do nothing save to stand aside and watch admiringly but helplessly the evolution of a character in whose molding he can have no share? Or is there something left for him to do which no one else can do so well, and which will supplement and strengthen the influence of the mother on the child?

"There are two things, as it seems to me, that can be done by a father for his daughter, and that if they were always done, would in the course of a single generation make our womankind approach a level which they never yet have reached. And neither of these things can be done if a father stands aloof and never really comes to know the child from her earlier years. Many men, perhaps a majority of them, have a curious bashfulness in the presence of children. They are uneasy with an oppressive sense of grownupness that makes them actually awkward and uncomfortable. They have a feeling that the child expects something of them and has a right to it; and yet just what it is, they cannot possibly divine. So, when they speak to children, they speak with an added touch of dignity or rather stiffness; and they say flat, pompous, grown-up things such as puzzle the child or silence it, and drive it back into the inner sanctuary of its own little world, to which the well-meaning but embarrassed elder never finds the golden key. And yet the key is always so near at hand, so easy to reach, if one but has the secret of simplicity and can put aside self-consciousness and let the youthfulness in his own heart rush out to meet the youthfulness of the child. Love ought to make this always possible; yet oftentimes the father who would die for the child's sake, cannot struggle through the barrier that seems to separate their understanding of each other. In reality, all children are responsive. They give their trust and confidence very readily to one who meets them on their own ground, not "talking down" to them, or striving laboriously to be childish with an artificial childishness of which the instinct of childhood so unerringly detects the insincerity. Perfect naturalness, and a complete self-surrender, and a genuine affection beneath it all — these will alone win their way into the children's world, than which there is no world so curious and wonderful, with a touch of the celestial still lingering about it all, and a trustful, innocent ignorance that is beautiful in its charm and in its quite unconscious pathos. It is only the first step that counts; and when you are once within the portal all the rest is easy. You have made the childish heart your own, and you can work upon it as a plastic artist works upon his clay.

"Many men, however, find it easy to 'make friends' with boys, because of the memory of their own boyhood,

while still regarding girls as more or less inscrutable. Yet this feeling is in the main subjective and has no basis in facts. For the truth is that in the earlier years of childhood, the differentiation of sex does not make itself conspicuous. The interests of the very young boy and those of the very young girl are not essentially unlike. Boys play with dolls until some older boy makes sport of them for doing so; and girls will enter into boyish games and will in fact imitate the boyish manner as a matter of deliberate choice. The so-called 'tomboy' is an evidence of this. Most girls are tomboys until they are seven or eight years old, and many of them remain tomboys until the age of fourteen or fifteen. This makes it all the easier for a father to gain a clue to the confidence of his daughter in her earlier years; and having gained it once, he need never let it go. For, as time goes on, the habit of intimacy will not be lost, and both he and she will be all the closer friends. He will have learned her impulses, her tastes, her likes and dislikes, the strength and also the weaknesses of her nature, and he will know intuitively how to influence her through those motives that will make the strongest appeal to her. Now, having won this knowledge, how can he use it best? I should say that the best use which he can make of it is to keep it unimpaired and to perpetuate it. To establish and maintain the very closest sympathy with her is one great thing that a father can do for his daughter, because, as I said before, the existence of such a sympathy and intimate association exercises in two most important spheres an influence whose value is inestimable.

"The chief defect in the rearing-up of girls lies in the fact that the atmosphere of their period of development is too intensely feminine. The mother's constant watchfulness, her omnipresence, her incessant friendship with the daughter whom she is guiding into womanhood, are usually supplemented only by the watchfulness and association of other women. Moreover, after six or seven years have passed, the young girl's companions are almost exclusively those of her own sex. If she have brothers, they will not admit her to their intimacy; for with the clannishness of all very boyish boys, they look down upon girls as upon an inferior race, and they herd together by themselves in the amusing pride of their incipient masculinity. Hence, the young girl usually grows into early womanhood, with the feminine traits which were hers at birth all heightened and accentuated. These traits are nearly always in themselves most beautiful — the sensitiveness, the capacity for warm affection, the quick responsiveness, the emotional nature, the personal point of view. One expects all these in woman; and without them, woman would lose her special and peculiar charm. Yet in each of them there is danger to the woman herself and to her own happiness; so that could the intensity of each be tempered and controlled by some counterbalancing influence, the charm would not be lost, while the character would be greatly strengthened.

"Herein is suggested very clearly the value of a father's influence. If he be his daughter's friend and chosen companion, sharing all her little confidences and imparting to her much of what he knows, with the intuition of a woman and the breadth and sanity of a man, the girl will grow up with a mind unlike the minds of the many women in whom femininity verges upon fatuity. From close association with a father the young girl quite unconsciously acquires something of the largeness of

the man's nature, and loses something of the pettiness and narrowness of the woman's. His tolerant, genial spirit will moderate her tense emotionalism. His sense of humor will rid her of sentimentalism and imbue her with a sense of true proportion. His fun, his good comradeship, his affection, and his knowledge of life will help to send her forth into the world strengthened and developed as no purely feminine influence could strengthen and develop her. She will know more than the restricted corner of existence in which many children are bred; and if the father have the knowledge and the gift of sharing it, she will have intellectual interests and acquirements that will make her society not merely charming but stimulating and informing. . . .

"A great many fathers will wonder how they can be expected to impart to a young daughter a knowledge of the things in which they, themselves, are interested. . . . The thing is so easy, though it may seem so hard. A child — a very young child — can be made to take a vivid interest in anything whatever if only the right method of approach be tried. The sensitive, impressionable, receptive mind is open wide for every possible sort of knowledge; and all that is necessary is to make that knowledge simple — to translate it into childish terms — and it will be grasped and assimilated at once. If only fathers would cultivate the gift of story-telling, and put themselves in sympathy with the child's world, the child's thoughts, the child's imagination, there is nothing in human knowledge that cannot be, in part at least, given to the eager young mind, and it will, when so given, be received precisely as the more ordinary facts of the child's immediate environment are received,— simply and as a matter of course. . . .

"Knowledge gained in this way is the surest knowledge of all. It is chemically, and not mechanically, mingled with the mental stores. It is received at an age when it becomes a part of one's being, and is therefore not the self-conscious knowledge which renders some men and very many women pedantic and intellectually ostentatious. And best of all, it makes easy the way for that fuller understanding of the world which comes with every year, or rather it sets a truer value upon what is learned thereafter. It begins a process which will continue throughout life — a process of thoroughly assimilating what is worth knowing at all, of exercising an intelligent curiosity, and of gaining breadth of interest and a more perfect sympathy with every phase of life. And the beauty of it is that it comes so unconsciously when it comes in such a way as this. It is taken in just as the air is breathed, without the slightest effort, and even without the thought that anything is being done. Give us girls whose fathers have cared to make companions of them and to talk to them of everything, and we shall soon have a race of women such as the modern world has never seen.

"And the second result which the father's close association with his daughter can accomplish is something more important still. The most trying moment for a father or a mother is the moment when the young girl as she reaches womanhood goes out into a somewhat larger world than that of childhood. There she will meet men on equal terms, and there it is to be supposed that she will ultimately find the man to whom her life is destined to be linked for better or for worse. Whom will she choose, and who will seek to be her choice? Will she be infatuated by some fool who to her ignorance and

inexperience will seem to be the fairy prince of her harmless dreams, because she has as yet no standard by which to judge him? Will her innocent love of admiration, her girlish vanity, and her lack of knowledge lead her into the greatest error that a woman can commit who still remains untainted?

"The danger is always grave. The possibility is always there. Yet the danger is diminished and the possibility shrinks into almost nothingness, if the father has done his whole duty. For a father should be not only a daughter's dear companion and close friend, but he ought to be her hero, too,—her type of what a manly, honorable man should be. Her love may go astray; yet at any rate she will never throw herself away upon a ninny; for she will, by the instinct which a fine example has awakened in her, reject the insincere, detect the fatuous and feeble, and at least have in her soul an ideal whose realization will demand not merely pleasant ways and smooth-tongued speech, but also heart and brain and feeling, blended with all the force and fire which go into the making of a man, the true man of her ideal.

AN OLD-FASHIONED WOMAN

No clever, brilliant thinker, she,
With college record and degree;
She has not known the paths of fame,
The world has never heard her name;
She walks in old, long-trodden ways,
The valleys of the yesterdays.

Home is her kingdom, love her dower —
She seeks no other wand of power
To make home sweet, bring heaven near,
To win a smile and wipe a tear,
And do her duty day by day
In her own quiet place and way.

Around her childish hearts are twined,
As round some reverend saint enshrined,
And following hers the childish feet
Are led to ideals true and sweet,
And find all purity and good
In her divinest motherhood.

She keeps her faith unshadowed still —
God rules the world in good and ill;
Men in her creed are brave and true,
And women pure as pearls of dew,
And life for her is high and grand,
By work and glad endeavor spanned.

This sad old earth's a brighter place
All for the sunshine of her face;
Her very smile a blessing throws,
And hearts are happier where she goes,
A gentle, clear-eyed messenger,
To whisper love — thank God for her!

—*Selected.*

The Hundred Year Club

How to Use Old Age.

The circumstances that favor the attainment of old age are the inheritance of a good type of organization or tenacity of life from healthy, long-lived parentage; the eating of only a fair variety of wholesome food; the constant use of fresh, pure air; moderate outdoor exercise daily; and total abstinence from the use of narcotic, anesthetic, or intoxicating drinks of every kind.

In addition to the foregoing, the period of youth should be accompanied by such educational training as will favor an equal and full development of the various organs and functions of the body and of the faculties of the mind, but without extremes of physical exertion or intensity of mental application.

The adult period should be spent in the pursuit of some useful occupation requiring, or at least permitting, a fair proportion of daily exercise of both body and mind, followed by from six to eight hours of natural sleep at night.

The question how to use old age to the best advantage is one of much interest and importance. In answering, it is necessary to keep in mind the distinction between simple old age and the cases of premature failure of life, often in the middle of the adult period, from chronic diseases produced by injurious occupations and habits or modes of living. Such cases are numerous in all classes of society, and are often designated as examples of premature old age. The fundamental principle involved in the treatment of all such consists in the improvement of their occupations and the correction of their erroneous habits or modes of living.

Medicines may be needed to aid in correcting disordered functions in some cases, but no drug or "elixir of life" can permanently rejuvenate the prematurely old without removing the causes that have led to the early decline.

If we would use old age to the best advantage, we must adopt such personal habits or mode of living and such occupation as will favor its prolongation. It is the special period in which the individual is least capable of adjusting himself to new environment, to new occupations, or to sudden and marked changes in climate.

