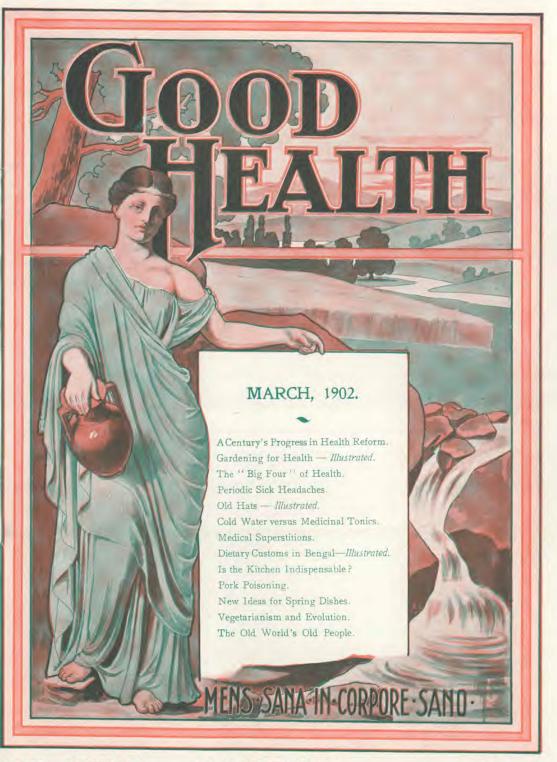
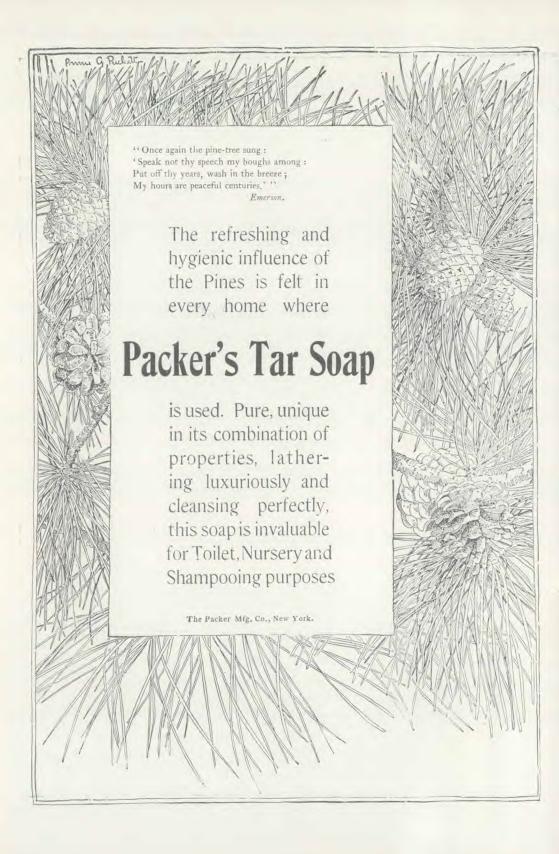
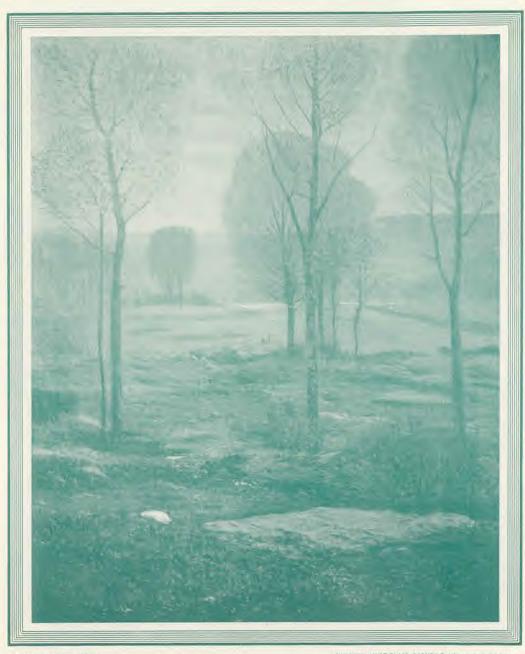
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# GOOD HEALTH

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# A CENTURY'S PROGRESS IN HEALTH REFORM.

BY J. H. KELLOGG, M. D.

I N the early years of the last century, a small body of earnest souls, seeking an atmosphere of religious and social freedom, under the leadership of Rev. William Metcalf, came to this country from the vicinity of Manchester, England, and settled in Philadelphia. These sturdy pioneers of the cause of emancipation from the thraldom of established opinion, brought with them the foundation principles of the healthreform movement which has since assumed so great proportions, and spread to all parts of the world.

In England they had stood for years under the teachings of a scholarly and thoughtful clergyman, who, through reading, research, and experiment, had reached the conclusion that animal flesh was never intended - at least away back in the beginning of things - to be employed as an article of food; that it is not good for man's present comfort and well-being; that its use is not conducive to the prolongation of life. These highminded men were so thoroughly persuaded of the correctness of this thought, and of its far-reaching significance in relation to human health and happiness, that they organized a church, in which abstinence from flesh eating was made one of the essential articles of the creed. It is gratifying to notice that this church still exists in the city of "Brotherly Love," and that regular weekly services

are held, under the leadership of the Rev. Henry S. Clubb.

Through the efforts of these earnest thinkers, and perhaps through other channels also, men and women here and there, about the country, began to think more about their way of living, and its after consequences.

In 1830, Sylvester Graham became acquainted with Mr. Metcalf and his work, and began at once to investigate from a scientific standpoint the mode of life adopted by his Bible Christian friends. The result was that he identified himself with their work, lecturing and writing upon temperance, vegetarianism, and kindred subjects. In consequence of this, Graham boarding houses were opened in New York, Boston, and elsewhere.

So successful was he in this movement that his name has been peculiarly immortalized. "Graham bread" is now to be found upon every hotel menu, and is a household word. It may be obtained in almost any bakeshop in the United States and England, and is equally common in all German-speaking countries on the continent of Europe.

About 1831, Joseph Bates gave up the use of tea and coffee in the belief that they were poisonous and stimulating in their effects. As far as we know, he was the first to advocate reform in this particular. He was soon re-enforced, however, by Sylvester Graham, who, in his lecture on "The Science of Human Life," spoke very strongly against both tea and coffee. Mr. Graham's fellow-workers shared his views on the subject, and so the reform spread. People awakened to the deleterious effects of these beverages, and substitutes for them began to appear on the market.

Dr. William Alcott became identified with the movement soon after Mr. Graham, and in 1835 began the publication of a monthly periodical, called *Moral Reform*, which was succeeded by *The Library of Health*.

Later, Dr. R. T. Trall and other men raised the banner of reform, and with voice and pen began to cry out against the prevailing customs of the age in diet, dress, and other perverted habits which had fastened themselves upon modern life. Ripley, Emerson, Thoreau, the Alcotts, Dana, Hawthorne, Horace Greeley, Margaret Fuller, and scores of others less known in the literary and thinking world of the United States, joined the movement, and added their voices to the general demand for a radical revolution in habits of life.

The Brook Farm experiment was a long step toward simple living. Rev. George Ripley, a Unitarian clergyman of saintly life, fine scholarship, and high culture, was the soul of this enterprise.

The purpose of the movement is thus indicated by the founder himself: "To insure a more natural union between intellectual and manual labor than now exists; to combine the thinker and the worker, as far as possible, in the same individual; to guarantee the highest mental freedom, by providing all with labor adapted to their tastes and talents, and securing to them the fruits of their industry; to do away with the necessity of menial services by opening the bene-

fits of education and the profits of labor to all; and thus to prepare a society of liberal, intelligent, and cultivated persons, whose relations to one another would permit a more wholesome and simple life than can be led amidst the pressure of our competitive institutions."

The work of the associates was carefully organized, each having his place and share,—enough for health and cheerful ness, but not enough to check the intellectual and the spiritual culture which constituted the supreme end sought.

Dr. Codman says, "I have been requested to give my personal testimony as to the effect of a vegetarian diet adopted by some at Brook Farm. I willingly do so. For two or three years the farmers, mechanics, and others worked side by side, and no one could conscientiously say that in ability to work in any field of labor, physical or mental, the vegetarians were outworked by their companions. Their health was fully maintained, and their mental cheerfulness was surpassed by none."

In dress, likewise, there was great simplicity. Many of the women wore short skirts and knickerbockers for their work, and when it was over, attired themselves in the simplest styles of the period. The men, for labor, wore a blouse of blue or brown. Except in the "company rooms" there were no curtains or carpets.

One of the participants in the Brook-Farm experiment pays this tribute to its life: "The influence of the fine, magnanimous living there must have carried blessings to all parts of our land as its members scattered."

In 1849 Mrs. Amelia Bloomer first appeared in the divided skirt, which has since been known as the Bloomer costume. When Mrs. Bloomer started upon her crusade against the dresses worn by

women, it must be remembered that hoop skirts, so large around that a woman could scarcely turn in a room, and corsets so tight that it was almost impossible to breathe, were the prevailing fashion. Mrs. Bloomer rebelled, and designed a garment that consisted of pantalettes to the ankles, over which was worn a short skirt.

Horace Greeley, who conscientiously fought all woman's-rights movements — for they seemed to him unwomanly — describes the Bloomer costume thus:—

"It was an attempt to substitute for the cumbrous, inconvenient, inelegant, and in many other respects objectionable, dress, which then and has since prevailed, one of light, graceful, and convenient character."

Elizabeth Cady Stanton, Susan B. Anthony, Lucy Stone, Charlotte B. Wilbur, and other women whose names are equally well known, adopted Mrs. Bloomer's costume, and wore it conscientiously for several years, or until public opinion compelled them to lay it aside.

In 1856, Ferdinand Schumacher established the first oatmeal factory. It had a capacity of about ten barrels a day. His friends warned him that "while oats were good enough for horses, he could never get the Yankees to eat them," but somehow the Yankees took to the oats, and Mr. Schumacher was soon able to double the capacity of his mill. During the next ten years he found it necessary to build much more extensive mills, and added an elevator and a pearled-barley mill. In order to supply the demand for Graham flour and cracked wheat, or farina, a large flouring mill was purchased and run in connection with the oatmeal mill. And then came another large oatmeal mill. The

history of this industry is one of constant growth, until at the present time it is estimated that the mills owned by the American Cereal Company, whose principal trademark is "Quaker Oats," have a daily output of twelve thousand barrels, while the Northwestern Oatmeal Combine probably manufactures ten thousand larrels daily, making twentytwo thous in! barrels of oatmeal from these two companies alone. When we have added to this the scores of other cereal foods that are being manufactured all over the country: Pettijohn's Breakfast Food, Vitos, Cream of Wheat, Granose Flakes, Granut, Granola, and other cereal foods put out by the Battle Creek Sanitarium Health Food Company; the nut foods manufactured by the Sanitas Nut Food Company; and the Malta-Vita, and other cereal foods manufactured by Battle Creek's twentythree other health food companies, there is surely no reason why the strictest vegetarian should not have pure, wholesome food in abundance, and without extra effort.

More than twenty-five years ago, the Battle Creek Sanitarium began to manufacture cereal substitutes for coffee in a very small way, but the business has grown to a product of many tons daily. Other firms have engaged in the same enterprise. It has come to be, in fact, a business which affords employment for hundreds of people and numerous extensive factories in different parts of the United States.

In 1864 a dress-reform movement started in connection with the Battle Creek Sanitarium. The first attempts were drastic and thoroughgoing, and perhaps laid more stress than was necessary upon the length of the dress, but the idea was right: the principle was sound and true, and it has survived all

the ridicule heaped upon it. The essential features looking to perfect freedom of bodily movement, and equable clothing, have developed into a most complete and perfect artistic dress system.

Ten years later a series of lectures was delivered in Boston on the subject of dress, the purpose of which, as stated by the committee that had it in charge, was, "to arouse women to a knowledge of physical laws, to show them how their dress defies these laws, and what different garments they should adopt." Nearly all of these lectures were delivered by women physicians of recognized ability and position, and they did much to break down the prejudice which existed against reformed dress.

In the early days of the last century, Priessnitz was astonishing the world by cures wrought at Graefenburg, in Austria Silesia, by the use of simple water, with plain diet, and abundance of outdoor exercise. Chronic invalids were making pilgrimages to the little mountain hamlet in which this self-taught but shrewd and successful reformer resided, and soon physicians as well as laymen from all parts of the world were sitting at the feet of this medical magician.

Many thought him to be the master of the black art, and attributed his cures to the use of occult charms and cabalistic methods, but wise observers see to-day that the secret of his success lay in the utilization of the forces of nature, and in the recognition of the fact that man has within him a power which creates and heals; that doctors, medicines, and remedies are alike powerless to heal, but serve only to aid in supplying favorable conditions for the operation of the natural healing powers of the living organism.

Later, Jacob Bigelow, Oliver Wendell

Holmes, and other master minds in this country, as well as in Germany and England, took up the cause of medical reform, and for more than half a century there has been a steady advance in the development of rational physiological therapeutics.

About the middle of this century some humble citizens of Battle Creek, Mich., became inspired by the idea that disease was the result of wrong habits of life, and could best be cured or escaped by following the injunction of the prophet, "Cease to do evil; learn to do well."