Consequently, the most important principle applicable to its most successful management is strictly conservative. It consists in simply keeping the individual's work, both mental and physical, gradually diminishing in the same ratio as old age advances, and his supply of food more simple and less in quantity; for the person engaged in active work eight or ten hours of the day, undergoes more waste of his tissues than when he works only five or six hours.

It is obvious that all persons who spend the strength and energy of their adult years for the sole purpose of accumulating wealth, or for selfish display, find it very difficult to make their old age either long or enjoyable. On the contrary, those who have diligently prosecuted their various lines of work, not so much for the selfish purposes of accumulation or ostentatious display as for obtaining means for aiding the im-

portant educational, religious, and charitable interests ever present in civilized communities, and have thereby become interested in both the public welfare and the relief of individuals in need, seldom if ever find old age a period of mental vacuity or barren of peaceful enjoyment. If during their years of efficient activity they have succeeded in receiving not only enough for their own support and to give a fair degree of help to the needy around them, but a surplus for their declining years, they, unconsciously, perhaps, welcome the leisure hours of age as affording them the opportunity they had desired for more judiciously dispensing aid to the individuals and institutions needing it. If it should so happen that the old man's liberality to others during his years of activity had been such that he had reserved no surplus for his declining years, still the memory of his past good deeds and the cordial greeting of lifelong friends would add comfort and contentment to his latest days, though they might be extended to a hundred years.

It is thus seen that both the duration and the usefulness of old age depend very much upon the manner in which the preceding periods of life have been spent. If the moral and intellectual faculties have been developed, disciplined, and stored with knowledge during youth, and if the years of adult activity and vigor have been spent not only in the diligent prosecution of some legitimate and useful line of work, but also in lending a helping hand to all such public and private interests as need the help of all good citizens, old age will generally be long, peaceful, and useful. But if the first and second periods of life have been dominated by unrestrained selfishness, whether in gratifying personal appetites and passions or simply in accumulating wealth, the period of old age will be short and filled with anxiety and vain regrets. It is evident, therefore, that the first step toward using old age to the best advantage consists in having used the preceding periods of life in accordance with the best ideals of good, active citizenship. If the individual has done this as a mere laboring man or woman and the days of diminished strength and activity have come, let that person at once seek lighter kinds of labor or less hours for the day, and cheerfully accept correspondingly less pay. By so doing one will continue to earn something to the latest period possible and will prevent the ennui of idleness and the conscious depression of helplessness or want.— *Dr. N. S. Davis.*

Ages to Which Great Men Have Lived.

Of the eighty-nine celebrities included in the following fairly representative list nearly one half attained the age of seventy years or more, and nearly two thirds attained the age of sixty.

Moltke was the most long-lived of great generals, reaching the age of 91. Then follow Xenophon, 86; Wellington, 83; Bernadotte, 80; Blucher, 76; Genghis Khan, 72; Tilly, 72; Marlborough, 72; Marius, 71; Timur (Tamerlane), 68; Themistocles, 65; Hannibal, 63; Napoleon, 51; Alexander the Great, 32.

Humboldt leads the men of learning with 89 years. Then come Newton, 84; Plato, 82; Kant, 79; Galileo, 78; Copernicus, 70; Linnæus, 70; Leibnitz, 70; Socrates, 68; Aristotle, 62; Hegel, 61; Descartes, 53; Spinoza, 44.

The list of statesmen runs: Talleyrand, 84; Bismarck, 83; Augustus, 76; Disraeli, 75; Frederick the Great, 74; Charlemagne, 71; Washington, 67; Cicero, 63; Cromwell, 59; Richelieu, 57;

Cæsar, 55; Alfred the Great, 52; Pitt, 47; Mirabeau, 42.

Among men of letters are Sophocles, 90; Voltaire, 84; Goethe, 83; Victor Hugo, 83; Corneille,78; Herodotus, 76; Euripides, 74; Thucydides, 70; Petrarch, 70; Rabelais, 70; Æschylus, 69, Cervantes, 68; Milton, 65; Scott, 61; Racine, 59; Horace, 57; Dickens, 57; Dante, 56; Shakespeare, 52; Virgil, 51; Moliere, 51; Schiller, 45; and Byron, 36.

Titian leads the artists and, indeed all the rest, with the venerable age of 99. Then come Michael Angelo, 89; Rubens, 63; Rembrandt, 63; Velasquez, 61; Holbein, 57; Van Dyck, 42; Correggio, 40; Raphael, 37.

Four founders of religious sects are included: Confucius, 71; Luther, 66; Mohammed, 62; and Calvin, 54.

The musicians are: Haydn, 77; Handel, 75; Spohr, 75; Palæstrina, 70; Bach, 55; Beethoven, 56; Schumann, 41; Weber, 39; Chopin, 39; Mendelssohn, 38; Mozart, 35; and Schubert, 31.

The average age of the eighty-nine, at death, was 64½.

Despite the general longevity there is something striking and pathetic in the low figures set opposite some of the greatest names in the list, notably Alexander, Raphael, Weber, Mozart, and Schubert. Musicians seem to be especially short-lived. The average lifetime of those cited comprises only fifty-three years.

The men of learning on the other hand, and also the generals, enjoyed, on the average, seventy years of life. The average life of the statesmen and also of the literary men was sixty-five years.

It would seem to follow that though the pen may be a trifle mightier than the sword as a shortener of life, it is far surpassed by the violin, the piano, and the conductor's baton.—*Selected.*

Many Old Women.

According to the San Francisco *Evening Post*, more women than men seem to have attained the rank of centenarians at the opening of the twentieth century, and they offer a fair variety of recipes for keeping the inevitable at bay. Mrs. Mary Bradley of Philadelphia was 101 when the new century dawned, and to the friends who offered congratulations she bequeathed the magic secret.

"I attribute my good health and long life to cold baths," she said, "and these I have taken daily summer and winter ever since I was a little girl. The cold water has always braced me and made me cheerful and bright. If you bathe with warm water you will be cold all day. In winter this is what I tell my daughters, my grandchildren, and great-grandchildren."

With the vigor of all women of fifty, Mrs. Anna Bentley Lewis of Saginaw, Mich., greeted the arrival of the twentieth century, though she was born in the year 1797. "Cheerfulness is the best tonic in old age," she said. Miss Eliza Works of Henrietta, N. Y., was 105 in November, when she had her first illness. "What are your rules for long life?" she was asked.

"I attribute my long life," she said, "to my temperate habits. In my childhood I lived on a diet of bread and milk, and all through my long life that has been my favorite dish. I never ate sweetmeats or drank tea or coffee."

An Interesting Autograph.

We are in receipt of a letter telling us that Mrs. Elizabeth Stalker, whose picture appeared in the February number of GOOD HEALTH, is still enjoying the best of health, and is much interested in the stories of other old people's lives which she finds in the Hundred Year

Club. She also sends us her autograph written upon her one hundred and second birthday, which we reproduce here.

Elizabeth Stalker
Aged 102 years
Dec 19th 1902

Mrs. Sarah Burns, Aged One Hundred, Years, Mt. Morris, Pa.

Mrs. Burns's father settled near Mt. Morris in a very early day, and she, being among the older children, went into the cornfield and hoed corn at an age when most little girls are absorbed in playhouses and dolls. She helped clear the farm, picked brush, made hay, raised and spun flax, and assisted in all the work to be done on the farm of the early settler, both indoors and out.

She lived upon a very simple diet, consisting almost entirely of the products of the home farm, simply prepared. She cared little for either tea or coffee.

Her life continued to be a very active one until she lost her sight, about eight years before her death, when she was almost 101 years.

MRS. SARAH BURNS

MR. TIMOTHY BRESNAHAM.

Mr. Timothy Bresnaham, Aged One Hundred and One Years, Windsor, Canada.

Mr. Bresnaham has always worked out of doors and in all kinds of weather. He was not a hearty eater and used very little meat. He was always active, taking a lively interest in what was going on around him.

He did not use alcoholic liquors, never chewed tobacco, and did not smoke to excess.

GENERAL HEALTH TOPICS

Beer Drinking Among Students in Germany.

The following item has recently appeared in the newspapers:—

"It is estimated that $750,000,000 is spent yearly for intoxicating beverages in Germany. Germans average five glasses of spirits daily."

The effect of this universal beer drinking in Germany has been carefully studied by prominent university professors and other scientists in that country. The following are a few of their utterances:—

Professor Edward von Hartmann, author of "The Philosophy of Unconsciousness," says: "Although of all nations the German has the greatest capacity for culture, the general culture of its higher classes is undergoing frightful retrogression because the beer consumption of its student youth is affording neither time nor sobriety to acquire more than is demanded by the advanced requirements to prepare for their professional life."

Dr. A. Forel, of the University of Zurich, testifies to practically the same thing in an article in the *American Journal of Insanity*, October, 1900: —

"'But,' you will say, 'alcohol is poisonous in excessive amounts only. A moderate quantity of beer or wine does no harm; it promotes pleasant sociability. We do not care to forego it just on account of a few drunkards.'

"This question, what dose is harmless and not poisonous, demanded serious tests. As an answer we have the numerous experiments of Kraepelin, Smith, Fürer, Aschaffenburg. They are not refuted, and have found manifold corroboration. Doses of even 7–10–15 gm. (one fourth to one half oz.) of alcohol, which correspond to a glass of wine or a pint of German beer (certainly a most moderate dose), are sufficient to paralyze, retard, or disturb the central and centripetal brain functions. The number of mistakes in calculation, setting type, memorizing, is increased. Sensibility is blunted, the reaction is retarded. The subjective consequence of the effect is agreeable; one feels heat, cold, and pain less; one is less afraid, less accurate, less scrupulous. At the same time a very slight illusion spreads over reality, the beginning of the later intoxication by higher doses. Hence, whenever alcohol promotes sociability and loosens the tongue, it is the consequence of a cerebral intoxication. Whenever the dose is too weak to produce this result, it also fails to have the desired effect. Hence, it is evident that the social effect of alcohol is pathological. It may, in Kraepelin's and Delbrück's words, rouse stupid crowds to talk.

"One only needs to study in Germany the 'beer jokes,' beer conversation, and the beer literature. They have stifled in young Germany the idealism, the taste for the classics, and the finer mental pleasures throughout broad parts of the nation and in both sexes. Among the academic youth of Germany the drinking of beer has truly killed the ideals and the ethics, and has produced an incredible vulgarity."

As long ago as 1881, Professor Binz, of the University of Bonn, called attention to this peril in the following strong words: "This flooding the stomach and brain with beer, so prevalent among our young students; the habit of drinking between meals, especially during the forenoon; this daily beer drinking for hours at a stretch, customary among great numbers of the lower and middle classes in Germany,— I regard it all as a national evil, whether considered from the hygienic, economic, or intellectual point of view."