On Sept. 5, 1866, these men organized a philanthropic association consisting of men and women interested in the promotion of food reform, dress reform, and all sorts of sensible, sanitary, and social reforms. A year later they incorporated the association so as to make it a perpetual institution, and donated their time and money to give it a start. From this insignificant beginning it has grown to be the greatest center of scientific sanitation and rational healing in the world, having more than sixty branches in the United States and twelve foreign countries, that all together treat more than ten thousand sick people.

The one condition which has made this growth in facilities and appliances possible, was that all earnings, and accumulations from all sources should be devoted to the betterment of the institution and the advancement of the principles for which it stands—a condition which has been scrupulously observed, no one ever having shared in any way whatever any portion of the earnings.

This institution has never been the advocate of any single remedy; it has never been a one-sided or a one-idea institution. In the early days, when it was first established, water was one of

the principal remedies employed, nevertheless it was never the only one; correct habits of life, correct dress, correct diet, pure air, electricity, exercise, and a variety of other most potent agencies for healing have also been used from the very first.

It has been the work of the Sanitarium to teach a science of health by which the sick may recover, and be able to keep well after recovery. If it is not possible to say that the physiological method has acquired universal adoption, it may be said, without fear of contradiction, that the physiological method — the systematic employment of physiological agents alone in the treatment of disease — has received universal recognition and approval as a method of the highest value and efficiency, by scientific physicians of every school throughout the whole world.

#### GARDENING FOR HEALTH.

BY ANNA CLIFF WHITE.



READY FOR WORK.

A TRANSMISSION of Nature into the home at the coming of winter is instinctive to all possessed by a love-for the beautiful. Winter with its attractive accompaniments

of diamonds and crystals, snow and ice, cannot woo us from the lovely things of summer. So in the fall, when the biting, roaring winds announce the near approach of Jack Frost, we gather our fragile

treasures and hurry them to the protecting shelter of home and greenhouse and conservatory. The drawing room of the palatial mansion loses its sharp angles and corners in glorious orchids, branching palms, and stately chrysanthemums; the laborer's cottage is transformed into a bower of beauty by clinging vines, dainty ferns, and substantial geraniums; the sick room loses its dreariness, and its occupant forgets the howling messengers outside, in the sweetness of delicate primroses, bright begonias, and sweet-faced pansies.

And so we brighten our homes all winter with these ministers of cheer, and when the spring dawns, tired of our winter confines, we watch with delight the first upspringing of the crocuses and snowdrops and pansies in the sheltered nooks, and the gradually increasing greenness of the grass plat; and we begin to read our seed catalogues, and hold family councils as to the planting of this bed, and the shaping of the other, and the adding of a third.

In this day of combination offers and premiums, of florists' catalogues and gardening journals galore, one can plead neither ignorance nor poverty as an ex-

cuse for a yard or house destitute of plants and flowers. Not every one can afford the rarer sorts which florists advertise so eloquently every season, but all may indulge in a five-cent package of garden seeds, which with a little attention and some care will reward the owner with a multitude of gaily colored and sweetly odorous



A REAR VIEW.

blossoms all summer. Besides, it is much cheaper to have your yard, especially your back yard, bright and wholesome, a fit playground for your children, than to make it a dumping ground for ashes, kitchen slops, greasy pails, and old refuse barrels, with bare corners soaked with dishwater and wash suds, and adorned with empty tomato and vegetable cans.

Gardening as an aid to health dates back to the days of our grandmothers, while gardening as a recreation has become a modern fad. Aside from personal satisfaction in the enjoyment of perfect blossoms and the propagating of new strains of plant life, there is practical education in gardening, including an aroused appreciation for everything beautiful in nature. and the cultivation of health. Neatly kept walks and lawns, well-trimmed shrubbery, nicely arranged yards, and good sidewalks are evidences of a city's prosperity, as well as an indication of the character of the pri-

vate householder. So this subject involves another feature — that of civic benefit and improvement.

Every home should have a garden, and every child in the home should have his share in that garden. Turn into the lap of mother earth, the quiet, studious child, who, to the detriment of his health, loves his books better than exercise. Interest him in the great book of nature; give him simple lessons in botany, and awaken his mind to the wonderful lessons of life that may be gleaned from seeds and

plants. Dress him in plain, easy-fitting garments, and let him delve in the wholesome dirt and inhale the pure air and glorious sunshine, and your sickly student will develop a strong physique, with mind and thought brighter and broader for the body culture he has received in his mother's dooryard. Your boisterous, romping, shouting child will develop

qualities of gentleness, lovingkindness, thoughtfulness, and intelligence as he cares for his little corner of treasures, and meets each day some new phase of life which absorbs his growing thoughts. Teach the children to take an interest in natural things, fill their small minds with the beautiful and wonderful things of God's creation, and there will be no room for the world's evil to creep in and develop later. Henry Ward Beecher advises:

"Always encourage your child to pursue gardening. A boy that can bury a chipmunk after he is dead, can plant



THE MAN WITH THE HOE.

a gladiolus; after it is once planted there is nothing to be done but to keep the bed weeded; as soon as the plants blossom, they are so gorgeous that the boy is sure to be very proud of them. You can get them for a few cents apiece, and so can furnish, for a dollar or two, a bed of gladioli that will blossom more than two months, and be pre-eminently gorgeous. Then give him a little instruction, and let him try something else: a row of poppies, perhaps; they sow themselves. Get the French poppy, which is



NEITHER ARTISTIC NOR HEALTHFUL.

single, but runs through the most exquisite range of color — all combinations that you can imagine. Also the perennial poppy, which soon becomes an established root; in their time the poppies are so gorgeous that every one who comes near them has to put on smoked glasses, as it were. They fill a child's eye. They are for him a magnificent success. Every one admires them; and this admiration excites his ambition. The boy, who goes through that one summer, and finds every one spontaneously praising what he has done, generally has the horticultural fever; and

when he has once caught it, he never recovers!"

The first essential to successful gardening is the bed; the second, tools; the third, seeds or cuttings; the fourth, an interested owner.

Choose for your bed a situation that will give the best general effect, and that will be best for the seeds planted therein. Long, narrow beds beside the house, along a fence or wall, or bordering the walk, are generally easier to cultivate than the round or fancy-shaped



A NATURAL POSE.



GET DOWN TO YOUR WORK.

ones in the center of the lawn. Study up the different soils in which different plants flourish. Take a day off, and with the children make an excursion to the woods, bringing back with you baskets of pretty wood vine and fern roots and rich mold. See that the earth is spaded up thoroughly and deeply, and that all lumps and clayey chunks are knocked to pieces. Then, having fertilized well, rake the earth smooth, and mark out lines for planting. So much for the bed.

Gardening tools, like kitchen utensils, should always be strong, but light. Don't burden your first horticultural attempts with a great iron spade, a heavy rake and hoe, a pair of tailor's shears so weighty one has to employ both hands in

using them, and a coil of wire thick enough to build a farmer's fence. At any toy store may be purchased small, strong rakes. hoes, and spades, just the size to make ownership a delight to the children. Medium - sized ones for adults may be found in the hardware stores. Add to these a pair of very sharp shears, a ball of strong twine, a small hammer and a sack of shingle nails, a pair of old gloves, a thick cloth pad

about twenty-four inches square, to kneel upon when weeding and planting, and a small, strongly woven basket, and you are ready for work.

Having all things ready, what shall we plant? If you are working in the back yard,— and you, supposedly, belong to that class of citizens who object to "Queen Anne fronts and Mary Ann backs,"— plant vines, and screen the high board fences surrounding the yard. American ivy is a quick grower, and has a thick, luxuriant appearance. Place a pole in some corner where plenty of sunshine will reach it, and in a circle around its base, plant climbing nasturtiums. Before the middle of summer you will have a matchless "glory pole."

Run morning glories over the back porch and windows, or make a pretty vine arbor for the children's retreat when the summer sun grows strong.

In the front yard one plants more for effect. Do not get too many colors, and do not have so many flowers that time and attention perforce must run short. If you have a fence to screen, plant in front of it a row of queenly dahlias or dainty sweet peas. In front of these plant geraniums. The thick, compact growth of the latter will shade the roots of the former, and keep them more moist during the hot, dry days of summer. In front of the geraniums plant sweet elyssium or daisies or feverfew. If you want something that will blossom, yet not be much trouble, sow a bed of petunias, or make a bed of scarlet geraniums. Devote one corner to pansies or

blue violets and myrtle, where they may grow as wild and lovely as they choose. Train a fragrant jasmine or honeysuckle over the front piazza, or if you wish beauty and variety of autumn coloring. plant the gorgeous woodbine. Perhaps nothing can equal the beautiful kudzu vine for quick growth, profuse blooming, and general satisfaction to the amateur gardener.

Make everything neat: tasteful, and convenient; do not crowd; do not neglect; and do not have so many flower beds that you are forced to do without a lawn. Have plenty of grass, and care for it until it grows like velvet. Insist upon the children doing their share of the work; make them responsible for their own plants, but instill into the work the enthusiasm of play. It must not become drudgery. Make your yards attractive, and the children will have little desire to play in the dusty, noisy streets.

Is there a wrong way of gardening? As in all things. It is neither wise, romantic, nor hygienic to go out in the morning to trim shrubbery or weed beds when the grass is heavy with dew or the vines hanging drenched after a rain. Neither is it a good plan to wear a long skirt, thin shoes, a thick, heavy sunbonnet, or a pair of tight kid gloves,



VERY CONDUCIVE TO BACKACHE.



HOEING FOR HEALTH.

old though the latter may be. Have a short, one-piece dress if you wish to combine usefulness, appropriateness, and comfort in a gardening costume; then when you reach to catch an overhanging bough, or to tie a straying tendril of vine, you will not feel that you are either tearing skirt and waist from the tenacious grasp of safety-pins, or opening an unseemly gap between the two garments. Thick cotton gloves are the best because they are more flexible than kid gloves, especially when the latter become hard and dry with perspiration. The cotton gloves are porous, allowing the air to reach the hand, and therefore are not so warm. A large sun hat is better than the close sunbonnet, because it allows the air to circulate around the flushed face and head, and is not so heavy as the bonnet.

One should not sit on the damp ground when weeding beds or planting seeds; neither should one stand up and bend over, for this is conducive to backache. Get down to your work; and use for weeding, the large pad mentioned before in this article. To make it: take a piece of linoleum about twenty-four or twenty-eight inches square. Lay upon this a piece of stiff linen, then a couple of layers of cotton batting, then a piece of linen or some stout dark cloth. Tack it

through here and there with strong twine, as you would a tie-down for a bed, and then bind the edges with strong braid, leaving a loop at one corner for a hanger. This mat will thoroughly protect your skirt from becoming damp and soiled, besides being softer for the knees than the hard sod.

Don't clinch your hoe or your rake in a death-like grasp, and work as if you were the living personification of Markham's poem. You are hoeing for health and beauty — not for fishworms. Keep your spine straight, and use the muscles of your arms and waist. Make your work a pleasure not arduous toil, and you will derive both happiness and profit from your horticultural pursuits.

## THE FOUR ESSENTIALS FOR HEALTH.

BY FREDERICK M. ROSSITER, M. D.

H EALTH is that condition of structure and function that most perfectly fulfills the object for which each human being exists, or possibly it would be better to say, ought to exist. We are well aware that there are many who do not exist primarily for health, but rather for the pleasure of the senses. There is no more effectual way than this to defeat the attainment of the greatest blessing of life. Nothing is more dangerous to health than self-indulgence.

Health when viewed from a high standpoint is synonymous with holiness, which means to be completely whole, and hence concerns both character and body.

Speaking from the purely physical standpoint, it is plainly evident that almost all have sinned, and come short of the glories of health and holiness. That the wages of sin is death is attested on every hand. Sin, whether physical or moral, gives rise to a wandering spirit. "And they shall wander from sea to sea, and from the north even unto the east" in quest of health, and many "shall not find it." No one can obtain health by "traveling for health" unless the causes that produce sickness are removed.

From the time of Ponce de Leon to the present day the fountain of youth and the elixir of life have been vainly sought by an immense army of peripatetic health seekers. Health is maintained only by obeying physiological laws. A mad rush to the Alps, a sixweeks' winter cruise in the Mediterranean, or a trip to California, is in no wise a compensation for years of violation of nature's laws. The causes of disease are not supernatural, but natural, and before any one can be assured of health, all

such causes must certainly be removed.

In order to have health in its fullest measure, and to maintain it, attention must be paid to four great principles which lie at the bottom of physical life. Upon these as a foundation the highway to health is built.

#### Alimentation.

One of the strange things of the day is, that man with all his boasted wisdom and superiority often manifests less discretion in the selection of his food than the animals. The animal at best is still only an animal, but he is true to the instincts of nature. The natural instincts and the intuitions which guide the animal are, as a rule, very safe for man to follow; and the more closely he follows them, the closer is the relationship he holds with nature.

It is evident from study and observation that the chief aim of man's existence was never intended to be the spending of his time in working for bread, and the supplying of his family with food. However, at the present time the majority of civilized mankind are laboring ten or more hours a day for the mere necessities of life. We are reminded of the somewhat humorous words in Proverbs, "All the labor of man is for his mouth." What shall we eat and wherewithal shall we be clothed have become the all-absorbing questions to the exclusion of the development of the nobler, God-given qualities that lift man into the higher sphere which he was intended to fill.