More recent utterance comes from Dr. J. H. W. Stuckenberg, of Cambridge, Mass., who from long observation in German universities made the following statement before the Presbyterian ministers of Chicago last winter: "I once saw a theological student drink twenty-four mugs of beer in three hours on a wager. Outside the class room, theological students take their beer and think nothing about it. When the classes go to their lodgings after the night sessions the members often are drunk. As a result there are disgraceful quarrels and fights. I saw fifty or more duels fought while I was in Germany which could be traced directly to the habit of beer drinking. When you are confronted with the statement that there is no drunkenness in Germany despite the large amount of beer and light wines consumed, you can refute the argument with figures which are easily obtainable. Beer drinking in Germany is the greatest curse of the country, and it will destroy the nation unless it is checked."

The chief burgomaster of Jena, Germany, having publicly declared that a school director should not be taken seriously because he was avowedly opposed to alcoholism, a number of leading scientists connected with the universities of Zurich, Munich, Basle, Leipsic, and others, published the following statement: "The great danger of the moderate use of alcoholic drinks is that it is a trap for many of our fellow men, into which it entices them, and pushes them to an immoderate use which was not desired, which was even dreaded. The fact is naturally explained, because it is founded upon the special action of the alcoholic poison, and upon the peculiar character of the nervous system of man. . . . The moderate use of alcoholic drinks is the true cause of alcoholism."

"It is an absolutely scientific fact that alcoholic drinks more than any other factor injure our national life, diminish the physical and intellectual forces of our race, impregnate them with the hereditary diseases, and lead to degeneracy.

"More than half the inmates of our penitentiaries have been led into crime by alcohol; nearly a fourth of the insane owe their sad fate to alcohol; misery, impoverishment, and grossness of manner are due in thousands of cases to this national poison. Alcohol is the certain cause of ten per cent of deaths among adults. Every year in Germany thirteen hundred persons lose their lives through accidents happening as the result of alcoholic excess. Sixteen hundred are driven by alcohol to suicide, and about thirty thousand are annually stricken with delirium tremens or other brain troubles."

The Dangerous Nature of Beer.— It is well known that alcohol has the power, when taken in small amounts, to create an uncontrollable and destructive desire for still more; hence, beer is a most dangerous drink that invites to an increased use of itself and of stronger alcoholic drinks, and in time certainly leads to drunkenness.

Professor G. Von Bunge, professor of physiological chemistry in the University of Basle, Switzerland, says: "Beer is the most injurious of alcoholic drinks because no other is so seductive. One can accustom himself more readily to the drinking of beer than any other intoxicant, and no other so readily destroys the appetite for normal food and nourishment.

"It is not only the concentrated alcoholic liquors that cause heart and kidney trouble, but pre-eminently the continued use of beer."

The *Scientific American* says: "The use of beer has been found to produce a species of degeneration of all the organs. In appearance the beer drinker may be the picture of health, but in reality he is most incapable of resisting disease."

Dr. S. H. Burgen, Toledo, Ohio, adds the following testimony of a practicing physician: "My attention was first called to the insidious effects of beer when I began examining for life insurance. I passed as unusually good risks five Germans,— young business men, — who seemed in the best of health, and to have superb constitutions. In a few years I was amazed to see the whole five drop off, one after another, with what ought to have been mild, and easily curable diseases. On comparing my experience with that of other physicians, I found they were all having similar luck with confirmed beer drinkers, and my practice since has heaped confirmation upon confirmation. . . .

"Any physician who cares to take the time, will tell you that the beer drinker seems incapable of recovering from mild disorders and injuries not usually regarded of a grave character. Pneumonia, pleurisy, fevers, etc., seem to have a first mortgage on him, which they foreclose remorselessly at an early opportunity. . . . When a beer drinker gets into trouble, it seems almost as if you have to recreate the man before you can do anything for him."

Dr. S. S. Lungren, Toledo, Ohio, says: "It is difficult to find any part of the confirmed beer drinkers' machinery that is doing its work as it should. This is why their life cords snap off like glass rods when disease or accident gives them a little blow. This is not mere opinion; but is a well-settled, well-recognized fact. Physicians and insurance companies accept this as any other undisputed fact of science."

Beer Does Not Furnish Physical Strength.— N. S. Davis, M. D., L.L.D., Chicago, Ill., says, that "alcohol diminishes working ability, and power of endurance is abundantly illustrated by the thousands of beer and wine drinkers who, from twenty to twenty-five years of age, were muscular, active, capable of any reasonable endurance, with a weight of one hundred and fifty pounds, but who, by the daily use of beer and wine have acquired a weight of two hundred pounds or more, and have lost their muscular activity and endurance to such an extent that an active exercise of twenty minutes would make them puff like a heavy horse.

The late Adolf Fick, professor of physiology in the University of Wurzburg, Germany, said: "It is quite beyond doubt that every dose of alcohol, even the most moderate, diminishes the strength."

Dr. August Forel, of Zurich, says: "Is there any alcoholic drink which, taken moderately either as a supposed tonic or as a means of nutriment, is beneficial to human health? I answer the question with a decided 'No.' Alcohol not only in strong liquors, but in diluted kinds, as beer and wine, is a poison."

The claim is continually reiterated in the name of Prof. W. O. Atwater, of Middletown, Conn., that alcholic beverages in moderate quantities may serve the general purposes of food. But numerous prominent medical journals have declared that Professor Atwater's own figures do not establish the claim. His experiments are no longer under the auspices of the United States Government. Indeed, instructors in physiological chemistry and kindred departments in our leading schools in Philadelphia, Cambridge, Chicago, and elsewhere, repudiate altogether the idea that there is any food value in alcohol; that there is any appreciable nourishment in beer is an exploded idea in the teachings of advanced science.— *The New Century Study of the the Alcohol Question, No. 72.*

Pulmonary Tuberculosis.

At least four classes of employments have a tendency to favor the development of tuberculosis. They are:—

1. Sedentary employments in ill-ventilated apartments, involving confinement in impure air and other unwholesome conditions. This class of occupations is typified by the so-called sweatshops for the manufacture of various articles of clothing.

2. Employments which necessitate the inhalation of irritating dust and noxious vapors. Such are those of stonecutters, bleachers, matchmakers, needle-makers, file-cutters, grinders, engravers, etc.

3. Employments which involve the overuse or abuse of certain muscles. These are athletes, prize fighters, gymnasts, wrestlers, professional bicycle-riders, ball-players, etc., a large proportion of whom die eventually of phthisis.

4. Employments which involve undue familiarity with intoxicants. These are those connected with manufacture and sale of wine, beer, and the various classes of alcoholics. Tatham's tables show that, taking the average mortality from consumption at one hundred, that of publicans is one hundred and forty, of brewers one hundred and forty-eight, and of bartenders two hundred and fifty-seven.

The principal measures of prevention now recommended are as follows:—

1. The proper disposal of tuberculous sputum.

2. Control of milk and meat supplies.

3. Notification of the Board of Health of all cases of tuberculosis.

4. Sanitaria and hospitals for consumptives (in sanitary dwellings).

5. The prevention of overcrowding, defective ventilation, damp, and rain.

6. Healthful occupations, with healthful conditions for carrying them on.

7. Residence in rural districts, with favorable climatic conditions.

8. An abundance of sound and wholesome food.

9. Personal cleanliness and public hygiene.

10. Isolation and disinfection of consumptives.

The figures showing the death rates at intervals of fifty years combine to teach the encouraging fact that the death rate from consumption is steadily decreasing throughout the civilized world. So marked is the improvement in this direction that it is not too much to say, as one writer has done, that the average individual of to-day "is exposed to a risk of dying from phthisis in a degree about three-fourths as great as that to which his parents were exposed, and only one-half as great as that to which his grandparents were exposed.

In seeking for the causes of this gratifying improvement one fact stands out above all others, and including all others;

namely, that this decrease in the death rate from consumption has been coincident with better circumstances on the part of the people, increased intelligence of the masses, and the general progress of the world in all the arts of civilization. — *J. M. French, Medical Examiner, December, 1901.*

LIVE FOR SOMETHING.

LIVE for something, have a purpose,
And that purpose keep in view;
Drifting like a helmless vessel,
Thou canst ne'er to life be true.
Half the wrecks that strew life's ocean,
If some star had been their guide,
Might have now been riding safely,
But they drifted with the tide.

Live for something, and live earnest,
Though the work may humble be,
By the world of men unnoticed,
Known alone to God and thee
Every act has priceless value
To the architect of fate;
'T is the spirit of thy doing
That alone will make it great.

Live for something — God and angels
Are thy watchers in the strife,
And above the smoke and conflict
Gleams the victor's crown of life.
Live for something; God has given
Freely of His stores divine;
Richest gifts of earth and heaven,
If thou willest, may be thine.

— *Robert Whitaker.*

The Pernicious Habit of Self-Drugging.

Perhaps the greatest foe to the health of the present generation is the pernicious habit of self-drugging. Nerve tonics, blood purifiers, sleep producers, and especially laxatives, are consumed by the gallon and the hundredweight. The primary effect of any of these poisonous mixtures is seemingly good; the nervous fidgets, the "tired feeling," the insomnia or the constipation, is promptly relieved by the first few doses. Naturally, when the symptoms return, as they are bound to do, the sufferer turns again to the bottle or the pill box. Again he gets relief, and again he is driven back to his drug, taking larger and larger doses as the habit is forming, until at last the fetters are forged and a new "drug fiend" is created. It is cheaper than calling in a doctor, and is less trouble than systematic exercise; but how many could be saved from this bondage, and how many slaves could be freed by rational physical culture, only the physician who knows the prevalence of this evil can guess.

The nervous, the sleepless, and the neurasthenic are of all persons the last who should seek relief from drugs or from alcohol. Their very disease predisposes them to drug addiction, and once having experienced the lethe which drugs may bring, only the most heroic exhibition of will power — which, alas! they have not — can save them from thralldom. And yet these shattered nerves are calling only for rich red blood, for pure air, good food, and the healthful stimulus, without reaction, of the bath. The rest-cure for some, active exercise for others, will bring the reality of health, which drugging can only for a brief moment simulate.

Dyspepsia and constipation, when due to stomach and intestines, or to deficient secretion of the digestive juices, or to a sluggish liver, are often miraculously relieved by properly directed physical exercises. The overfat, also are good subjects for "reducing cures" by dieting and exercise, and so are the gouty and those suffering in other ways from what is called, rightly or wrongly, the "uric-acid diathesis." — *Dr. T. L. Stedman, Everybody's Magazine.*

Tooth Brushes.