The original plan of life has been entirely perverted, and as a result, there is more sickness in the world to-day because of errors in diet, errors in eating, and perverted appetites than from

any other one cause. Well may the prophet ask even now: "Wherefore do ye spend money for that which is not bread? and your labor for that which satisfieth not?"

The earth is the primary source of all food. The soil is the greatest and the most marvelous laboratory in the world. In it are taking place the most mysterious processes manifested to us in the form of vegetable life. The vegetable kingdom is the secondary source of food, and it supplies the entire animal creation with food. Animals are the tertiary source of food. The plant is the food builder for the animal kingdom, and the animal is the food consumer. For this reason the animal is not intended as the original source of food for man, nor is animal food a food of the first quality, It was designed to be used only in the most extreme emergencies.

In plants, or food builders, are found the primary food stuffs repeated over and over again in many varieties of foods, but in different proportions. The food elements required by the body are few in number, but arranged in an infinite number of combinations; and these, together with the peculiar flavor of each, furnish mankind with all the variety needed. The five or six food elements in their various combinations supply all that is of physiological value in the economy of life. The individual flavors of foods probably possess no food value; they cannot be analyzed, and doubtless are provided for the purpose of satisfying the peculiarities of taste, and of leading to the selection of certain foods suitable to the needs of the body under different conditions. It is in this selection that the natural instincts and intuition play so important a rôle.

The selection of food, the preparation of it, and the eating of it are voluntary —

a matter of choice. Man is responsible for these three steps. He may select foods that are pure, wholesome, and health producing. He may prepare them in a simple manner, and masticate them thoroughly. This is the most important part of the "Big Four." Foods that are selected with disregard to their nutritive value, that are served in the latest French method, and eaten with "gustatory lightning speed," sooner or later produce so much physical discord that a man is driven entirely off the road to health, and has so hard a time on the road of disease, that his attending physician recommends a trip abroad more for his own rest and comfort than for that of his patient.

A food is not a food to the body until it is carried to each little individual cell of the many billions of cells; until it is carried in such a form that it may be used in the process of repair. Food in the stomach is still outside the body. It must be digested, absorbed, carried by the blood to the cell, and assimilated before it is of service. These four stages of the route are involuntary, are directed by the sympathetic nervous system, and represent the mysterious life hidden in each body, ever carrying on the work of repair and healing. If the voluntary part is well performed, there need be no concern about the perfection of the involuntary processes.

#### Respiration.

One may live weeks without food, several days without water, but only a few minutes without air. Nothing is more distressing than air hunger. When one is deprived of fresh sweet air for only a few minutes, the opening of a door or a window with the inrushing of the truly vitalized air is like the wafting of a wave of blessing from heaven. We feast upon it. The chest heaves with

deep inspirations. An inexpressible feeling of calm and assurance pervades the mind, and the entire body throbs with new life.

The chemist can analyze air with the greatest precision, and the physiologist graphically describes the journey of air from the nose, through its heating and moistening chambers, through the pharvnx, then into the voice box, down a cylindrical tube, called the trachea, or windpipe, into the tree-like branching tubes of the lungs, into passages that grow smaller and smaller until they are hairlike, on into thousands of minute chambers, off from which open millions and millions of little rooms called air cells, or air sacs. He can trace the air even farther. He tells us that the oxygen, which is one fifth of the volume of the air that enters the lungs, passes out between the edges of the cells that form the walls of these sacs into the lymph, and from these into the billions of blood capillaries. But how it passes from the lungs into the blood he cannot tell. This is the mystery of life. It is the divinely appointed process. In this case, as with reference to every other great truth. we can trace the process a little way, we can see a short distance; but the mysterious closing horizon stops the view of all alike, and in every direction. We only know that there is a boundless expanse of truth beyond.

In our food, nitrogen is absolutely essential to life. But four fifths of the air we breathe is nitrogen, and yet not one atom is taken up by the blood. Seventy-nine parts enter the lungs, and seventy-nine parts leave again. In the laboratory it is a difficult matter to separate the oxygen from the nitrogen, but in the lungs the process is going on night and day without a thought from us.

Just as food in the stomach and intes-

tines is outside of the body, so is air in the lungs, and if it simply passed in and out of the lungs, it would do but little good.

But each one of the twenty-two billions of red-blood corpuscles takes up a tiny cargo of oxygen and sunshine, and carries it rapidly to the remote parts of the body where it is discharged. Then each working cell of the tissues breathes and breathes, and is refreshed and invigorated. This is another of the mysteries at work in every animal organism.

When one habitually breathes poor, lifeless air, and sleeps in poorly ventilated rooms, the system is deprived of oxygen, and the vital fires burn low. A pale, expressionless face indicates much more than can be seen. It indicates that each red-blood cell is pale because of air starvation.

The restriction of respiration by tight clothing, by neglect of exercise, by bad positions, or by living in poorly ventilated rooms, is one and the same in final results.

He who appreciates the God-given privilege of breathing pure, fresh air, and neglects no opportunity of letting the breezes of heaven blow freely throughout his system, has within himself one of the greatest healing and healthproducing agencies known.

The systematic deep breathing of cool air electrifies the mind, acts as a tonic to the digestion, energizes the heart, strengthens the muscles, increases the resistance to all diseases, and daily adds to the endurance.

#### Elimination.

Proper elimination involves not only all that has been said on alimentation and respiration, but it requires also moderate exercise and recreation, bathing, and the proper clothing of the body.

The waste and poisons produced in the

body are sufficient to cause death within forty-eight hours, probably in less time, if all were retained.

The fiat that man should earn his bread by the sweat of his face is as important as it is physiological. It is a basic principle in the life of every organism.

Man is the sum total of all his billions of little individual units, called cells. Each cell breathes, and eats, and moves, and gives off waste. Each cell undergoes wear and tear, and the elimination of broken-down material becomes a necessity. It is the accumulation of all these wastes that endangers the delicate living machine.

Every thought is at the expense of wear in a brain cell. Every motion causes untold numbers of muscle cells to consume food and to cast out ashes. The heart beats, the stomach digests, every living tissue works and lives, only by taking from the blood and giving back again.

The blood, after percolating through countless capillaries and giving up food and oxygen, returns to the lungs, kidneys, and skin, laden with waste and poison.

Exercise increases the circulation, causes more blood to flow in a given time through the lungs, the kidneys, the muscles, and the skin, and hence the blood is more quickly purified, cleansed, and sent bounding again through the body on its mission of life and healing.

Bathing is necessary to the growth of all animal and vegetable life. Dust and dirt are washed from plants by the beneficent showers from heaven. After such a cleansing every plant is greener, more fragrant, breathes more freely, and grows more vigorously.

When it is remembered that there are nearly ten miles of sweat ducts distributed through the skin discharging from two to three pounds of waste in various forms upon the surface every twenty-four hours, the importance of bathing for cleanliness is at once apparent. Two million five hundred thousand pores need to be kept free and open.

Bathing the face with cold water is refreshing to the mind and brain, bathing the chest is refreshing to the lungs and heart, bathing the skin over the liver, animates that organ; in fact, a general cold bath refreshes the entire organism. It possesses wonderful, magical, health-producing powers.

#### Tranquilization.

From a purely physical standpoint "godliness with contentment is great gain," and is also a potent factor in the perpetuation of health. Sunshine in the heart of man is as great a foe to bodily depression as natural sunlight is to the life of disease-producing germs.

The individual's mental attitude toward himself has much to do with his state of health. Happiness, joy, love, all the nobler qualities of the mind and all harmonious thinking build up the body and increase the vitality. Every man and every woman who prizes health, and is seeking to maintain it ever on a higher plane, must of necessity become an optimist. Cleanness of mind reacts powerfully upon the entire organism.

Introspection, the common habit of many who have deteriorated in health, the habit of attempting to analyze every feeling, of being ever on the alert for any new symptom, is absolutely disastrous to progress on the road to well-being and happiness.

People who cultivate this morbid habit, view the world through smoked glasses. To many such, a rift in the clouds would be almost a disappointment. The greatest barrier to their making a rapid recovery is oftentimes the ego within, which has been magnified to the size of a mountain.

Pessimism is malaria to mind and body. Worry and anxiety exhaust the nervous system and waste the nervous energy in a geometrical ratio. It is a well-recognized fact that anger poisons the secretions, and that fear chills the surface of the body, and congests the internal organs. The statement that "perfect love casteth out fear" has a physical as well as a moral application.

By paying attention to these four great principles, alimentation, respiration, elimination, and tranquilization, one may travel on the road of health to a good old, happy old, and healthy old age.

## PERIODIC SICK HEADACHES.

BY DAVID PAULSON, M. D.

M IGRAINE, or sick headache, has been conclusively shown by Dr. Haig, of London, to be due to the heaping up of poisons within the system. The periodic attack means simply that nature has gone on a strike. There is a nerve storm like the outburst of a volcano; the appetite is taken away, and the victim is compelled to rest a sufficient length of time to get a fresh start.

The individual suffering from these attacks is usually violating some of nature's laws of health, and should at once change his habits of life in a most radical manner. He must adopt an abstemious dietary, free from such substances as will tend to produce uric acid in the system. This means ceasing to use all forms of flesh foods, discontinuing entirely the drinking of tea and coffee, and banishing spices and condiments forever from their customary place in the center of the table. All starchy foods should be thoroughly dextrinized. It is wise for one who is subject to sick headaches to restrict his grain foods to zwieback, or toasted bread, granose biscuit, toasted wheat flakes, browned rice, crystal wheat, and granola. These cereals should be eaten dry, or practically so, and should be thoroughly masticated. The use of a moderate amount of malt honey would result in no detriment to the system, as it is a natural sweet, but in aggravated cases it is best to avoid the use of nut preparations for a time. The patient should drink freely of pure water, being careful, however, not to drink within at least an hour after meals.

Obstinate constipation, which is often present in these cases, can usually be relieved by cold enemas, using half a pint of water at a temperature of about seventy degrees. Such cold enemas will stimulate peristaltic activity, and thus tend to cure the inactive condition of the bowels.

For a couple of days prior to an anticipated attack, the patient ought to restrict himself to an exclusive fruit dietary, eating as much fruit four times a day as he desires. At the same time he should take some form of baths that produce vigorous perspiration, indulging in moderate exercise only, as the adherence to an exclusive fruit dietary has a tendency to produce weakness.

Very often, an attack of sick headache may be largely avoided by taking, just prior to the anticipated onset, a thorough lavage. I do not advise a lavage for minor digestive disturbances, but in the case of sick headache it may serve practically to cure the real condition, and the annoyance that is occasioned in the stomach by such a procedure is more than overbalanced by the benefit derived from it.

During the attacks hot hip and leg packs will be found very serviceable, as they help to relieve the congestion in the head by distending the blood vessels in the lower part of the body.

The tenderness over the abdomen, which is present in most of these cases, may be materially relieved by wearing at night a heating compress. This compress is made by first pinning around the abdomen a thin towel which has been wrung out of cold water; over this place a piece of some impervious material such as rubber cloth, mackintosh, oilcloth, oiled silk, or, in the absence of anything better, half a dozen layers of newspaper; then over all place a double strip of blanketing, a little wider than the towel, so as to cover it snugly, thus preventing the chilling that might otherwise occur during the night. In the morning the abdomen should be sponged off with cool water, and in order to promote a general reaction some short cold treatment should be taken, such as a sponge bath, a spray, a cold towel rub, or cold mitten friction.

Many victims of sick headache have relaxed abdominal walls. This difficulty should be temporarily relieved by wearing an abdominal supporter, and permanently remedied by such exercises as will tend to strengthen the relaxed abdominal muscles. This can be very satisfactorily done by taking a horizontal position, and raising one limb several feet from the bed; then slowly lowering it again, alternating by raising and lowering the other limb. After practicing

this daily for a little time, both limbs may be raised at the same time. The exercise should be repeated eight or ten times consecutively, care being taken not to strain the abdominal muscles sufficiently to make them sore. The leg movements may be followed by the head and shoulder raising on the same plan, and after a time the muscles of the abdomen will become so strong that it will be possible, for many at least, to raise the limbs and the head and shoulders at the same time. Great care, however, must be exercised in taking these movements, as the abdominal muscles can be easily overstrained and weakened.

By carefully and persistently carrying out the foregoing instructions, there is no ordinary case of periodic sick headache that cannot in time be cured. However, the physician occasionally meets an extraordinary case that seems to baffle all human skill. The nervous system appears to have acquired the habit of going through the nerve storm at regular intervals, just as people sometimes continue to have chills and fever for months after the malarial parasite has left the blood. In such cases morphine is frequently resorted to for relief; but in using morphine at this stage, the danger of becoming a drug fiend is so extremely great that a beacon of warning ought to be lifted against this form of medication to everybody so afflicted.

The sufferer from sick headache should continue in strict adherence to nature's laws even though he does not see the results of his labor, for if he continues to allow poisons to accumulate in his system in the future as he has in the past, the attacks will necessarily grow more frequent, and become more and more severe as his ability to eliminate toxins decreases. He should spend as much time as possible in the open

air. Pure air, pure food, and proper rational treatments will serve to supply the body with pure blood, and to build it up, thus making it possible that in time the system will be able to fight off these attacks successfully. We have frequently seen patients who have suffered from sick headache for twelve

or fifteen years, but who yet became entirely free from them by availing themselves of rational methods of treatment, and adopting a wholesome and sensible dietary. Some of these have been able to carry out these principles sufficiently to make a splendid recovery by their own efforts in their own homes.

#### OLD HATS.

BY ETHEL TERRY REEDER.

THE hat seems to have been first used by the progenitors of the present English-speaking race, as an extra covering for the head, to supplement the cap or hood in bad weather. It first appears shortly after the Norman conquest, slung at the back of its owner after the manner of its Roman prototype. These hats were probably made of felt or some such material, and in some instances were evidently covered with the skins of animals.

It is impossible to determine at just what period the skins of beavers were first used in the manufacture of hats, but it is evident that they were imported from Flanders before the end of the four-teenth century, for Chaucer describes the merchant in the "Canterbury Tales" as wearing —



THE ORIGINAL FASHION.

"On his head a Flaunderish bever hat."

The following from the inventory of the personal belongings of Sir John Fas-



GREAT HATS ALL ON ONE SIDE.

tolfe, in 1459, leaves no doubt that hats were worn in the fifteenth century, though caps and hoods were more common. The entries were "a hatte of bever lyned withe damaske," "ij strawen (straw) hattes," "i prikkyng (riding) hat cover'd with blake felwet" (velvet).

In the "Ship of Fools," which was printed in 1517, the gallants of the time of Henry VII are described as wearing "ample bonnets, with low necks, and guarded like as it were for despite, and thereupon the great hats, that are set all upon one side."

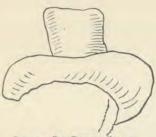


FIG. 1. SIR PHILIP SYDNEY.

During the reign of Henry VIII, hats evidently bec a m e more common. Even during this period. however, the

the portraits

show a much

more common

use of the true

hat. Figures 1,

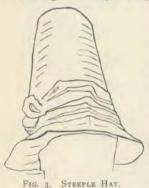
2, 3, and 4 are

illustrative of

Cumberland, il-

head coverings most frequently seen in the paintings and tapestries would better come under the name of bonnets. However, we find such references as these: "hattes powdered with armyns" (ermines); "item, paid for a hatte and plume for the king in Boleyn, XVs.," and others.

During the reign of Queen Elizabeth



this period. The one worn by George Clifford, Earl of

lustrates the practice then in vogue, of wearing a lady's glove in the hat, which is referred to by the writers of the times.

In his description of a tournament in the time of Henry VIII, Hall says: "One wore on his headpiece his lady's sleeve, another the glove of his darling." Lyly in his "Alexander and Compaspe," 1584, refers to the same practice thus: -

"Thy men are turned to women, thy soldiers to lovers; gloves are worn in velvet caps, instead of plumes on graven helmets."

Figures 3 and 4 are good representations of the high-crowned hat referred to by the writers of the period as "the steeple" and the "sugar-loaf" hats.

Stubbs, in describing the hats of his day, says, "Sometimes they use them



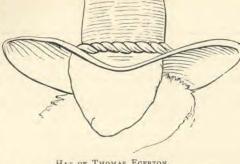
FIG. 2. THE EARL OF CUMBERLAND.

sharp on the crown, perking up like the shear or shaft of a steeple, standing a quarter of a vard above the crown of their heads, some more, some less, to please the fantasies of their wavering minds. Other some be flat, and broad on the crown, like the battlement of a house; another sort have round crowns, sometimes with one kind of a band, sometimes with another; now black, now white, now russet, now red, now green, now yellow, now this, now that; never constant with one colour or fashon two months to an end. And as the fashon be rare and strange, so is the stuffe whereof their hats be made divers also: for some are of silk, some of velvet, some of taffata, some of sarcenet, some of wool, and, which is more curious some of a certain kind of fine hair: these they called beaver hats, of twenty, thirty, and forty shillings a piece, fetched from



FIG. 4. THE SUGAR-LOAF STYLE,

beyond the sea. whence a great sort of other varieties do come. And so common a thing it is, that every serving man, countryman, and other, even all indifferently, do wear these hats; for he is of no account or estimation among men if he have not a velvet or taffata hat, and that must be pinched and cunningly carved of the best fashon."



HAT OF THOMAS EGERTON, LORD HIGH CHANCELLOR OF ENGLAND IN 1603.

The custom of

wearing jewels in the hat seems to have become prevalent about 1623, for in a letter of that date to his son and the Duke of Buckingham, James I says: "I send you for your wearing the 'Three Brethren,' that ye knowe full well, but newlie sette, and the Mirroure of France, the fellowe of the Portugall dyament, quiche I wolde wishe you to weare alone in your natte with a little blakke feather."

Ben Jonson's lines -

"And his hat turned up With a silver clasp on his leer side."

give us a clue to the styles in hats in his day. In another place he writes: —

"Honour's a good broach to wear in a man's hat at all times."

The following stanza from a song by Heywood testifies to the value placed upon beaver hats in the time of Elizabeth:—

"The Spaniard's constant to his block, The French inconstant ever; But of all the felts that may be felt, Give me your English bever."

In 1607 Gervase Markham describes the hat which an equestrian should wear, as follows: "A hat which will sit close and firme upon your heade, with an indifferent narrow verge or brim, so that in the saults or bounds of the horse it may neither through widenesse or unwieldinesse fall from your head, nor with the breadth of the brim fall into your eies and impeach your sight, both which are verie grosse errors."

During the reigns of Charles I and Charles II the hat brims were made so wide that they showed a decided

tendency to hang down, especially after they had been worn for some time. The fashion of ornamenting the hats with feathers laid upon the rim greatly increased this tendency. The difficulty was finally obviated by turning up one portion of the rim either at the front, This was called "cockback, or side. ing" the hat. As this was done to suit the individual taste of the wearer, many varieties of hats were soon seen, bearing the name of the person who first set the style. Thus the hats, with the brims turned up in the same style as that worn by the unfortunate Duke of Monmouth. were known as " Monmouth cocks." In time two sides of the hats were cocked.

finally three. This made the complete cock-hat.

In the middle of the 18th century the cocked hat was considered as a mark of gentility and pro-



WORN BY THOMAS CECIL, FIRST EARL OF EXETER.

fessional rank, distinguishing its wearer from the lower orders who wore theirs uncocked. From the allusions of contemporaneous writers and the testimony of the paintings, it is evident that it was the fashion to carry the hat under the arm rather than to wear it upon the head,

as we conceive that a hat should be worn.

"A pretty black beaver tuck'd under his arm:

If placed on his head, it might keep him too warm." - Monsieur à la Mode, 1752.

A paper called The World, published in 1755, tells of a physician who walked into London in a threadbare coat,



WILLIAM III, 1692.

with a shapeless and colorless hat under his arm, of which he says: "I assure you, I do not carry it there for ornament, nor for fear of damaging my wig, but to point out to those who pass by that I am a physician." In another number of the same paper the military hat is spoken of thus: -

"That hat adorns his head, Graced and distinguished by the smart cockade, Conspicuous badge which only heroes wear.'

"Hats," says a writer of 1760, "are now worn, upon an average, six inches and three-fifths broad in the brim, and cocked between Quaker and Kevenhuller. Some have their hats open before like a church spout, or the tin scales they weigh flour in; some wear them rather sharper

like the nose of a greyhound, and we can distinguish by the taste of the hat the mode of the wearer's mind. There is a military cock and the mercantile cock, and, while the beaux of St. James's wear their hats under their arms, the

beaux of Moorfields-mall wear theirs diagonally over the left or right eye; sailors wear their hats uniformly tucked down to the crown, and look as if they carried a triangular apple-pasty upon their heads.

"Some wear their hats with the corner that should come over their foreheads high into the air: these are the Gawkies. Others do not above half cover their heads, which is, indeed, owing to the shallowness of their crowns; but, between beaver and evebrows, expose a blank forehead, which looks like a sandy road in a surveyor's plan."

So it seems that, although the original designer of the hat had in mind an altogether useful piece of apparel, it was scarcely launched upon its career when its capricious, unstable character became evident. Designed for a protection from rain it became so elaborate that it had to be carried under the arm to protect it from damage, or so heavy with its much trimming that it was an intolerable weight upon the head.

We are glad to see that though the heavy, one-sided, and over-trimmed hat is still very much in evidence, there is a decided and seemingly growing tendency on the part of many right-minded people to wear simple hats of substantial material, that serve as a protection to

their wearers rather than demand their time and attention in protecting the hat from possible damage.



Credit is due the Cyclopedia of Costume, published by Chatto and Windus, London, for the illustrations and the historical portion of this article.

# COLD WATER VERSUS "BITTERS."

BY J. H. KELLOGG, M. D.

ROUSSEAU defined a tonic as an agent having for its objects the giving of tone to the tissues, the restoration of the functions of nutrition and assimilation, and the increasing of vital resistance. A more modern definition of a tonic would be an agent which, when systematically employed, aids in the restoration of normal activities, both constructive and destructive, thereby promoting a renewal of the body and a recuperation of its forces, and an increase of vital resistance.

Tonic measures are such as increase vital activity in a healthful direction. The most powerful tonics are the most powerful excitants, it being understood that by excitants is meant exclusively physiological means, such as thermic influence, light, and electricity. It must be remembered also that an excitant may be employed in such a manner as to exhaust the nerve centers, and thus produce effects the very opposite of those desired.

The tonic effect of cold water is its most constant and regular effect, this tonic influence being exerted whenever water is applied at a temperature below that of the body.

The tonic effects of water are, of all the remarkable therapeutic properties of this versatile agent, the most important and the most extensively used. They are obtained by the repetition of excitant measures, and are due to the reaction which, under ordinary conditions, always follows a short cold application.

Water, by its accessibility, its convenience in use, and its high specific heat, more readily lends itself to the assistance of the physician in producing restorative and permanent tonic effects than any other agent.

The numerous popular bitters are universally toxic in character. Whatever tonic effects they may seem to produce are due to the fact that the system is aroused to resist their influence, and to expel them from the body; and while a certain amount of benefit is perhaps derived from the use of such agents, there is always a possibility of serious damage; and doubtless in all cases a considerable amount of harm is done through the toxic influence of the drug, which falls with especial weight upon those organs which are most concerned in the elimination of poisons,- the liver and the kidneys.

A tonic or a stimulant is a mortgage placed upon the vital capital of the body, which must be paid sooner or later. It is a draft upon the constitution. A stimulant is simply a means by which the nerve centers are made to give up a little more of the energy which they have stored up; and unless the stimulus is of such a character that the storing power as well as the expending power of the nerve centers is increased, there must be a loss from its employment.

A dose of bitters of some sort may provoke the expenditure of nervous energy, but it does not replenish energy; while it does lessen the activity of the kidneys in eliminating tissue poisons, and the efficiency of the liver in the destruction of toxins and leucomains, thus encouraging the development and maintenance of a condition which is, in itself, an indication for the necessity of employing tonic measures; in other words, an ordinary tonic or stimulant aggravates the very condition it is intended to cure.

The establishment in modern times of laboratories for psychological and neuro-

logical research has been the means of throwing much light upon the nature of mental and nervous activity. Nervous energy no longer means, as formerly, an intangible, mysterious something, but as has now been clearly demonstrated, is immediately and definitely connected with material elements found in the interior of the nerve cell. For example, a nerve cell. when in a state of rest, shows a large number of grayish granules, which have been shown to be intimately connected with the storage of energy, so that when the granules are abundant, the cell is like a fully charged battery, ready to discharge under the influence of the right sort of stimulus the maximum of energy which it is capable of exhibiting. On the other hand, when the cell is fatigued, as after prolonged, energetic work, the granules are found to be very few and small, and the cells shrunken and pale.

With these facts in mind, it is easy to understand why such disappointing results have followed the use of a very large number of so-called nerve tonics, since it is evidently impossible that these nostrums should in any way increase the store of energy in the cell; and the most that can be expected of them is the excitement of the cell to activity when it has become exhausted to such a degree that a sense of fatigue supervenes as a warning that the store of nervous energy is reduced to a point where any further demand upon it is dangerous, and that rest is imperatively demanded.

The only way that the energy granules of a cell can be augmented is by the assimilation of food from the blood, and the development of energy-containing particles. Cold water surpasses all other agents in its power to promote the normal energy-storing processes. Cold applications also facilitate to a very remarkable

degree the discharge of nervous energy, when a sufficient store exists, though sometimes they may not be available, because their useful application is hindered by the influence of retained excretions or nerve-benumbing toxins generated within the tissues or absorbed from the alimentary canal. This effect of water is readily apparent in the influence of the cold bath upon muscular energy, and also in the sensation of well-being, buoyancy, and readiness for exertion, which results from the application of cold water.

The tonic effects of cold water are unquestionably to a large degree due to the influence of cold impressions acting through the nerves of the skin upon the sympathetic nerve centers. The great sympathetic nerve controls the blood vessels, the glands, the heart, the functions of secretion and excretion, and in fact, all the vital functions of the body. awakening of the sympathetic to renewed activity or to a balancing of its action, is what is specially needed by the great majority of chronic invalids. The functions of the brain and spinal cord, and through them all forms of nervous activity, are to a remarkable extent influenced by the sympathetic. sensation of well-being which accompanies the reaction following a general cold application, is largely due to the increased activity of the cerebral circulation, brought about through the stimulation of the sympathetic. By its power to influence the sympathetic, hydrotherapy is capable of controlling, restraining, reorganizing, balancing, all the processes of organic life; and through them of modifying the functions of animal life to a marvelous degree.