Nearly all brushes are made from bristles taken from the wild hogs of Russia or China. The handles are common beef bones. They are made mostly in Japan, France, England, and Germany, and by one firm in the United States. Probably English brushes are the best made and worst shaped. The French are next in quality, but far ahead in form. Germany and Japan are generally imitators. Some of the most expensive English and French, and all American brushes, are made in factories under more or less sanitary conditions; but the cheaper grades, including all German and Japanese brushes, are made in the huts of the peasants, where cattle, dogs, swine, fowls, and humans are herded in common. The bristles and bone are given out by the dealer and taken into the country, where they are assorted by the aged and young children and diseased persons, the stronger members of the family working at more remunerative employment.

These cheap brushes are often made in the most unsanitary and wretched surroundings imaginable, and it is a significant fact that after being made they are seldom sterilized before using.

The English brushes are generally very much too large to be efficient. The French are better shaped, but are apt to be too long of head, making much waste to the brush, and are too long of bristle.

A wide brush is not advisable because it limits the movement possibly longitudinally to the tooth. Long bristles are not best because they bend when the brush is thrust back between cheek and teeth, and stay bent till the brush is withdrawn, thus missing the interproximal spaces so much in need of cleaning. Soft bristles become softer when wet, and utterly fail to enter the spaces at all. If the surface of the bristles is concaved longitudinally to fit the labial curve of the teeth, then when the brush is reversed and used on the lingual surfaces, only the ends of the brush engage the teeth; hence, more teeth are missed than cleaned, and the user is deceived into thinking he has cleaned his teeth because he has brushed them.

Stuyding the brush over and what is required of it, it would seem that the brush best adapted to use in the human mouth should have a short, narrow head with short, rather stiff bristles, trimmed straight longitudinally and convex latitudinally, that each line of bristles may come successively into use as the brush is rotated.— *Dr. L. H. Arnold, Review.*

The Teacher's Story.

I was teaching a country school and "boarding round." One week I was in a lovely Christian home. Few children are loved as fondly as was the little boy who was the only child at that house. His father worked and sacrificed that he might be educated and have a start in life, and his mother provided good wholesome food, kept him clean and comfortable and taught him good manners.

Yet at my first meal in that home I was made heartsick by the untruths which were told to the child by both parents, without a suspicion, seemingly, that they were doing wrong. When the fond mother tied on the little boy's bib I heard her say, "Now you must be good or God won't love you." Lie number one. Under this awful threat the boy became nervous. He spilled a little milk.

Then it was the father's turn. "Now the lady will go away and tell all the people that our little boy spills his milk." Lie number two.

Presently the father said to me, "Don't you want a boy? I will trade you this one for a hen." Number three.

The boy sought his mother's eye anxiously, to see whether this were really meant, but she did not meet his gaze. As I could not say to him, "Your father is not speaking the truth," I smiled reassuringly at him. Papa went on: "Or, I'll trade him for a pig, — he eats like a little pig. You could put him in the pen with your pigs at home." Lie four.

The boy was slow about eating and had not finished when we left the table. Papa said, "If you eat so much you will turn into a little pig." Lie number five. "You are almost fat enough to sell now. When you get fat enough to kill you could be killed, like the other little pigs." Lie number six.

The father went out, laughing. By the shades of livid color that passed over the face of the tortured child, I knew that he had, unfortunately, seen pigs slaughtered. In his dilated, horror-stricken eyes I saw that his imagination pictured the frightful scene, and placed himself in the place of the victim. He ate no more. All the digestive fluids were turned to poison. I helped him down from his high chair, took him in my arms, and gave him my watch to hold, while I told him about my brother's pet squirrel. But in the midst of the most engaging part of the story he looked up earnestly into my eyes and said, "I hope when my papa does sell me I can go to you." I told him that his father was only in fun, that papas never sold their little boys, that it was against the law and therefore could not be done.

Just then his mother came to put him to bed early so that she and I could chat without interruption.

We visited late, and just as I entered the guest chamber the house rang with agonized screams, and I found both the parents bending over the child's bed, while he, sound asleep, with wide-open, unseeing eyes, was hoarsely screaming, "I ain't a pig! I ain't a pig! Don't kill me!"

At last, after having water dashed in his face, he seemed to recognize his mother's voice, and clutched her with a death-like grip, which could not easily be unclasped,— nightmare amounting to delirium tremens caused by untruths, indigestion, and an excited imagination! It might easily have proved fatal.

I learned, then and there, that it is not enough to earn and cook food for a child — he must be permitted to eat undisturbed. I also learned that the processes of digestion and assimilation cannot be carried on at all while the mind is controlled by fear, anger, jealousy, or grief.— *Mrs. McVean-Adams, in Union Signal.*

The Wrong Way to Walk.

Very stout or slouchy people usually allow the abdomen to "lead." Brain workers, worriers, all nervous and physically uncultivated people, let their heads lead; the head is further advanced than any other part of the person. Dyspeptics whose thoughts are centered on their stomachs, often unconsciously lead with the waist line just over the offending organ. Occasionally a weak-willed person permits the knees to lead. When a thin, bad walker moves rapidly, there often seems to be a race between nose and knees, and you watch to see which will arrive at the goal first.

When a young woman's skirt and a young man's trousers show a bulging shape over the knees, their owners are leading sedentary lives or have never

learned to walk correctly. This part of the lower limbs should be kept straight, and the ball of the foot, not the heel, should touch the ground first. When the head is bent for long hours over sewing machine or ledger or onion bed, it is not an easy matter to pull it back to its proper position and make it stay there, and it seems so much more easy and comfortable to let the chest sink than to hold it up to its right place; but the demands of health and beauty are identical in the matter of a head held easily, not egotistically, back, and a chest kept in the highest and most advanced position.

It is a striking fact that this attitude of head and chest is expressive, not only of health and grace, but of the finer mental qualities. The embarrassed boy drops his head; if he would hold his head up, his nervousness would begin to disappear. The shy girl thinks that everyone in the room is looking at her, and her chest sinks; but if she would hold it up — assume the attitude of courage, though she have it not — she wouldn't care whether they looked or not. The self-conscious person who knows he is stiff and awkward, and who knows that his stiffness and awkwardness are the direct results of his self-consciousness, should imagine that a strong string is attached to the upper part of his chest and held by an invisible hand above him. All he has to do is to let his body depend from that string and keep his head well back of it, and his mind and body will alike become easy and free. The most graceful walker I ever knew told me that she habitually walked by aid of this invisible cord — *Good Housekeeping*.

Dress and undress thy soul, watch the decay
And growth of it. If with thy watch, it too
Be down, then wind both up.— *Herbert*.

WHAT KNOW WE

WHAT know we of the gnawing griefs
That dim perchance our neighbor's way,
The fretting worry, secret pain
That may be his from day to day?
Then let no idle word of ours
Sting to his heart with sore dismay.

What know we of temptations deep
That hover round him like the night,
What bitter struggles may be his,
What evil influences blight?
Then be not hasty to condemn
If he has strayed from paths of right.

We know so little of the hearts
That everewhere around us beat,
So little of the inner lives
Of those whom day by day we greet,
Oh, it behoves us, one and all
Gently to deal with those we meet.

Gently to deal and gently judge,
With that divinest charity
That thinks no evil, but would seek
The good in every soul to see,
Measuring not by what it is,
But by that which it strives to be.

— *Churchman*.

Spartan Women.

Lycurgus, being asked why he brought up Spartan young women in the same athletic exercises as the men, gave the three following reasons for it: first, that a vigorous offspring may be born from strong bodies; second, that they may bear themselves bravely in childbirth; third, that if necessity arises, they may be able to fight for themselves, their children, and their country.— *Plutarch*.

Get Health.

No labor, pains, temperance, poverty, nor exercise that can gain it must be grudged; for sickness is a cannibal which eats up all the life and youth it can lay hold of, and absorbs its own sons and daughters.— *Emerson*.

Fine Flour.

We find three generations ago there were few dentists and no need for more. The people lived on simple foods; patent-process flour and baking-powder were unknown; hot bread was seldom eaten. Without knowing it, our ancestors were following the laws of nature in chemistry of food, which we of a later generation have so frequently violated.

The Creator in building a kernel of wheat formed one of the most perfect miracles of vital chemistry in all his wonderful universe. So nicely balanced are the elements in this little grain that no chemist can suggest a point where it might be improved.

So perfect is the vital nutritive value of wheat that from practice it has been found that whole-wheat bread and apples supply every waste of the human tissue. During the past two years I have been using gluten. With this I have seen the most wonderful results. Gluten is absolutely clean, contains less than three per cent of starch and sugar, and will put color into the ears and cheeks of that anemic girl.

What, think you, must go on in the delicate jellies of the nerves, and in the marrow of the bones, and in the bones themselves when the hardest substance in the human economy — the teeth — is torn down and melted like snow in the sun?

Starvation sits at loaded tables. In the midst of abundance we have the young breaking down at their studies, business men fall out of the race, mothers grow pale and weak from no visible cause, while the dentist and the doctor work night and day to repair the breaking, crumbling, suffering army of starving people.

Not overwork but malnutrition is the cause,—that and the coffee and tea habits with which the majority brace up their hungry and rebelling nerves. — *Dr. Gustave P. Wicksell.*

Danger in the Oyster.

There is probably no one article of food, except raw milk, which is so frequently a cause of disease, and sometimes even fatal illness, as is the oyster. The nutritive value of the oyster is very small. It takes fourteen oysters to equal one egg in food value, and more than two hundred and fifty oysters to equal a single pound of beef in food value. This is due to the fact that the oyster consists chiefly of water, the balance being mostly liver and germs. The oyster lives upon the ooze and slime of the ocean bottom. Typhoid-fever germs, and other disease-producing organisms are tidbits for the oyster, and millions of them are always found in the oyster's stomach and the mucus, or slimy juice, in which the oyster is always bathed.

Another paper recently reports the death of the Dean of Winchester from typhoid fever, as the result of eating oysters at the mayor's banquet in England. The result of this death, according to a wholesale oyster dealer in England, has been the falling off in the consumption of oysters to the extent of seventy-five per cent; that is, that there is only one oyster eaten now where four were eaten before these facts became public. Oyster merchants and persons engaged in the oyster business generally, in England, are complaining that their business is ruined. Within three or four days after the death of the Dean of Winchester, the oyster trade fell off at Emsworth from five thousand to nothing.

Several similar epidemics have occurred in England, and a few in this country, in which fatal cases of typhoid fever were traced directly to the use of the oyster.