Cold water is a physiological tonic, and has the advantage over medicinal tonics of all sorts, in that it awakens nervous activity without the imposition of any extra burdens upon any vital organ, and without hampering the activity of any function. The cold bath, employed in such a manner as to produce tonic effects, accomplishes its results by increasing vital resistance to the causes of pathological processes, by making the wheels of life run more smoothly, by lifting the whole vital economy to a higher level. The impression made upon that harp of a million strings, the skin with its vast network of sensory, motor, sympathetic, vasomotor, and thermic nerves, arouses every nerve center, every sympathetic ganglion, every sensory and motor filament in the entire body, to heightened life and activity. Every blood vessel throbs, and every cell quivers, with a new life; the whole body thrills with quickened impulses, the whole being is translated into a new state of existence.

A person who has never experienced the glow of exhilaration, the invigoration and buoyancy of body and mind, which accompany the state of reaction from a short, general cold application, cannot well appreciate the value or significance of the cold bath as a physiological stimulant. It is not too much to say that of all measures known to man it is the most valuable as a means of arousing to activity the flagging energies of the body, and lifting the enervated invalid out of the morasses and quagmires of chronic disease.

# MEDICAL SUPERSTITIONS OF THE SWEDISH PEASANTRY.

BY FRANCES BARTON.

LOYD, in his interesting book entitled, "Peasant Life in Sweden," tells us of many superstitions held by this people, relating to diseases, their causes and cures.

Many occurrences, which are to us the natural results of simple causes, are to this people, supernatural and beyond explanation. Many of them still believe in the *Troll Karl*, or dealer in the black art, and witchcraft is a living reality.

It is believed that the toothache will be cured by rubbing the offending member with a horseshoe nail until the gum bleeds, and then driving the nail into a growing tree. Thus the pain is transferred to the tree, but if any one afterward injures or cuts down the tree, the toothache will be again transferred to him.

Earache is said to be cured by allowing some one to blow through an eagle quill into the ear, or by taking internally the scrapings of a wedding ring.

Sties on the eyelids are supposed to

be caused by the sufferer's having seen a chair or stool upside down, without spitting upon it. To cure the sty some one must bore three holes, with an auger, in front of the sufferer, and spit through each.

The recognized remedy for whoopingcough is to drink water from a chu chdoor key (these keys are said to be of gigantic size), or milk from a horn which has been loosened in combat, but did not fall from the animal's head. Should neither of these potent remedies be at hand, water which drips from a mill wheel revolving in the direction opposite to the course of the sun, will do quite as well.

It is said that if, on the first occurrence of an epileptic fit, the sufferer's clothes are torn immediately, he will be free from further attacks. However, should the first fit take place while he is in church or on the water, the disorder is supposed to be incurable.

When one becomes suddenly hoarse,

he is said to have seen a wolf. The one so affected should go to the mouth of an oven, or a pit in which turnips are kept during the winter, and shout, "Give me my voice again!" The hoarseness is supposed to disappear at once.

Warts are said to disappear when the water which has lodged in the latch of a gate is allowed to drip on them. Another method employed is to tie a string around each wart, and then bury the strings in the earth. When they have decomposed, the warts will disappear. These unseemly growths will also go away if they are rubbed on a tombstone.

To escape ague one must carefully avoid touching any kind of food in the morning before the hands have been washed. The following story, which is said to be received as gospel by the common people, is supposed to have given rise to the superstition:—

"There was once a rich peasant who had labored all day in the forest, and on the approach of evening had set off homeward. His road lay past a mountain where dwelt the 'Troll,' and when immediately opposite it, he heard a voice within pronouncing his own name. Stopping to listen, the following commands, given in a shrill, harsh tone, reached his ears: 'Both of you, my daughters, are to proceed to the house of the man I have just named, where you are to remain for a half year. The wife is now preparing porridge for her husbands supper. On his reaching home, and beginning to eat, he will spill the first spoonful on the table. Thou, Martha must then hop into the spoon, and thus be conveyed into his stomach, where every good thing he swallows will be thine. To thee, Caroline, I give all kinds of eatables touched each morning by the maidservant before wetting her hands; that will be thy fare. Adiew. This evening six months I expect you both back again.' All was now

quiet in the mountain, and the peasant proceeded on his way home.

"As the 'Troll' had predicted, the wife had made ready the porridge for her husband's supper, but before sitting down to the repast, he hastily stitched together a stout bag. Afterward, and when about to begin to eat, he purposely spilt the first spoonful of the porridge on the table, but on taking it up from thence, instead of putting it into his mouth, he deposited it in the bag in question. Then securely tying up the mouth of the latter he hung it up against the wall of the room.

"The peasant then gave strict orders to his maidservant always to wet her hands of a morning before touching any kind of provision, promising her at the same time a rich reward if she implicitly followed these his instructions for the next six months.

"On the following morning, when it was drawing on to ten o'clock, the leather bag mentioned began to shake violently, and exhibit the usual symptoms of a severe ague fit. The like symptoms continued for six months, although the motion of the bag toward the end of that time gradually became weaker and weaker.

"For a while the servant girl, allured by the promised largess, strictly obeyed her master's injunction, but being anxious one day to ascertain the state of some malt then drying in the oven, she took up a couple of handfuls of the grain, without first dipping her fingers into water, as was her custom. Recollecting immediately afterward, however, the omission she had been guilty of, she cast the malt in her hands into the part of the oven beyond the fire.

"The six months having expired, the peasant repaired to the mountain spoken of, and listened attentively. He heard the same voice as before say, 'Welcome home, my children! but how haggard and wan you appear. I scarcely know you. Where hast thou been, Martha?' 'Alas,' replied the second voice in a complaining tone, 'My lot has been a terrible one, for since I left home I have had only a single spoonful of porridge to eat.'

"'And what hast thou been doing, Caroline? thou lookest more miserable and lean than even thy sister, and seemest, moreover, as good as burnt up.' 'That's true,' responded the third voice, 'my fate has been a still harder one, if possible, than Martha's. All that I have tasted in the six months has been two handfuls of dried malt, and that I was obliged to take from the farther end of a heated oven, in doing which I sweated most awfully.'"

Such are only a few of the superstitions of this character which are received as absolute truth by this simple people.

## DIETARY CUSTOMS IN BENGAL.

BY M. W. BACHELER, M. D.

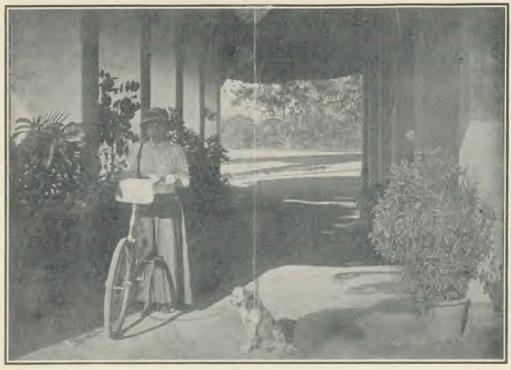
THE familiar saying, "If India were to embrace Christianity to-day, she would be free to-morrow," has an entirely different significance to those acquainted with the country and its vast and various population of nearly three hundred millions, from its significance to the stranger. About a hundred different lan-

guages and as many more dialects are spoken by the people. Race, situation, food, climate, religion, caste, all tend to widen the differences separating the people, so that there is little or no cohesion among them, and a free national life is practically out of the question.

To illustrate one of the many ways in



TRAVELING BY PALANGUIN.



AN AMERICAN PHYSICIAN IN BENGAL.

which the people differ, we will take the food habits of the Bengalis (who are Hindus, though not all Hindus are Bengalis), the Mohammedans, and the Santals, who are all represented in Bengal.

Although the Hindu is in general considered a strict vegetarian, his diet varies with his caste, low-caste Hindus eating meat freely, while the middle and higher castes live almost exclusively on grains and vegetables. Rice is the principal article of food, and is prepared in a dozen or more different ways, boiled rice being the staple. With it may be eaten boiled greens or fried fish or vegetables. Sometimes the very poor eat a raw onion or a red pepper with the boiled rice, or perhaps a potato, roasted in the ashes, is mashed with onions and salt. As a general rule, every Hindu eats fish, except where now and then one is found who has taken a vow to the contrary.

The Mohammedans, descendants of Ishmael, who ruled India before the British, are a meat-eating people. In Bengal they eat rice, but they cook it in ways different from those in favor with the Hindus; they make it richer, and often use meat with it. They do not eat pork in any form. Their national dish is called pillaoo, and is eaten with a stew called korma. Pillaoo is made by partially cooking rice in meat broth with cardamoms, cinnamon sticks, raisins, cloves, spice leaves, and black pepper, finishing the cooking by frying in clarified butter. When served, it is covered with onions, fried crisp, and sections of hard-boiled egg. The korma is not a highly spiced stew, but is made rich with clarified butter, and is strongly flavored with carda-

The Santals are one of the aboriginal races, and differ in religion, customs, diet, physique, and disposition from both Hindus and Mohammedans. They live out of doors more, they eat rice and vegetables, and of meat anything they can snare or catch or shoot. Wild boar, deer, rabbit, and other creatures of the jungles are acceptable additions to their menu. Flying foxes (a large variety of bat) are considered rather a dainty, and it is said they eat snakes, and also rats. A jungle ant that lives mostly, I believe, on sal trees furnishes a pleasant acid. During the rainy season when the white ants swarm as winged creatures, big black ants, crows, and Santal children vie with each other in collecting them. It is said that fried in butter they are very palatable.

Sick-room diet, however, is very much the same among all classes and races.

"Kee khabo?" ("What shall I eat?") is one of the questions invariably asked by the patient. Should the usual answer "sago, barley, sujee (coarse wheat meal), or milk" fail to satisfy, the question may be asked, "Are you in the habit of taking rice water?" If so, it will serve as a pleasant and very palatable change from the more tasteless gruels. If, however, the patient should not be in the habit of taking rice water, it is rarely advisable to allow it, as it is almost sure to bring on undesirable complications.

It is customary to torbid the eating of boiled rice until the patient is well toward recovery, but the Hindu dietary contains such a unique variety in the line of foods for convalescents that he need not be surfeited with any one thing. When acute symptoms subside, and convalescence is established, he may be allowed wheat, or pearl barley, or rice prepared as follows: The grain is boiled in water till quite soft, the water is poured off, and the grain is rubbed through a thin,

coarse cloth. Sometimes this mush is made thinner by the addition of hot water or milk.

Another rice preparation is a favorite. Rice in the husk is softened by steaming or boiling, then pounded, and when the chaff is winnowed out, a gray, flattened grain is left, called *cheera*. This is eaten by the natives for a light lunch, sometimes with sugar, or with sweetened popped rice, sometimes alone. For the convalescent it must be carefully parched.

Hand bread (haht rootee, tunki, or papree) is also popular. It is made from wheat flour, water, and a little salt, which are thoroughly mixed to a dough, rolled out very thin, and baked over the fire in a dry frying pan. If the stomach is a little delicate, the dough should be made by slowly adding the flour to boiling water, and letting it cook a few minutes before rolling out and baking it. When properly made hand bread is thin, flaky, dry, and crisp.

The first time rice is allowed the patient, it is generally eaten with the



MAKING HAND BREAD.

gravy of a stew made from a long slender fish called magoor. Later he may have with his rice a thick, unstrained soup made from a parched legume called beeree dàl. At first he takes rice only once daily, making his other hearty meal of hand bread and parched cheera, resuming gradually his usual habits of diet.

When it is necessary to prescribe broths or soups they must, in the case of the Hindu patient, be made from doves, never from chickens. If he has eggs, they must always be ducks' eggs, never hens' eggs. The only reason he can give for this, that seems to us so unreasonable, is that it is the custom in his caste.

The latitude allowed in animal food varies with the caste. In some castes venison may be eaten even by the women; while in others, eggs, even ducks' eggs, are prohibited for all. Usually, however, a little reasoning will induce parents and friends to allow whatever is absolutely necessary; in this way even beef broths may be administered, disguised with medicine. As the cow is one of the sacred animals to the Hindu, he is strictly forbidden to eat beef in any form, and the concession is made only under pressure.

## IS THE KITCHEN INDISPENSABLE?

BY DAVID PAULSON, M. D.

THERE was a time when the spinning wheel was regarded as an indispensable part of the home furnishing, but it has now outlived its usefulness. The modern self-binder has replaced the scythe and the rake, and lightened the toil of the harvest time. Almost every branch of human industry has either been revolutionized or has had its pulse beat quickened by being brought into contact with inventive genius and labor-saving devices.

The kitchen alone has heroically resisted the aggressive encroachments of modern improvements. In the majority of homes, while the husband reaps the advantages which have been developed by modern science, his wife continues to supervise a kitchen whose methods have not been materially changed since the days when her grandmother divided her time between bending over the spinning wheel and working in front of a hot fireplace.

The mush is cooked in practically the

same way and in similarly constructed kettles, and is, therefore, just as pasty now as it was then. The bread is as doughy in this generation as it was in the last, and the poor stomach, which does not now have the benefit of the strong nerve impulse which the active life of our forefathers tended to promote, has to be coaxed by digestive stimulants. When these fail, its various protests are often silenced by vile nostrums.

Cereal foods should be subjected to sufficient heat to dextrinize them thoroughly, and this can be accomplished much more satisfactorily in properly equipped food factories under scientific supervision, than it ever will be in the average kitchen, while the present more or less desultory way of cooking still prevails. Peas and beans can be relieved of their almost indigestible hull, and then baked, on a large scale, far more economically than they can be prepared in the individual home.