The oyster is a scavenger, and absolutely unfit for human food. The idea that it is more digestible than other foods is in the highest degree absurd. In addition to the germs with which it always swarms, the oyster contains a large amount of uric acid which cannot be gotten rid of by boiling, or by any other means.

"It ain't so far to happiness—it's lyin' all around;
It twinkles in the dewdrops, brings blooms to barren ground.
It sings in all the breezes; it ripples in the rills;
It's written on green banners that wave from all our hills.
"It ain't so far to happiness; we rob our lives of rest
To find it o'er broad oceans as far as east and west;
From all the dear home places in sorrow we depart,
And dream not that its dwelling-place is ever in the heart."

—*Selected.*

A Carnivorous Race.

The Jessup Exploring Expedition which has recently returned to New York from an exploration of the North Pacific, reports the discovery of several tribes which have not heretofore been described. The largest of these is known as the "Yukghirs," who occupy the Kolyma district. These people are not Mongolians. They are nearly white in complexion. They believe all human affairs are controlled by spirits, who are, in turn, in subjection to their priests.

The people are almost altogether carnivorous in their habits of diet. A hideous custom which prevails among them, is that of taking the lives of those who become old and infirm. This custom prevails among other flesh-eating peoples, but has never been reported as prevalent among any or tribe nation of people who are abstainers from flesh foods. An Asiatic tribe of flesh-eaters among whom this custom prevailed, went further, taking the lives of relatives who happened to fall sick from disease as soon as the illness was found to be serious. This people added the still more hideous custom of eating their friends and relatives after taking their lives.

The fact that these horrid customs are not found among abstainers from flesh, is an evidence of the deteriorating influence of a flesh diet.

Is Water a Food?

Hutchinson, an English authority, who has published the latest and best work of foods, includes water among food-substances. Water enters the body, not only as a solvent, but as destined to become a constitutent element of the tissues themselves. Water adds to the energy of the body by increasing the volume of blood, and thus increasing the power of the heart, and in other ways contributing to the activity of the tissues.

Latent Energy in Rain Water.

Wilson recently read a paper before the Philosophical Society of Cambridge, in which he shows that Becquerel is given off by rain water several hours after its collection. The precipitate obtained by boiling rain water down throws off remarkably active rays which are closely allied to the so-called X-ray.

BUT the faces that are nearest, and the faces that are dearest,
Are the true, the tender faces that our trust and loving win;
Then, when comes to them the shading, when the roses will be fading,
Like the vase, with light illumined, shall we see the soul within.

—*Anna Olcott Commelin.*

EDITORIAL

SLAUGHTERHOUSE ABOMINATIONS

THE women of Michigan, headed by Rev. Caroline Bartlett Crane, a talented Unitarian minister, residing in Kalamazoo, Michigan, are beginning a campaign against the conventional slaughterhouses which Mrs. Crane very properly denominates "this great wrong against health and decency."

We quote the following from her very able article which appeared in the January-February number of the *Interchange*, the official organ of the Michigan Woman's Press Association, and of the Michigan State Federation of Women's Clubs: —

"I think most women are as ignorant upon this subject as I was until the club 'Studies in Housekeeping' last spring led me afield into the source of supply of food products. Then I found a condition of things in our seven local slaughterhouses which is simply unspeakable and unimaginable. Not one of them is either in construction or operation within a thousand miles of being sanitary or decent. The ground under and around is soaked with rotted blood and the filth of years. Nothing but a hoe and a plane could effectually remove the caked blood, grime, grease, mold, and other quite unmentionable fifth from the walls and floors, and nothing but a thorough conflagration could ever remedy these plague spots that encircle our city and send forth from their precincts the great bulk of the meat we all eat.

"The methods of killing are needlessly cruel, and the fashion of dressing and handling the carcasses is so nauseating and disgusting that I do not wish to relate it. The uncooked offal is thrown into the mud to be eaten by the hogs which we are presently to eat, and thus one tuberculous cow may infect a whole herd of swine, and the swine in turn give to the rats, with which these places are teeming, trichinal and various other diseases which, as is well known, they distribute to the domestic animals, and through them, to the people of neighboring farms.

"The butcher trade is not even protected by a license. Any kind of man may kill any kind of beast in any kind of place, and sell it to any retail dealer who may or may not be aware if that animal came to the slaughterhouse diseased, dying or dead.

"Now, I am convinced from a voluminous correspondence with state and national officials, that the condition of things in Kalamazoo is not exceptional, but typical; that it is, in fact, a fair sample of what exists in all but the very few cities which are wise enough to secure local inspection. Let the women of each community look into this matter and see whether the evil is in their midst, and then do what lies in their power to influence their state senator and assemblyman to vote for a general enabling law which will permit to each city, village, and township adequate protection against unclean and diseased meat."

If the public were informed and aroused upon this subject, I am sure we would speedily secure a reform of this great wrong against health and decency.

The condition of things which Mrs. Crane has discovered in Kalamazoo and in other parts of the State exists also to a large extent in the larger cities. It must be said that although the great abattoirs of the large cities are somewhat more decent in their manner of killing, the horrors and evils to which attention is

called is only partly mitigated. In all probability quantities of diseased meat are buried in human stomachs annually. As Mrs. Crane says, "Any kind of man may kill any kind of beast in any kind of place," and he may sell it to anybody who feels hungering to gnaw a bone. The only people perfectly safe are those who do not care to gnaw bones or make cemeteries of their stomachs.

Certainly if slaughtering must be done, it ought to be done decently and in order. If one is going to permit his body to be used as a coffin, he would do wisely to at least see that the corpse is healthy when it died; that is, that it died by the hand of man and not by the hand of nature, — that the butcher got the start of nature by more than a day or two, which is not always the case.

It is a common custom of farmers to send animals to the slaughterhouse when they begin to show signs of falling off. A wise farmer was heard saying to one of his boys, "Jim, you'll have to hustle and get them hogs off to market this week, sure; half of them'll be dead if you wait until next week. The hog cholera is gettin' in among 'em bad."

It is the custom in a good many Southern schools for the teacher to take his pay in supplies, — ham, a sack of rice, a few feet of sausage, a canister of lard, or a bushel of sweet potatoes. One day a small boy said to his teacher, "Dad's going to kill hogs in a few days, and he told me to ask you if a shoulder of bacon would be acceptable."

"Very, indeed," said the teacher whose larder was nearly always empty. After waiting three or four weeks and not seeing the bacon, the teacher chided the lad for having forgotten to deliver his message. "I told him all right," replied the boy, "but he hasn't killed the pig yet."

"Why not," asked the teacher.

"'Cause he got well," said the truthful boy, who had been taking notes unobserved and who had not yet learned the commercial value of suppressing the truth.

It would be a great blessing to the people of Michigan and to the world at large if the slaughterhouses could be abolished altogether. If this cannot be, let us compel butchers to be decent and honest. There is a bill before the present Legislature, providing for an efficient law. This bill should be vigorously pushed. Every good citizen is interested. Diseased meats may injure those who do not eat them, indirectly if not directly.

VEGETABLES FOR DIABETICS

Mosse, of Toulouse, calls attention (*Revue de Medicin*, February, 1892) to the fact that there are certain carbohydrates, closely allied to starch, which may be used for diabetics without increasing the excretion of sugar. These are inulin, inosit, mannite, and levulose. It is also thought that lactose is more easily utilized by the system in these cases than other ordinary forms of sugar. Inulin is found in salsify. Mannite is found in certain roots, particularly chicory, Jerusalem artichokes, and the root of the dandelion. Inosit is the carbohydrate of green beans.

Mossé points out the interesting fact that the root starch of the potato may be used with comparative impunity by diabetics, notwithstanding the long-existing prejudice against the use of the potato in this disease, being decidedly less objectionable than cereal starch. Numerous cases have been recently published by French physicians which show that the use of the potato by diabetics lessens the patient's thirst, improves his strength and weight, and secures a considerable gain in his general health. French physicians require their patients to eat one to three pounds of potatoes daily.

INCREASE OF DISEASE IN SHEEP

THE editor of *Red Cross Notes* makes the following very apt observations:—

"The use of the thyroid gland of the sheep in the treatment of the peculiar disease known as myxedema has led to the discovery, according to A. Napier, that 'over fifty per cent of sheep's thyroids examined, showed more or less evident deviation from the normal.' Great stress is laid upon the necessity for the examination of thyroids, so that diseased tissues may not be used. The writer suggests that it might not be unwise to employ the same care when the sheep is to be administered by way of the kitchen. If thyroid glands are to be administered as medicine, it is certainly with the greatest care that the healthy gland shall be obtained; but if the sheep is to be administered as food, is it not of equal importance that the sheep shall be free from disease? Is the rest of the diseased animal any more fit for food than are its thyroid glands for medicine?"

It must be evident to any intelligent person that diseased thyroid glands cannot be good medicine, and that a sheep so diseased cannot be well. The man whose natural instincts are as wide awake as those of the sheep will follow its example by going to Mother Earth for his food supply instead of falling upon and devouring a poor, sick animal.

When a man eats apples or potatoes he takes care to know that they are in a healthy state. If the potato is rotten at one end the whole potato is thrown away. If a sheep has foot rot, is it customary to cut the foot off and eat the rest of the sick carcass?

Some prevalent practices in relation to animal food supplies are horribly gross. The average butcher shop is an abominably unclean place. The offal is fed to the hogs, men afterward eat the hogs, so that the slaughterhouse filth ultimately finds its way to human stomachs. What a contrast is presented by these horrifying messes when held up beside the delicious grains, fruits, and nuts which constitute man's natural bill of fare. The civilized man's instincts need reforming.

GRAPES IN KIDNEY DISEASE

DR. PECHOLIER, a French physician, has called attention to the fact that grapes are an excellent diuretic. Five pounds of grapes were given in three parts, and the effect produced was found to be much more vigorous than could be obtained from digitalis, iodide of potash, or milk. Only the juice of the grape was swallowed, the skin, seeds, and pulp being rejected. The patient was suffering from ascites with hepatic cirrhosis. Grape juice can generally be obtained, even though fresh grapes may be out of season.

THE USE OF THE POTATO

ACCORDING to statistics cited by Waldron in the *Revue pour Tous*, December, 1899, the potato is more largely used in Europe than any other food substance, the average amount annually eaten *per capita* being as follows in the different countries named: England, 242 pounds; Austria, 662 pounds; France, 697 pounds; Norway and Sweden, 739 pounds; Holland, 840 pounds; Germany, 1,298 pounds; Ireland, 1,364 pounds. The *per diem* consumption for England is eleven ounces per day, and Ireland, three and three-fourths pound, or nearly six times as much.