The education of the average cook

has not been sufficiently extensive to enable her to discover the fact that nuts are the most nutritious food that nature produces; much less has she acquired the art of transforming them into wholesome, appetizing, and readily digestible food preparations. The dainty nut preparations that are now made in many factories, as a result of painstaking experimentation and in accordance with definite formulas, afford a splendid demonstration of the superiority of the food factory over the kitchen. The latest invasion which the factory has made into the kitchen domain is by placing upon the market a series of cereal nut-soup stocks. With the mere addition of a little boiling water and some simple stirring, the most untutored cook can produce surprisingly appetizing soups from these stocks.

It is already acknowledged that fruits can be put up more beautifully as well as more successfully in the canning factory than in the kitchen. This does away in one stroke with the annual fruit-canning annoyances that were such a source of affliction to our patient mothers and grandmothers.

The kitchen, like the spinning wheel and the old-fashioned reaper, must sooner or later become merely a relic of a bygone age. There will be those who will deplore the disappearance of the kitchen and home cooking, just as there were some who lamented the displacement of the candle by lamps, lamps by gas, and gas by the electric light; but labor-saving devices and modern inventive genius are invading the kitchen, and its days will soon be numbered.

## PORK POISONING.

BY ELIJAH TAYLOR.

THE following instances of poisoning from eating souse meat, occurred recently in and near Culleoka, Tex. It may be well to state just here that souse meat, a favorite dish with many lovers of pork, is a preparation made by cooking thoroughly and removing all bones from the head, ears, and feet of a freshly killed hog.

Mr. John Norris, of Culleoka, having recently killed some hogs, his good wife prepared a lot of souse meat, some of which she gave to a near neighbor. A few nights later the neighbor, Mrs. Jenkins, entertained her minister, Mr. Teetrick, and his wife for the night, and at the evening meal all partook heartily of the donated souse meat. By twelve o'clock every member of the household was desperately ill, the physician who

had been hastily called in, giving as the cause — a germ in the souse meat.

Another case occurred soon after. Prof. John Aiken ate the meat for breakfast at his father's home, and before reaching his school at Clear Lake, only a few miles distant, was taken with a death-like sickness, and was, in consequence, compelled to give up his classes for several days.

No ill effects seemed to follow when the souse meat was eaten as soon as it was prepared; but after standing in a dish for twenty-four hours, the results of eating it were almost fatal to the unlucky partaker.

In the year 1878, my mother was living about seven miles west of Corsicana, Tex. She was extremely fond of souse, and also of what is known as scrapple.

The latter is simply souse with the addition of the liver and lights of the hog. After eating of this dish, she became very ill, and in spite of the energetic efforts of physician and friends we could not save her. The doctor was unable to diagnose the case, and we finally decided that it must have been poisoning from the brass kettle in which the souse was cooked, though we had used that kettle for years for cooking fruit without any similar accident. Now we have good reason to believe that my mother's death was caused by the natural poison in the hog's head. Some claim that this poison lies in the ear wax.

A reformation in souse and pork eating is taking place in Culleoka. May the good people, not only of this place, but everywhere, comprehend the dangers of eating dead hogs in any form. Turn the hog loose, my pork-eating friends. Let him go where he is needed as a scavenger, to eat filth and garbage, but beware of eating him yourselves, for there are, and always have been, in him many evil spirits.

Leave alone his head and his toes, his ears and his nose, his spare ribs and his backbone, in fact his whole anatomy, if you would be on the safe and healthful side of this question.

# NEW IDEAS FOR SPRING DISHES.

BY LULU TEACHOUT BURDEN.

C ANNED fruits, if they are to be had, usually form no small part of the menus for spring. Very few fresh fruits are in the markets, but a little planning will give variety without them.

Appetizing toasts and sauces for grains make a pleasing addition to the breakfast bill of fare, while numerous fruit desserts can be prepared for dinner.

Fruit Sauces.— A fruit sauce may be made from any kind of fruit, by draining off the juice, and allowing one tablespoonful of cornstarch to each cupful of juice. Bring the juice to a boil, then gradually stir in the cornstarch which has been dissolved in a little of the cold juice or

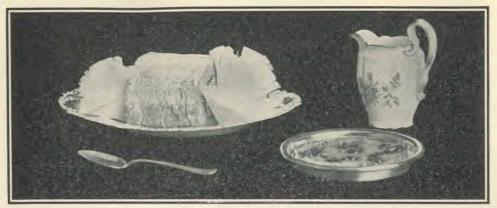
water. Cook for a few minutes, and serve hot or cold. A few whole pieces of the fruit may be added just before serving. This is suitable for toasts, or may be served over grains instead of sugar and cream. It is seldom necessary to add sugar to a sauce made from canned fruit, as it is generally sweet enough.

Sauces made from berries are a little more attractive if the fruit that is added is left whole, but with peaches, prunes, and the larger-sized fruits they taste better if the fruit is put through the colander, making more of a marmalade.

Peach Croquettes.— Cook one cupful of rice in salted water until tender; steaming is preferred. As soon as the grains are tender, add quickly the well-beaten yolks of two eggs, two heaping tablespoonfuls of sugar, and one-half teaspoonful of vanila. When cold, mold into croquettes, roll in bread crumbs, dip in egg, and roll again in crumbs before baking. Serve when well browned with—



CHERRY GARNISH.



A TEMPTING ARRAY.

Peach Sauce.— Mix together a teaspoonful of cornstarch and three heaping tablespoonfuls of sugar. Add a cupful of peach juice, and cook for two minutes, stirring all the time. Next add the juice of half a lemon, and enough cherry or strawberry juice to give the sauce a pink color.

Baked Peach Pudding.— Put a layer of peaches, from which a part of the juice has been drained, into the bottom of an oiled pudding dish. Add a layer of stale sponge-cake crumbs, then more peaches, and so on until the dish is full. Sprinkle the top with crumbs and a little sugar, and bake three quarters of an hour. Serve hot with a sauce made as follows:—

Lemon Sauce.— Boil together for ten minutes, one-half cupful of malt honey, one-half cupful of water, the thin rind of one lemon, and the strained juice of the same; strain this syrup, and stir into it the beaten yolk of one egg; pour into a double boiler and cook, stirring constantly until thick and smooth.

Cherry Garnish.— Cut into rings slices of bread half an inch thick. Soak these in egg yolks beaten and diluted with a nut cream or milk mixed with a little sugar and a grating of orange peel. Egg and crumb with stale cake crumbs; then bake in a hot oven until brown. Sprinkle

with chopped almonds, and arrange around a crown of cherries. Thicken the cherry juice for a sauce.

Baked Fruit Pudding .- One cupful of nut milk, three tablespoonfuls of flour, one-half cupful of sugar, one teaspoonful of grated lemon peel, and three eggs. Heat the milk to the boiling point, add the flour, sugar, and lemon peel, and boil until it falls away from the sides, stirring all the time; add, one at a time, the volks of the eggs, previously beaten, and lastly the stiffly beaten whites of the eggs. Grease a two-quart baking dish, pour into it a quart of stoned cherries from which the juice has been drained. Cover with the above mixture, allowing it to line the outer portion of the dish. The fruit may be stirred into the mixture if desired. Bake in a moderate oven about three quarters of an hour. Serve with a nut cream made by dissolving nut butter with sufficient water to make a thick cream which may be sweetened to taste.

Salad, Salmon Color.— Make for a lunch some day when there is steamed rice left from breakfast. Flake one cupful of nut cheese into rather large pieces, and add one cupful of rice. Cut a stalk of celery very fine, and stir in. Use any sour salad dressing, and mix carefully so that the ingredients will not become mushy. Garnish with parsley, and

use radishes or cold sliced beets previously cooked and saturated with lemon juice. The recipe for nut cheese may be found in the October number of Good HEALTH, 1901.

Frosted Oranges.— Make a lemon filling such as would be used for a lemon pie, and when cooked and partially cool, add the orange pulp cut into neat sections, with any other desired fruit and nuts. Cool, and when jellied, fill orange baskets; or the oranges may be cut into halves crosswise and the pulp removed very carefully so as to keep the skin whole.

Pile upon each orange case that has been filled with the fruit jelly, a meringue made from the whites of eggs beaten to a stiff froth, adding a tablespoonful of sugar to each egg white. Set the cases in the oven just long enough to brown the meringue. These make a good sweet for luncheon, or for a luncheon in courses they make a delicious first course. Serve garnished with smilax to form a sort of bed for the cases.

## EMINENT OPINIONS AGAINST TEA AND COFFEE.

Dr. Beaumont, a surgeon in the United States army, whose experiments have attracted the attention of the whole medical world, says:—

"Even coffee and tea, the common beverages of all classes of people, have a tendency to debilitate the digestive organs. Should any one who is in the habit of drinking either of these articles in a weak decoction, take two or three cups made very strong, let him be aware of their injurious tendency. Yet this is only an addition to the strength of the narcotics he is in the habit of constantly using,"

Dr. Alcott declares that those who drink coffee and tea have an especial tendency to paralysis and nervous headache. The slave to coffee and tea must not find comfort in the thought that these beverages banish headache. They may give relief for a while, but the evil will only grow worse, and very often the seeds of disease are sown by their use.

"We must certainly not imagine that black tea makes us more subject to illness than green or weak tea in the same degree of strength. But we may say that tea of both kinds and in any degree of strength, subjects us, more or less, to illness, because in every form, in every degree of strength, tea is more or less poisonous."

According to Dr. W. H. Riley, "tea and coffee are causes of dyspepsia. The evils arising from their use are due to taking a large amount of fluid into the stomach at meals, and to the effect of tea and coffee upon the functions of the stomach. The tannin which is present in tea is known to be very active in precipitating pepsin, one of the essential agents of the gastric juice; and the poisonous alkaloids, their and caffein, which are present, have also a very deleterious effect."

Dr. J. H. Kellogg says: -

"We know that tea, coffee, and kindred drugs are not foods, because a person cannot live upon them. Any one who undertakes to work upon the strength of tea and coffee, and eats no other food, diminishes in weight about as rapidly as if he are nothing at all. There is no food power and no real energizing power in either tea or coffee.

"There are many cases on record of persons who have rid themselves of sick headache and dyspepsia simply by abandoning the use of tea and coffee." The following analysis from the "Library of Universal Knowledge" gives the organic constituents of tea and coffee;—

> 100 parts of 100 parts of tea contain coffee contain

Water	3	12
Thein or caffein	3	17.5
Casein	15	13
Gum	18	9
Sugar	3	6.5
Starch		a trace
Tannin		4
Aromatic oil	.75	,002
Fat		12
Fiber	20	35
Minor substances	5	6.7

The eminent Dr. Bock, of Leipsic, asserts:—

"The nervousness and peevishness of our times are chiefly attributable to tea and coffee; the digestive organs of confirmed coffee drinkers are in a state of chronic derangement, which reacts upon the brain, producing fretful and lachrymose moods. Fine ladies addicted to the use of strong coffee have characteristic tempers, which I might describe as a mania for acting the persecuted saint.... The snappish, petulant humor of the Chinese may certainly be ascribed to their immoderate fondness for tea."

Dr. Morton says, "Irritability of temper, like dyspepsia, belongs in the category of symptoms produced by long-continued tea drinking. There are tea sots in every great charitable institution, particularly those for the maintenance of the aged. As a rule their symptoms are mental irritability, muscular tremors, and sleeplessness."

Prof. Brillat Savarin, of Paris, gives this statement concerning coffee, in his work, "Physiology of the Senses of Taste," published a few years ago, and translated into German:—

"Coffee is a much stronger drink than

people usually believe. A strong man can live long, and drink two bottles of wine a day. The same man could not stand the same quantity of coffee for a great while; he would become imbecile or die of consumption."

Professor Virchow expresses himself about coffee as follows:—

"We have at last arrived at the truth that caffein (the quintessence of coffee) is nothing more or less than a strong stimulant, and when taken in large quantities, a poison like brandy."

William M. Leszynsky, M. D., says in the Medical Record:—

"The habitual daily indulgence in coffee, even in moderate quantity, by those who are oversensitive to its action, invariably leads to persistent functional disorders of the nervous system, as well as to the disturbance of digestion, which rapidly subsides when its use is discontinued."

"Nervous, muscular, and circulatory disturbances," says the British Medical Journal, "are very frequently the result of coffee drinking. The nerve symptoms are characterized by a feeling of general weakness, depression of spirits, and aversion for labor even in industrial subjects, with headache and insomnia. A strong dose of coffee causes the disappearance of these symptoms. The muscular symptoms consist of distinct muscular weakness, and trembling of the hands, even in rest. The circulatory symptoms are marked by small, rapid, irregular pulse, and feeble impulse of the heart. Palpitations and heaviness in the precordial region are frequent. hands and feet feel very cold, and the complexion becomes sallow. Dyspeptic symptoms, chiefly of the nervous type, are very common. Acne rosacea is seen in a large number of cases."

### THE DIET OF EUROPEAN NATIONS.

THE following is a summary of the dietetic habits of the rural population, the healthiest portion of the several European countries:—

Belgium.— Coffee, black bread, potatoes, vegetables, chicory, and sometimes salted meats.

England.— Beef, pork, potatoes, vegetables, tea, cheese, beer, cider,

Ireland.— Oatmeal, bread, potatoes, beans, milk, butter, vegetables.

Scotland.— Oatmeal, bread, potatoes, milk, butter, coffee, tea, very rarely flesh.

Rhenish Prussia.— Milk, soup, dried fish, grapes, potatoes, flesh only for the feast days.

Saxony.— Bread, butter, cheese, soup, vegetables, coffee, flesh only on the feast days.

Bavaria.— Porridge, butter, milk, cabbage, potatoes.

Italy.— Macaroni, bread, fruits, beans, peas, and lentils, wheat, rice, grapes, wine. A very little flesh is eaten on feast days, but only in certain regions by the very rich.

Spain.—Bread, vegetables, fish, fruits, flesh only occasionally.

Russia.— Rye bread, cabbage, mushroom soup, wheat cooked with milk and oil.

Sweden.— Potatoes, rye, oatmeal, barley, milk, salt herring, beer, no flesh food.

Switzerland. —Cheese, milk, coffee, vegetables, soup, wine, very rarely flesh.

France.— In the neighborhood of Bourgoyne meat is eaten but once a year. The peasants of Morvan eat meat twice a year; the peasants of Sardinia once a year; the peasants of Auvergne very seldom; the Bretons never, except rich farmers, who eat flesh on feast days.

We see from this table that European peasants, the hard workers, subsist almost wholly upon fruits, grains, and vegetable food, a regimen which is highly economical, and by which they are sustained in good health. The peasants live to be much older than the aristocrats and crowned heads who feast upon meats and the luxuries of courts.— Health.

### Too Common a Picture.

It has been our lot to see after death the liver of a young girl, which had been so torcibly compressed that it exhibited depressions which the ribs had made, in each one of which a finger could be laid. Permanent injury was in this case done. All the ailments entailed by an inactive liver followed one another in quick succession, disease was induced which proved incurable, and the patient may have been truly described as a victim to her own vanity, she having literally squeezed the breath out of her body.

Violent compression of this kind puts an immense strain upon the

heart, the various internal organs are made to press upon the large blood vessels which run directly from the heart, and this organ, which is really only a muscular pump created for the purpose of driving the blood into the farthest extremities of the system, is not only pressed upon itself, thereby being impeded in its action, but is unable, owing to the pressure upon the blood vessels, to force the blood through without making a supreme effort. This effort is, and must be made, with the result that the cavities of the heart are dilated, the heart itself is hypertrophied, weakened, and diseased, fatty degeneration not infrequently sets in, and the life which might have

been a happy one becomes that of a permanent invalid, if it is not entirely lost.

The lungs are also unable to perform their functions, and instead of the poor girl's being able to breathe in comfort she pants distressingly, unless perfectly still; the slightest movement revealing her state, and with this enforced inactivity all the troubles of constipation ensue. Need we paint the picture more darkly? We could if we would, but those who will not be deterred from this foolish practice by general statements of the harm they are doing themselves, would not be convinced though every affection which can be traced to this pernicious habit were laid bare before them, and it were proved to demonstration how dangerous and hideous are the results to which they are rendering themselves liable. What they desire, what they most care for, is a momentary triumph, if triumph it be, and they care not at what cost they obtain it .- Health.

### Queen Alexandra's Household.

Town and Country is authority for the following interesting details concerning the royal household and housekeeping of England:—

"One of the most important duties of Alexandra, the new queen of England, will be the government of her royal household, numbering a thousand people. These employees cost in the aggregate about \$660,000 a year in salaries, while an average of \$860,000 a year is paid to 'the butcher, the baker, the candlestick maker,' and the other tradespeople who feed the members of the household. No servant has ever been known to be discharged from the palaces; and when a marriage takes place, the couple is usually provided with a small post, carrying with it a residence. Most of the royal lodges are occupied by couples who have served royalty for many years.

"The only additions to the royal household since the time of Henry VIII are two steam-apparatus men. A servant, officially known as the waxfitter, receives a salary of \$300 a year for arranging all the candles, while two others - a first and a second lamplighter - get \$500 a year each for lighting them, as well as all the lamps in the place. It costs \$1,460 to have the table laid by five functionaries, whose official designation is table deckers. The only work they do is to lay the tablecloth, and see that the plates, dishes, and cutlery are fairly set forth. The salary of the chief butler, who looks after the wine, is \$2,500 a year.

"Sixty young ladies serve in the capacity of housemaids at Windsor. The kitchen is ruled over by a chef whose salary is \$3,500 a year. Under him are four master cooks, who receive \$1,000 a year each for their services. Then there are two assistant cooks, two roasting cooks, sixteen apprentices, half-a-dozen kitchen maids, two yeomen of the kitchen, and the clerk of the kitchen, who guards the expenditures, keeps the accounts, and does the carving. He receives \$1,500 a year. The confectioners get \$1,500 and \$1,200 each.

"A functionary known as the official rat catcher of \*he house of royalty receives \$375 a year, and is the only servant whose salary is provided for outside the civil list. Every session the House of Commons, in committee of supply, considers this vote, and gravely agrees to it. The royal washing costs \$10,000 yearly, and is done in a picturesque stone building near Richmond Park, called the Royal Laundry. The linen is carried to and from the laundry in cedar boxes bearing brass plates inscribed with the different names; for instance, 'The

King, I,' 'The Queen, 2,' 'Princess Victoria.' The boxes carrying the household linen are marked with the initials of the palace, 'W. C.' or 'B. P.' Primrose soap, slightly scented, and quite free from alkalies, is used, and is extremely costly. Queen Alexandra's body linen is exquisitely fine and severely plain."

### Ten Hygienic Truths.

The late Dr. Frank H. Hamilton, of Bellevue Hospital, is said to have framed the following curious decalogue of health precepts:—

"I. The best thing for the inside of a man is the outside of a horse.

"2. Blessed is he who invented sleep, but thrice blessed the man who will invent a cure for thinking.

"3. Light gives a bronzed or tan color to the skin; but, where it uproots the lily, it plants the rose.

"4. The lives of most men are in their own hands; and, as a rule, the just verdict after death would be — felo-de-se.

"5. Health must be earned; it can seldom be bought.

"6. A change of air is less valuable than a change of scene. The air is changed every time the wind is changed.

"7. Mold and decaying vegetables in a cellar weave shrouds for the upper chambers.

"8. Dirt, debauchery, disease, and death are successive links in the same chain.

"9. Calisthenics may be very genteel, and romping very ungenteel; but one is the shadow, the other the substance, of healthful exercise.

"10. Girls need health as much as — nay, more — than boys. They can obtain it only as boys do, by running, tumbling, by all sorts of innocent vagrancy. At least once a day girls should have

their halters taken off, the bars let down, and be turned loose like young colts."

— Boston Cooking-School Magazine.

### Results of a Hygienic Compact.

The oldest practicing physician in the United States, and probably the oldest in the world, according to the Chicago Tribune, is Dr. J. P. Wood, of Coffeyville, Kan., who has just celebrated his one hundredth birthday. Dr. Wood began practicing when he was twenty-two years old—just seventy-eight years ago—and he has been at it ever since. "But," he always adds in telling about it "I have done mighty little practicing on myself."

The venerable doctor, in spite of his age, is out and about every day, rain or shine, visiting his little circle of patients. Until three years ago, he accepted calls at any hour, day or night, but now, because his wife and friends object to it, he does not go out nights. Physically and mentally, he is as well preserved as the average man of seventy. He neither carries a cane nor wears spectacles. "And it isn't my second sight, either," he says, proudly. "I never wore spectacles, and never expect to"

His hearing, likewise, is as acute as it ever was, and his sleep and digestion are as good as anybody's.

Dr. Wood attributes his long life and maintained vigor to the fact that when a young man in Transylvania Medical College, he entered into a compact with seven of his classmates to live always in a plain, temperate manner, and never to use liquor or tobacco, or indulge in excesses of any kind. All but one of the parties to this compact lived to be over seventy-five, five lived to be over eighty, and two — Dr. Wood and ex-Governor Bradbury, of Maine — passed their ninetieth year.

### THE TREATMENT OF CATARRH.

DR. EUGENE C. UNDERWOOD, in the St. Louis Medical and Surgical Journal, considers the subject of treating catarrh chiefly by the use of hydrozone. He says in part:—

"The treatment of catarrh is very simple, and the results which follow correct and systematic treatment are very satisfactory. In practice, two forms of chronic nasal catarrh are met.

"The more common form is characterized by a thick mucous discharge from the nose, great liability to colds, obstruction of one or both nostrils, which forces the patient to breathe through his mouth; nasal intonation of the voice. There is more or less headache, and the sense of smell is lost or impaired. There is dryness of the throat, deafness, and other symptoms showing the extension of the disease to neighboring organs.

"The other form is characterized by a sense of dryness in the nose and throat, a thick, purulent discharge, the expulsion of discolored crusts, and an offensive putrid odor. The sense of smell is impaired, and the patient is weak and anemic. "The mucous membrane is dry and glazed, but in advanced cases ulceration and necrosis are present.

"The treatment consists of applications directly to the diseased area, and the administration of such internal remedies as will correct any coexisting disease or morbid state. In some cases the resources of surgery must be invoked.

"Let me examine more in detail the treatment of the types of nasal catarrh.

"In a simple chronic trouble of the first sort the results of treatment will be most flattering. In a case attended with no constitutional disease, nothing is necessary beyond having the patient spray the nasal mucous surface with a solution composed of equal parts of water and hydrozone, every three hours.

"The hydrozone is not only a disinfectant and germicide, but its curative action on the inflamed mucous membranes is speedy, and is not equaled by any other drug I have ever used.

"In the other variety, we must use the same local application. The hydrozone at once overcomes the offensive odor, and takes off the purulent crusts."

### OPEN THE DOOR.

Open the door, let in the sun;
He hath a smile for every one;
He hath made of the raindrops gold and gems,
He may change our tears to diadems—
Open the door!

Open the door of the soul; let in Strong, pure thoughts which will banish sin; They will grow and bloom with a grace divine, And their fruit shall be sweeter than that of the vine—

Open the door!

Open the door of the heart; let in Sympathy sweet for stranger and kin; It will make the halls of the heart so fair That angels may enter unaware— Open the door!

-British Weekly.

### EDITORIAL.

### VEGETARIANISM AND EVOLUTION.

UNDER this head, our excellent contem- of diet, and that the highest apes, as well porary, The Literary Digest, publishes an abstract of an article by Prof. Ferdinand Hueppe, in which attempts are made to show that man began life as a clam eater, that then as soon as he had gone sufficiently far, he took to hunting and killing larger animals. The Professor points to the Esquimau as an example of a pure flesh eater, such as he supposes the whole race to have been in some past age. He accounts for the vegetarian as follows: "Owing to the struggle for existence, man has evolved into a flesh eater, a mixed eater, and lastly into a vegetarian." We are glad to note that the Professor, though combating vegetarianism, recognizes the vegetarian as the latest product of the evolutionary process, which he claims has lifted man from raw clams, bugs, and shrimps to bread, nuts, and fruits.

The objection urged by Professor Hueppe, that "man has neither the teeth nor the gut of a herbivorous animal," is entirely irrelevant, as no intelligent person has ever urged that man is herbivorous. He is neither herbivorous nor carnivorous; he is frugivorous, in this regard resembing those animals to which he is the nearest related, namely, the chimpanzee, the gorilla, and the orang-outang.

Professor Hueppe errs in saying that "the anthropoid stock from which man evolved, fed on nuts, fruits, eggs, small birds, and insects," It is true that some members of the ape family subsist upon this dietary, but the highest representatives of the family, the gorilla, chimpanzee, and orang-outang, are strict vegetarians. If the evolutionary theory is correct, then it would seem that the members of the ape family are also undergoing evolution in the matter

as the highest men,- that is, those who have reached the highest point in the evolution process,- are vegetarians, abstainers from flesh. A vegetarian is not necessarily a grass eater; the gorilla does not eat either grass or leaves, but thrives well on fruits and nuts, or roasting ears when they are within reach; and on this simple dietary he is able to hold his own in the forest against animals very much larger than himself, being more than a match for them, both in strength and in smartness.

Another serious error made by Professor Hueppe is the statement, "No vegetarian animal, not even the horse, ox, camel, or elephant, can carry the weight of its own body." The learned Professor has certainly never had an opportunity to visit Mexico or Central America. In the countries named, also some other countries, one may often see a vegetarian donkey carrying a big fat native, with his equally fat wife, and several lesser members of the family, all on his back at one time. The aggregate weight carried by these patient little beasts must often amount to considerably more than the animal's own avoirdupois. And what would Professor Hueppe say to see one of the vegetarian Smyrna porters, who breakfast and dine on barley cakes, figs, and a handful of olives, marching off with a half ton on his shoulders? In some parts of South America there are vegetarian Indians, each of whom is able to take on his shoulders a man as big as himself, and his baggage in addition, and march off a distance of twenty miles over mountain roads without once being relieved of his burden. Hundreds of similar illustrations might be quoted.

Professor Hueppe will perhaps say, in

reply, that these feats are performed by men who are not naturally vegetarians, but at least semi-carnivorous. But we must be allowed to reply that these men are vegetarian men, and that if it is true that men are naturally, wholly, or partially carnivorous, the fact that they are able to perform such feats of strength on a non-flesh dietary is so much more in favor of the diet; for an animal ought not certainly to be able to do so well on the food to which he is not naturally adapted, as on his natural dietary. The Professor is wholly in error, as are all others who argue from such premises.