CRUEL LEGISLATION

An effort is being made in Congress to legalize the torture of cattle while in transit to great centers to be slaughtered for food by permitting them to be shut up in close cars for forty-eight hours without food or drink. The men who propose and urge the passage of such a law ought to be obliged to take a trip under just such conditions some hot, dusty, July day across the plains of western Kansas. Such a trip might prove highly beneficial in the way of producing an appetite for good food and pure water and other wholesome things. Possibly they might be better prepared to appreciate the rights and feelings of creatures which, while endowed with faculties much inferior to those who torture and persecute them, nevertheless set a worthy example to their persecutors in the better sense they show in the selection of their food and in the general conduct of their lives. The average ox follows nature far more closely than does the man who eats him. "A merciful man is merciful to his beast."

MORBID MENTAL STATES

Misanthropy, selfishness, and narrowness are productive of disease. Misers are almost always melancholy and dyspeptic. Thousands become ill by centering their minds upon themselves and attaching too great significance to minor symptoms. The writer once met a man who was quite terrified, thinking he was likely to suffer from an attack of apoplexy at any moment, simply because he now and then felt a peculiar tingling or other sensation in one of his legs. Persons suffering from neurasthenia are very likely to aggravate their maladies by introspection. The mind should be helpfully occupied by useful employment. An active interest in philanthropic work of various sorts is a useful means of counteracting the tendency to self-centering which often accompanies chronic invalidism. Thus one may help himself by helping his neighbor.

ANSWERS TO CORRESPONDENTS

Myocarditis — Heart Trouble.— Mrs. B., Battle Creek: "1. What is 'myocarditis,' and what are the symptoms? Is it curable? 2. What remedy, if any, is there for heart trouble in which there is leakage of the valves?"

Ans.— 1. Inflammation of the heart. Pain in the region of the heart and a quick, feeble pulse are the leading symptoms. Recovery usually occurs when the patient has the benefit of proper treatment.

2. There is no absolute cure for the disease. The important thing is to maintain vigorous health by attention to all hygienic rules, and to avoid violent exercises such as produce shortness of breath. A considerable amount of moderate exercise should be taken daily. Out-of-door life is essential. Care should be taken to keep the digestion sound by simple dietetic habits.

Ralston Clubs — Ralston Books — Deep Breathing.— W. L., Alaska: "1. Where are the headquarters of the Ralston Clubs? 2. Am I right in supposing that the Sanitarium is run on Ralston principles? 3. Where can one procure the Ralston books? 4. Ralston says draw in your abdomen when filling the lungs; 'Physical Culture' says let the abdomen expand with the chest. Which is correct?"

Ans.— 1. We cannot answer this question.

2. The Battle Creek Sanitarium has been in existence for thirty-seven years, having been established long before the word Ralston was known in connection with health questions.

The institution is run on Battle Creek Sanitarium principles.

3. Through some bookdealer, probably.

4. Ralston is not a recognized authority on any question pertaining to health. The writer is under the impression that there is no person by the name of Ralston, but that this is a name chosen for trade purposes. The abdomen should be expanded in filling the lungs. Just at the end of a very deep inspiration the abdomen will be drawn in slightly.

Stiff Knees — Ulcerated Catarrh — Ringing in the Ears.— Mrs. F. M., California: "1. Prescribe treatment for stiff knees. 2. What should be done for a ringing noise in the left ear? 3. Prescribe treatment for ulcerative catarrh."

Ans.— 1. Apply a hot fomentation to the knees at night. Cover with a small towel wrung out of cold water, apply mackintosh over this, and wrap closely with a thick woolen bandage over all.

2. There is probably nasal catarrh and catarrh of the middle ear. You should consult an ear specialist.

3. The nose must be thoroughly cleansed. Warm water containing a little carbonate of soda may be used for the purpose. The pocket vaporizer is useful as a method of applying antiseptic vapors to the affected surfaces.

Cottonseed Oil.— C. H., Oregon: "1. What is the food value of cottonseed oil? 2. Is there any other vegetable oil cheaper than olive but of equal value?"

Ans.— 1. Practically the same as that of other vegetable oils.

2. Peanut and cocoanut oil are probably of equal value.

Cow Butter — Diet.— H. F. L., Iowa. "1. Do you advise the use of cow's butter in preference to nut butter? 2. Does a diet composed of fruits, grains, and legumes, properly cooked, contain sufficient nutriment to sustain one who has hard mental or physical labor to perform?"

Ans.— 1. Ordinary dairy butter is preferable to butter made from roasted peanuts. Properly prepared nut butter, however, is preferable to dairy butter. Cocoanut cream is still more wholesome.

2. Yes.

Floating Specks — Pan-Peptogen — Bloating of Transverse Colon — Raw-Food Theory.— J. H. L., Utah: "1. What causes floating specks before the eyes in one who uses a health-food diet as outlined in the work entitled 'The Stomach?' 2. Will the use of Pan-Peptogen increase the motility of the stomach as well as the peptic secretion? 3. What causes bloating of the transverse colon directly after eating? Kindly outline treatment. 4. What is your opinion of the raw-food theory advocated by Dr. J. P. Thomas, of New York City, and others?"

Ans.— 1. There may be irritation and itching of the lids which gives occasion for rubbing the eyes, a frequent cause of floating specks. There may be other diseased conditions of the eyes. It would be well to consult an oculist if the specks are numerous and troublesome.

2. No, except indirectly. Its special action is upon the secretion.

3. The peristaltic movements set up by taking food into the stomach.

4. Raw food is wholesome provided the right sort of food is taken. Man was not intended to subsist upon raw grains. Ripe raw fruits and nuts are, however, the most natural dietary for the human species.

Neuralgia.— A correspondent inquires (1) what is the cause of neuralgia of the stomach? (2) What is the remedy?

Ans.— 1. Malnutrition.

2. Improvement of the blood and of the general health. A large fomentation over the stomach will generally afford temporary relief. Daily cold bathing, out-of-door life, and wholesome diet are necessary for permanent cure.

Hardening of the Liver.— A subscriber, Johnstown, N. Y., wishes to know the cause of and treatment for hardening of the liver. The patient is a man fifty-two years old, and smokes cigarettes.

Ans. — Hardening, or cirrhosis, of the liver is sometimes due to the habitual use of alcohol but is more often due to chronic indigestion. A fomentation over the liver twice daily, followed by a heating compress consisting of a moist towel covered with mackintosh and flannel to be worn during the intervals, is a remedy of value. Daily cold bathing, out-of-door life, and a diet restricted to fruits, grains, and nuts, are measures to be recommended. Very cold and prolonged cold

baths should be avoided. Excesses of all sorts, especially in the use of tea, coffee, tobacco, and alcoholics, are highly injurious.

Sour Stomach—Breads.—Subscriber, Minnesota: "1. For two or three hours after eating, stomach is very sour. Appetite good. Diet consists of home-made zwieback, butter, milk, cream, wheatlet mush, potatoes, fruit, white and graham fermented bread, and beans. Hands and feet sweat badly and are nearly always cold. Name trouble and prescribe treatment. 2. Please give recipes for making whole-wheat bread and gems, and corn and whole-wheat muffins."

Ans.—1. You are probably suffering from hyperpepsia. Avoid mushes, acid fruits, and cream. Eat your food dry and chew it very thoroughly. Make it consist chiefly of zwieback and wholesome nuts, such as pecans and almonds. Ripe olives may be used freely. Gluten biscuit and Sanitarium breakfast toast are especially to be recommended. Eat twice a day. Wear a moist abdominal bandage at night.

2. The recipes referred to will be found in "Every-day Dishes." Address, Good Health Publishing Company, Battle Creek, Mich.

Maple Syrup—Sugar—Chapped Skin—Infants' Toilet Soap.—T. K. M., Nebraska: "1. Do you object to the moderate use of maple syrup? 2. Where and at what price can a substitute for cane sugar be obtained? 3. How may chapping after daily cold bath be prevented? 4. What kind of toilet soap would you recommend for infants?"

Ans.—1. Maple sugar is as wholesome as cane sugar. Cane sugar in all forms promotes indigestion.

2. Address, Sanitas Food Company, Battle Creek, Mich.

3. By carefully drying the parts, and applying a little oil or fine vaseline or alboline.

4. There is nothing better than castile soap. The mottled sort is the best.

Macaroni.—J. A. S., Nebraska: "Is macaroni a wholesome article of diet?"

Ans.—Yes.

LITERARY NOTES

An author wrote a little book,
Which started quite a quarrel;
The folk who read it frowned on it,
And said it was immoral.

They bade him write a proper screed,
He said that he would try it.
He did. They found no fault with it,
And neither did they buy it.

—*Current Literature.*

The April number of **Good Housekeeping** contains many good articles with fine illustrations, among the best of which we notice one dealing with the girlhood of Lady Curzon, vicerein of India, formerly Mary Leiter of Chicago, and another concerning the ideal home life of Mrs. Navarro, once the celebrated actress, Mary Anderson. The account of a personal interview with Amelia E. Barr, the novelist, by Isabel Gordon Curtis, is exceedingly interesting. Other articles are "Winter Gardens," "A Springtime Luncheon," and "Recreation for Business Men," by Dr. Denison Wood, of Teachers' College, Columbia University.

Scribner's article on "The Treasury," by Frank A. Vanderlip, shows the mind of a financial expert as well as the journalist's power of expression. Benjamin Brooks gives a stirring description of the life "Below the Water Line," on a great ocean steamship, which is full of romance and hazard. Mrs. H. M. Plunkett speaks of an experiment in coeducation, tried two hundred years ago by the father of Jonathan Edwards; and John Fox's serial, "The Little Shepherd of Kingdom Come," gains new friends every day. In fact, the April magazine is full of good things.

The **Arena** opens with a paper by John M. Berdan, Ph. D., on "American Literature and the High Schools. There is a "Plea for Simpler Living," from Samuel M. Jones, mayor of Toledo, and a profound essay by Dr. Axel Emil Gibson. Various articles on all the solid questions of the day follow, written by well-known persons in an entertaining manner.

The leading article in the April-June **Forum** is a review of "American Politics," by Henry Litchfield West. A. Maurice Low discusses "Foreign Affairs." Alexander D. Noyes treats of the events and tendencies of the same period in the world of "Finance." Recent progress in "Applied Science" is described by Henry Harrison Suplee. A review of Sidney Lee's "Life of Queen Victoria," is contributed by Prof. W. P. Trent. Joseph Lohn treats of "Music," Ossian H. Lang, of the "Educational Outlook," and Dr. J. M. Rice of the "Educational Research." Other articles are contributed by Prof. Rudolf Eucken of Jena, Albert H. Washburn, etc.

In the April number of **Health Culture**, Mrs. Almon Hensley talks about "Teething Children" and what should be done for them, Mrs. Albert Turner on "Character Building," while an illustrated paper on "Securing an Erect and Graceful Carriage" is full of practical suggestions. "The Relations of Habits to Health" is considered by the editor, and the Answers to Correspondents, a most important feature of this magazine, is full of helpfulness to its readers.

That scholarly and painstaking authoress, Mrs. Annie Russell Marble, of Worcester, whose book on Thoreau was one of the best of the Christmas biography issues, has a very interesting "Story of a Real Daughter of the American Revolution," meaning thereby Mistress Mercy Warren, in the April number of the **New England Magazine.** She was wife of General James Warren and was influential in the highest councils of state and war during the time she lived, her opinion having weight with Washington and the other leaders on the American side. The melancholy ending of her life was little anticipated in the earlier years of her happy and almost splendid surroundings.

Much information timed exactly to the planting season is to be found in a paper by Eben E. Rexford on "Next Summer's Garden," in the April **Lippencott's.** Mr. Rexford speaks with authority, and his suggestions are thus most valuable.

"Lafayette's Last Visit to America," by Theodore Stanton, contains matter that is new and interesting in heretofore unpublished letters from George Washington Lafayette, son of the Marquis.

GOOD HEALTH

A Journal of Hygiene

J. H. KELLOGG, M. D., EDITOR

Subscription Price, $1.00 a year
Single Copies 10 cents : : : :
PUBLISHED MONTHLY BY

GOOD HEALTH PUB. CO.

115 WASHINGTON AVE, N.

BATTLE CREEK, · · · · · MICHIGAN

VEGETARIAN SOCIETY'S OCTENNIAL.

THE eighth anniversary of the Philadelphia Vegetarian Society was celebrated by a dinner at the Hygia restaurant, 1017 Walnut Street, on Monday evening last. Rev. Henry S. Clubb, president of the society, presided, and proceedings were opened by singing the doxology. Sentiments were responded to as follows: "To the Memory of Benjamin Franklin," by Mr. Rydeheard of Frankford; "The Memory of William Metcalfe," by the chairman; "The Memory of Graham, Alcott, and Teall;" "The Battle Creek Sanitarium and its Branch in Philadelphia," by Mr. Bradford; "The Hygia Restaurant," by Dr. Winner; "The Gospel Mission, 210 North Second Street," by Dr. Winner and Mr. Hirlinger; "The Physical Culture Movement," by Mr. Stoneback and his assistant from the celebrated M'Fadden restaurant in New York, where long lines are formed every day at noon to obtain admission, the most nourishing food being served at very moderate rates. A similar restaurant, Mr. Stoneback stated, would be opened on Market Street, near Fourth, in about two weeks, or as soon as its preparation could be completed.

THE IDEAL STEAM COOKER.

To the woman who is studying the most economical, cleanly, and least troublesome method of cooking in her kitchen, the **Ideal Steam Cooker** comes as a practical solution of every problem. It occupies little space, is easily cleaned, and is a complete cooking apparatus in itself. A whole dinner may be put into it at once, and each article will cook

perfectly. There is no worrying about food burning and pots going dry. There is no escape of steam and odor, making the kitchen a disagreeable and unwholesome place to the household generally.

The refilling tube for replenishing the water supply in the lower receptacle or boiler, is also an alarm whistle that begins to blow when the water runs low, and sounds for twenty minutes, loud enough to be heard in any part of an ordinary house, before the water supply is exhausted, so that with ordinary care, burning is impossible. It has also a self-regulating safety valve.

Furnished with a lamp, making it a complete cooking outfit and stove in itself, it is a special boon to "roomers" and those whose housekeeping facilities are limited to one or two rooms only. It is made in several sizes, and the manufacturers will gladly furnish information regarding styles, prices, etc. on application. Address Toledo Cooker Co., Toledo, Ohio.

PEROXIDE OF HYDROGEN.[1]

I HAVE used peroxide of hydrogen quite extensively for cleansing discharging ears, the nasal and accessory cavities, and have tried all the brands of the preparation in the market, and once thought one manufacturer's make as good as that of another, and bought the cheapest as a matter of economy, but recent experience has taught me that the difference in quality is greater than the difference in price. After an unpleasant experience with a solution of peroxide of hydrogen which severely injured the mucous membrane, I bought and examined, chemically, a bottle of each preparation of H_2O_2 in the market and was surprised to find so much difference. Some are useless, and others worse than useless because they contain too little available oxygen and too much free acids (phosphoric, sulphuric, hydrochloric). I now order Marchand's (medicinal) exclusively because I find it contains the desired quantity of available oxygen and not enough free acid to be objectionable, and its keeping properties are all that could be desired.

By inquiry I learn that Marchand's is the preparation that is used by almost all surgeons, and it is considered by them the standard.

J. P. Parker, Ph. G. M. D.

[1] Published by the *Annals of Ophthalmology and Otology*, of St. Louis, Mo., for April, 1895. Abstract from the *Times and Register*, June 8, 1895.

FREE TO ALL HOUSEKEEPERS.

The "1900" Ball-Bearing Family Washer.

A WONDERFULLY SIMPLE INVENTION THAT CUTS INTO HALF TIME, LABOR, AND EXPENSE OF WASHING CLOTHES.

No More Rubbing or Stooping — Monday's Drudgery No Longer to Be Dreaded.

EVERY HOUSEHOLDER IN THE LAND CAN HAVE ONE FREE.

In order to prove to the most skeptical that the "1900" Ball-Bearing Family Washer is unquestionably the greatest Home Labor-Saving Machine ever invented, we will send you one absolutely free, without deposit or advance payment of any kind, freight paid, on 30 days' TRIAL. If you like it, you can pay for it either in cash or on the installment plan at the end of the 30-days' trial. If you don't like it, all you have to do is to ship it back to us at our expense. You run no risk, no expense, no obligations whatever.

The "1900" Ball-Bearing Washer is unquestionably the greatest labor-saving machine ever invented for family use. Entirely new principle. It is simplicity itself. There are no wheels, paddles, rockers, cranks, or complicated machinery. It revolves on bicycle ball bearings, making it by far the easiest running washer on the market. No strength required; a child can operate it.

No more stooping, rubbing, boiling of clothes. Hot water and soap all that are needed. It will wash large quantities of clothes (no matter how soiled) perfectly clean in six minutes. Impossible to injure the most delicate fabrics. Saving in wear and tear of clothes, to say nothing of the saving of soap and materials, pays for machine in a short time. Don't be prejudiced. This is entirely different from and far superior to any other washing machine ever made.

The "1900" Washer is not a cheaply made machine. It is constructed of the very best materials; it is handsome, compact, and strong, and will last a lifetime.

We receive constantly thousands of flattering letters from people who have used the "1900" Washer. They are all unsolicited and must naturally be sincere. We shall be pleased to send to anyone writing for it our book of testimonials, which are guaranteed to be genuine and exact copies of originals on file at our office. Among the recent letters we reproduce the following: —

PEORIA, ILL., Sept. 2, 1902.
I have given the "Washer" a good trial, both with my washing and bedding. It is the best machine I have ever used for blankets; in fact, I think it is the best all-round washer I ever heard of. I would not do without mine.
MRS. LILLIAN SELLERS.

WASHINGTON, D. C., Sept. 8, 1902.
You will find inclosed payment for the "1900" Washer. It fully comes up to our expectations and is all that you have claimed for it. We will take great pleasure in recommending it to all who wish to avail themselves of one of the greatest labor-saving devices of modern times for domestic purposes.
WM. F. SALTER.

EAST PLYMOUTH, OHIO, Feb. 2, 1902.
P. O. Ashtabula, O.
We have been using the "1900" Washer since May 15, 1900. Have done over 1,200 washings, and I think it is good for as many more. We do family work from Ashtabula. We have used 8 different machines, and the "1900" beats them all for good and fast work and durability.
GEO. N. BURNETT.

HART, MICH., August 25, 1902.
Please find inclosed money order to pay for my washer in full. We are well pleased with the washer. A great many people have looked at it. My mother, 83 years old, and I, who am a cripple in a wheeled chair, have done our washing in it for the last three weeks.
MRS. ALICE ROUSE.

KANSAS CITY, MO., May 14, 1902.
I have given your washer a fair trial. It is the best washer I ever saw. It has washed our heavy blankets with ease. I washed them last spring and rubbed more than an hour, and yet they had to go through again, but the "1900" Washer cleaned them thoroughly. We do our washing very quick, and have no tired and worn-out feeling as of old. I wish every lady had a washer.
MRS. J. L. BANNER, 4203 Troost Ave.

It costs nothing to try the "1900" Washer. It is sent to any one absolutely **FREE** on 30 days' trial. We pay freight both ways. No money required in advance. Write at once; do it now, so you won't forget it, and a "1900" Washing Machine will be sent you free of all charges. Address "1900" Washer Co.,
303 L. St., Binghampton, N. Y.

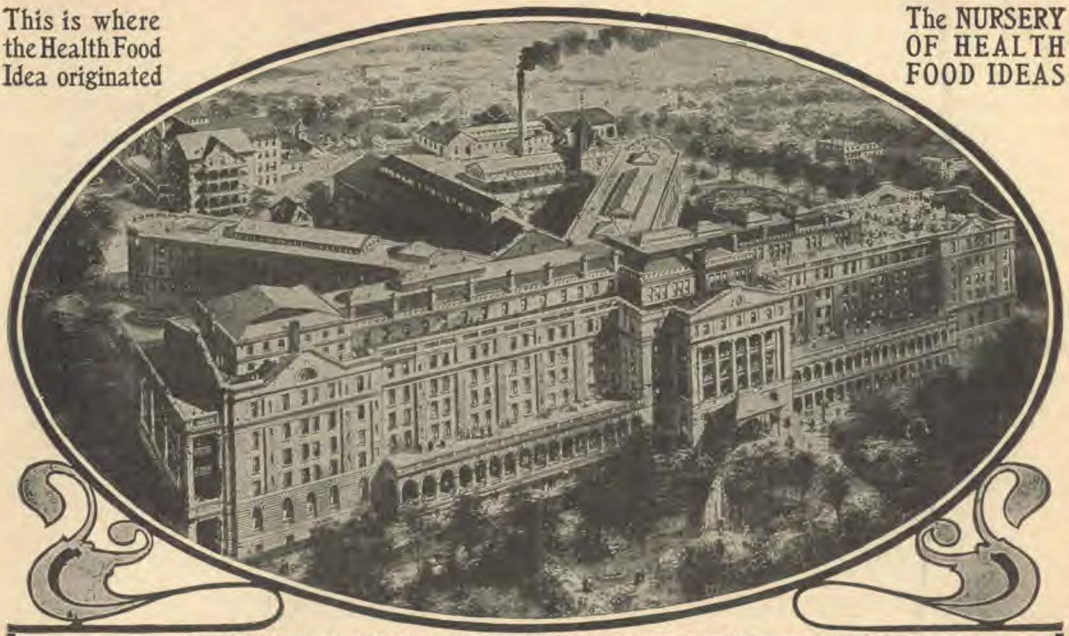
Vegetarian Cafes and Restaurants

Eating-houses where food prepared in accordance with the principles of rational dietetics and scientific cookery may be obtained, are now open in the following places:—

Vegetarian Dining Rooms, 17 Bromfield St. (elevator at No. 21), second floor, Boston, Mass.
Cafe, The Hygienic, 276 Euclid Ave., Cleveland, O.
54 Farrar St., Detroit, Mich.
755 Market St., San Francisco, Cal.
317 W. Third St., Los Angeles, Cal.
607 Locust St., Des Moines, Iowa.
Hygeia Dining Rooms, 58th St. and Drexel Ave., Chicago, Ill.
Hygienic Cafe, 118 Monona Ave., Madison, Wis.
145 So. 13th St., Lincoln, Neb.
Portland, Ore.
Vegetarian Cafe, 1635 Champa St., Denver, Colo.
Vegetarian Cafe, 322½ North Tejon St., Colorado Springs, Colo.
GOOD HEALTH RESTAURANT, 616 Third Ave., Seattle, Wash.
New Orleans Restaurant, 305 St. Charles St., New Orleans, La.
The Laurel, 11 W. 18th St., New York City.
The Vegetarian Restaurant, 391 6th Ave., cor. 24th St., New York City.

This is where the Health Food Idea originated

The NURSERY OF HEALTH FOOD IDEAS



THE NEW MAIN BUILDING OF THE BATTLE CREEK SANITARIUM

Is 550 feet long, the rear extensions aggregate five hundred feet more. It is five and six stories high, fire-proof, made of brick, stone and iron. There is a sun parlor, and separate bathing buildings for men and women. It has facilities for treating one thousand patients—as many as could be treated in the old main building and hospital, which were destroyed by fire Feb. 18, 1902.

THE MOST COMPLETE AND BEST EQUIPPED INSTITUTION OF ITS KIND IN THE WORLD

The Battle Creek Sanitarium Food Idea Is the **Health Food Idea** *to-day*

WE ARE THE ORIGINATORS

Do not buy so-called health foods simply because they are made in Battle Creek. Remember, the ***genuine*** bear the name of the Battle Creek Sanitarium Food Co., or the Sanitas Nut Food Co., Ltd. If your grocer does not keep them, write to us.

Why buy poor imitations when the real health foods cost no more?

INVALIDS—Attention

DIETETIC DEPARTMENT.

We announce the opening of a Special Correspondence Department for the benefit of invalids, dyspeptics, and those suffering from diabetes, rheumatism, and other maladies requiring careful regulation of the diet. If you will fill out the coupon below a blank will be sent you, which, after filling out, you will mail to us. This statement of your dietetic needs will be given attention by a member of our Medical Consulting Staff.

More than one hundred thousand former invalids will testify to benefits unforgot, a return to health, the natural result of nature's remedy, pure food.

Cut out Coupon and mail to us. No charge for advice.

Your Health

will be improved by the continued use of our foods, which contain every element necessary to man, woman or child. There is as much chance for improvement in foods as there is in ice-cream freezers or threshing machines. Why not try our new

Twentieth Century Diet?

You will like the new food, and your palate, your stomach and your pocket-book will be in sympathy with it, even if your mind is prejudiced before having tried it.

Free—A Brochure—Free

On the Battle Creek Sanitarium FOOD IDEA will be mailed to you free if you will send coupon with name and address plainly written. It will give you the whys and wherefores of our Pure Food Idea, the result of thirty years' study of the food questions. **Mail to-day.**

CUT OUT COUPON, SIGN AND MAIL TO-DAY TO

BATTLE CREEK *Sanitarium* CO. LTD.

BATTLE CREEK, MICH.

THE BATTLE CREEK SANITARIUM CO., LTD.
BATTLE CREEK, MICH.

Gentlemen—I understand you make a special line of foods for those whose health is so impaired as to render the use of ordinary foods injurious. If this is true, you would send me full particulars and a blank to fill out, so that no difficulties may be submitted to one of your Medical Consulting Staff, who will prescribe foods applicable.

Name _____

Town _____

State _____

COUPON 24

THE BATTLE CREEK SANITARIUM CO., LTD.
BATTLE CREEK, MICH.

Gentlemen:—Please send me, free of charge, Your Brochure on Battle Creek Sanitarium Food Idea.

Name _____ Town _____ State _____ COUPON 24

Directory of Sanitariums

THE following institutions are conducted under the same general management as the Sanitarium at Battle Creek, Mich., which has long been known as the most thoroughly equipped sanitary establishment in the United States. The same rational and physiological principles relative to the treatment of disease are recognized at these institutions as at the Battle Creek Sanitarium. Both medical and surgical cases are received at all of them.

BATTLE CREEK SANITARIUM, Battle Creek, Mich.
J. H. KELLOGG, M. D., Superintendent.

COLORADO SANITARIUM, Boulder, Colo.

ST. HELENA SANITARIUM, Sanitarium, Napa Co., Cal.

NEBRASKA SANITARIUM, College View, (Lincoln, Neb.

PORTLAND SANITARIUM, 1st and Montgomery Sts., Portland, Ore.
W. R. SIMMONS, M. D., Superintendent.

NEW ENGLAND SANITARIUM, Melrose, Mass.
C. C. NICOLA, M. D., Superintendent.

CHICAGO BRANCH SANITARIUM, 28 33d Place, Chicago, Ill.
DAVID PAULSON, M. D., Superintendent.

IOWA SANITARIUM, 603 E. 12th St., Des Moines, Iowa.
J. D. SHIVELY, M. D., Superintendent.

TRI-CITY SANITARIUM, 1213 15th St., Moline, Ill.
J. E. FROOM, M. D., Superintendent.

GARDEN CITY SANITARIUM, San Jose, Cal.
LOUIS J. BELKNAP, M. D., Superintendent.

GUADALAJARA SANITARIUM, Apartado 138, Guadalajara, State of Jalisco, Mexico.
J. W. ERKENBECK, M. D., Superintendent.

INSTITUT SANITAIRE, Basle, Switzerland.
P. DE FOREST, M. D., Superintendent.

SKODSBORG SANITARIUM, Skodsborg, Denmark.
CARL OTTOSON, M. D., Superintendent.

NEWFOUNDLAND HEALTH INSTITUTE, 282 Duckworth St., St. Johns, Newfoundland.
A. E. LEMON M. D., Superintendent.

NEW SOUTH WALES MEDICAL AND SURGICAL SANITARIUM, "Meaford," Gower St., Summer Hill, N. S. W., Australia.
D. H. KRESS, M. D., Superintendent.

FRIEDENSAU SANITARIUM, Post Grabow, Bez. Madgeburg, Germany.
A. J. HOENES, M. D. Superintendent.

MADISON BRANCH SANITARIUM, 426 State St., Madison, Wis.

MOUNT VIEW SANITARIUM, Spokane, Wash.
SILAS YARNELL, M. D., Superintendent.

DETROIT BRANCH SANITARIUM, 54 Farrar St., Detroit, Mich.

LOS ANGELES SANITARIUM, 315 W. 3d St., Los Angeles, Cal.

INSTITUTE OF PHYSIOLOGICAL THERAPEUTICS, 1809 Wallace St., Philadelphia, Pa.
A. J. READ, M. D., Superintendent.

CALCUTTA SANITARIUM, 51 Park St., Calcutta, India.

LONDON BRANCH SANITARIUM, 451 Holloway Road, London, N., England.
A. B. OLSEN, M. D., Superintendent.

SANITARIUM, Apia, Samoa.

TREATMENT ROOMS, Suite 219 Meriam Blk., Council Bluffs, Ia.

FOR YOU!!

We want you to help us double our circulation in the next six months. **Do any of your neighbors need this journal?** There are those who are sick and dying because they do not know how to care for their health. We want you to help us get this journal into their hands before it is too late to be of any service to them. **We have a great proposition to make you.**

Our Great Proposition

$1.75 FOR $1.00

If you will send us two yearly subscriptions to GOOD HEALTH, accompanied by $2.00, we will send you the journal for one year to the addresses given, and in addition will send you two of our most useful books, the retail price of which is $1.75; viz., "The Stomach," $1.50 and "Every Day Dishes," 25¢. This gives you a commission of almost 100%. This offer is good for sixty days only, so please send us your subscriptions as soon as possible.

Address

GOOD HEALTH PUBLISHING CO.,

Battle Creek, Michigan.

Battle Creek Sanitarium
GOLD INTEREST-BEARING BONDS

Better than Bank Securities or Government Bonds

DENOMINATIONS of $100, $200, $500, & $1,000. CAN BE BOUGHT NOW AT PAR. ARE LIKELY TO SELL AT A PREMIUM SOON. SPECIAL CONCESSIONS TO EARLY INVESTORS.

A Gilt Edge Investment

Central Trust Company of Illinois,

Trustees

($5,000,000 Capital)

For further particulars, address

BATTLE CREEK SANITARIUM

OR

HON. JESSE ARTHUR,

Care Review and Herald,

Battle Creek, Mich.

This magnificient fire-proof structure which has been in process of erection during the past year will be completed and dedicated about June 1, 1903. There will be accommodations in the main building for 350 guests, and accommodations in other buildings for 400 more patients. One hundred and seventy-five rooms have private baths. The new building is equipped with five hydraulic elevators, electric lights, a private telephone in each room, and all modern conveniences.

For full information concerning the facilities afforded, terms, etc., address:

THE SANITARIUM, Battle Creek, Mich.

THE COLORADO SANITARIUM,

Twenty miles northwest of the city of Denver, is a well-equipped and well-regulated institution for the treatment of all chronic disorders. Buildings with all modern conveniences, including steam heating, electric lights, elevators, gymnasium.

Baths of every Description including the Electric-Light Bath.
Massage and Manual Swedish Movements.
Electricity in Every Form.
Medicated-Air Rooms, for the treatment of diseases of the lungs.
Special Accommodations and Separate Building for Tubercular Patient
Classified Dietary.
Laboratory of Hygiene, for Bacteriological, Chemical, and Microscopical investigation.
Experienced Physicians and well trained-nurses.

COLORADO SANITARIUM,
Boulder, Colorado.