The Professor argues further that a vegetarian dietary is not capable of furnishing a well-balanced bill of fare. He complains that a vegetable diet contains so great an excess of carbohydrates (starch and sugar) that "the vegetari n is like an overheated steam engine,- he is in danger of explosion, owing to the use of a wrong kind of fuel." This might be true if the vegetarian lived wholly on potatoes or rice, or if an excess of sugar or carbohydrates in any other form were habitually consumed. But such an unbalanced bill of fare is not at all necessary. Peas, beans, lentils, and especially nuts, furnish not only an ample proportion, but an excess, of the albuminous elements, or proteids, and so may be used in connection with starchy fats as a means of balancing the bill of fare. The question of symmetrical eating is often overlooked by vegetarians as well as by others, and it is quite possible that harm may come from an excess of starch and sugar as well as from an excess of albumen in the form of meat. It cannot be disputed, however, that an excess of fat is much more desirable than an excess of uric acid, although of course it is possible that both conditions may be present at the same

The argument that "the digestive system of the vegetarian is forced to deal with an excessive bulk of food, and energy is wasted which might be used for the higher purpose of mental activity," shows an exceedingly superficial study of the question of diet. The Professor certainly ought to know that the best vegetable foods are not only much more concentrated than any animal food, but also much more easily digested. The nutritive value of rice, for example, is eighty-eight per cent, whereas that of beefsteak is only twenty-eight per cent—less than one third as much. On the other hand, rice digests within an hour, whereas beefsteak requires for its digestion three hours or more; while pork, the nutritive value of which is one half that of rice, requires five and a half hours for digestion.

Finally, according to the British Medical Journal, "Professor Hueppe tells us that 'the vegetarians of our time belong to the class of neurotic men, who, falling out amid the strain of town life, ever seek for a "heal-all" in one or another crank. Their doctrines, pushed with fanatical zeal, make no impression on the healthy, and overthrow only the balance of those who, like themselves, are the victims of an unnatural mode of existence." somewhat drastic proposition, the Professor is rather hard on vegetarians, to call them "neurotics" and "cranks," but it is, of course, possible that his acquaintance with vegetarians has been so limited that his observation justifies his statement. The writer feels sure that the worthy Professor would be very willing to change his mind on this point if he could have the privilege of meeting the members of the English Cycle Club, which has greatly distanced every other cycling club in England in the average endurance of its members. It must also be true that the Professor has been so deeply absorbed in his anthropological researches that he has omitted to note the fact that in the great walking match between Vienna and Berlin, the winners of the race were two vegetarians who came out twenty-two hours ahead of any one of the numerous flesh eaters who entered the

Finally, we must express the conviction that the Professor is looking at this whole question wrong end foremost. Man did not begin as a clam eater, but as a fruit eater. The oldest and most authentic information we have concerning the diet of primitive man is found in the book of Genesis. In the 29th verse of the first chapter of this generally accredited account of the beginning of the human race, we find the following clear and simple statement respecting the diet of the first man: "And God said, Behold, I have given you every herb bearing seed, which is upon the face of all the earth, and every tree in which is the fruit of a tree yielding seed; to you it shall be for meat."

Another important fact which the Professor seems to have overlooked, is, that from the earliest moment to the present time, the products of the vegetable kingdom have been the chief sustenance of man. At different periods, branches of the human family have, at various lengths of time, fallen into degraded conditions, and become flesh eaters, in some instances even descending so low as to become eaters of their own kind - cannibals, as in the case of the Anglo-Saxons. That every race that has ascended from this degraded condition to civilization has steadily advanced toward the vegetarian dietary, to a dietary largely or wholly derived from the vegetable kingdom, is due, not to the development of a "neurotic" temperament, or "crankiness," but should, instead, be attributed to progress made toward normal conditions of life.

The writer prefers to believe that man did not begin life on this planet either as a monkey or as a monad, but as the Bible represents him, a most splendid creature, the image of God, the king of the world. It is a mistake to suppose that the few fossilized remains of degenerate and degraded and extinct tribes which have been found in caves and other places, should be regarded as worthy representatives of the early members of the human family. A far more trustworthy source of information is to be found in the teachings of Holy Writ, which are altogether confirmed by the

traditions of almost every known people and tribe, from the early Greeks and Romans down to the present day.

The many thousands of intelligent men and women who have realized in their own persons the beneficial effects of a natural. nonflesh dietary, are not likely to be induced to return to flesh pots by such arguments as those brought forward by Professor Hueppe, even though they may have the indorsement of so able an authority as the British Medical Journal. It is not to be disputed that there may be both "neurotics" and "cranks" in the ranks of vegetarians, or those who have discarded meat eating, but it must be admitted by Professor Hueppe and other champions of flesh dietarv, that these unfortunate individuals became "neurotics" and "cranks" before they became vegetarians, and that they had been led to discard a flesh dietary in their efforts to escape the consequences of various conditions of life. It is surprising that it should not have occurred to the distinguished Professor that it may be possible that the adoption of a nonflesh dietary by these unhappy individuals may be the result of an instinctive leading toward a natural remedy for their disorders,- an effort to "harmonize with their environment," to use an evolutionary phrase. As long as no healthy person ever adopts the practice of these "neurotic fanatics," there seems to be no danger that they are likely to do any particular harm, as the law of "the survival of the fittest" aims only toward the preservation of the healthiest. So vegetarianism, not being dangerous to the well, ought, by those who believe as Professor Hueppe believes, to be encouraged as a ready and efficient method of ridding the race of "neurotics," "cranks," and "fanatics," and thus securing the survival of the fittest,

<sup>&</sup>quot;Let appetite wear reason's golden chain and find in due restraint its luxury."

<sup>&</sup>quot;Simple diet is best, fcr many dishes bring many diseases." — Pliny.

### THE OLD WORLD'S OLD PEOPLE.

A FEW years ago a German statistician interested himself in studying the census returns of Europe, and collecting facts concerning its centenarians.

These facts are especially interesting as they clearly show that high civilization does not favor the greatest length of life. The German Empire, with 55,000,000 population, has but 78 subjects who are more than one hundred years old. France, with fewer than 40,000,000, has 213 persons who have passed their hundredth birthday. England has 146; Ireland, 578; Scotland, 46; Denmark, 2; Belgium, 5; Sweden, 10; and Norway, with 2,000,000 inhabitants, 23. Switzerland does not boast a single centenarian, but Spain, with about 18,000,000 population, has 401.

The most amazing figures found came from that troublesome and turbulent region known as the Balkan Peninsula. Servia has 575 persons who are more than one hundred years old; Roumania, 1,084; and Bulgaria, 3,883. In other words, Bulgaria has a centenarian to every thousand inhabitants, and thus holds the international record for old inhabitants. In 1892 alone there cied in Bulgaria 350 persons of more than one hundred years of age. In the

Balkan Peninsula, moreover, a person is not regarded as on the verge of the grave the moment he becomes a centenarian. In Servia there were, in 1890, some 290 persons between 106 and 115 years, 123 between 115 and 125, and 18 between 126 and 135. Three were between 135 and 140.

Who is the oldest person in the world? The German statistician does not credit the recent story about a Russian one hundred and sixty years old. Russia has no census, he says, and except in cases of special official investigation the figures of ages in Russia must be mistrusted. oldest man in the world is, then, in his opinion, Bruno Cotrim, a negro born in Africa, and now a resident in Rio Janeiro. Cotrim is one hundred and fifty years old. Next to him comes probably a retired Moscow cabman, named Kustrim, who is one hundred and forty. The statistician says the oldest woman in the world is one hundred and thirty years old, but neglects to give her name or address, possibly out of courtesy; or perhaps in view of the extraordinary figures which came to his hand from the Balkans, he thought a subject only one hundred and thirty years old was hardly worthy of particular mention.

### The Decline of Wheat.

Somebody has studied the question, "How much wheat is required to make a given quantity of pig?" and claims to have established that just one hundred and ninety pounds of wheat will make exactly one hundred pounds of pork. According to this calculation, it requires a fraction less than two pounds of wheat to make one pound of pig. It must be remembered, however, that one pound of original wheat, eaten before it has been swallowed by the pig, and rolled round in the mud for six months or so, is more than equal, in nutritive value, to two pounds of pork.

Wheat, also, is more digestible than pork.

It is evident, then, from a nutritive point of view, that wheat has an advantage over pork in the proportion of four to one. This principle applies to corn and all other grains, as well as to wheat. Grain is not improved by being passed through the hog, but is rather deteriorated. The hog, in running about, contaminates the cereals with his own waste products, so that when corn is eaten in the form of pig, it is not elevated or refined by being passed through the body of a scavenger animal. It has been degraded and deteriorated by the addition to its pure nutritive elements, of the waste products of the pig, to say nothing of the parasitic diseases, trichina, and tapeworm, which are often present.

### ANSWERS TO CORRESPONDENTS.

Essence of Pepsin — Catarrh of Throat and Larynx — Undigested Food. — E. A. H., Illinois: "I. Is the continued use of the essence of pepsin harmful? 2. If so, why? 3. Is it beneficial in hypopepsia? 4. What is the best treatment for catarrh of the throat and larynx? 5. From four to six hours after eating, particles of food are thrown up from the stomach entirely unchanged in color and taste. What does it indicate?"

Ans. - 1. Yes.

- 2. For the reason that it diminishes the power of the stomach to make pepsin.
- Rarely. In hypopepsia, the trouble is not that the stomach does not make sufficient pepsin, but that it does not make sufficient hydrochloric acid.
- Steam inhalations, the use of the pocket vaporizer, correct diet, and out-of-door life, daily cold bathing, and a cold pack for the throat at night.
  - 5. A dilated stomach and slow digestion.

Breakfast Menu — Bananas — Tomatoes — Diet for a Student — Cocoa Milk. — S. G., West Virginia; "I. Is the following a sufficient breakfast for a woman who teaches four hours between breakfast and lunch: One saucer cream of wheat or Pettijohn's breakfast food, one soft-boiled egg, one piece of toast, and fruit? 2. If not, what else should be added to the menu? 3. Are bananas a good breakfast fruit? 4. Are they easily digested? 5. Should a person who suffers from nervous indigestion eat tomatoes? 6. Why do some people say they cause cancer? 7. What food would be suitable for a boy nineteen years old, a student, who wants something to eat at night? 8. Is cocoa good at such a time? 9. At what time of day should milk be taken so as to be best digested?"

Ans.— 1. No. Instead, eat a very big bowlful, at least six ounces by weight, of well-toasted granose flakes, two or three soft-boiled eggs, one or two pieces of zwieback, and plenty of stewed fruit.

- Protose or nuttolene may be used in place of the egg.
  - 3. Yes.
- 4. Yes, if the bananas are thoroughly ripened; but wilted bananas are very indigestible. Their digestibility may be improved by baking.
- 5. Tomatoes are not contraindicated by nervous-
  - 6. Because of ignorance.
- 7. Neither young people nor adults should eat anything but fruit at night. They should eat neither preserved fruit or fruit with sugar and cream, but simply ripe fruit, fresh or stewed.
  - 8. No.
- At noon; but it should not be taken with vegtables, and often it disagrees with fruits.

Grape Juice — Currant Juice — Water-melon. — Reader, Indiana: "I. You claim that grape juice is nourishing. In a severe case of indigestion, is it best taken at or between meals? 2. Is it helpful in kidney trouble? 3. Will it be beneficial for a man sixty years old who suffers from nervous prostration and scarcity of blood? 4. If not, what should he eat and drink? 5. Is currant juice good for indigestion? 6. Will it relieve constipation? 7. Is a ripe watermelon healthful if eaten at meals?"

Ans.— I. Grape juice may not agree with all cases of indigestion. In persons suffering from sour stomach or flatulence, grape juice and other fruit juices may increase the difficulty, especially when taken with other foods. Fruit juices do not agree well with vegetables. Fruit juices sweetened with a considerable amount of malt honey are likely to ferment.

- Yes; fruit juices encourage the action of the kidneys.
- Yes, but it should be taken at night or half an hour before meals, rather than at the meal, as it may interfere with the eating and digestion of other foods.
- Granose, Sanitas nut products, and predigested cereals, such as grānut, granola, and malted nuts, are indicated.
  - 5. No.
  - 6. No.

7. Watermelons are wholesome, but should be taken as drink and not as food. Watermelons consist of wood and water mixed with a little sugar. The water and sugar are wholesome, but the wood should be rejected.

Diet for a Nursing Mother.—F. A.P., Tennessee: "1. Should the diet of a nursing mother exclude acids? 2. Should she eat more than if she were not nursing a child?"

Ans .- I. No.

2. Yes.

Quinsy.—W. J., Pennsylvania: "1. What is the cause of quinsy? 2. Can you give any remedy to be used when symptoms are first felt? 3. Is cutting necessary?"

Ans .- I. Germs.

2. Gargle hot water in the throat. Foment the throat thoroughly fifteen minutes at a time for two hours, alternating with cold compresses. Change the cold compress as soon as it begins to warm, Gargle the throat with very hot water fifteen or twenty minutes. Take a hot leg or a hot sitz bath or a hot blanket pack to the legs, The hot treatment may be followed with advantage by the wet-

sheet pack, which should be continued to the sweating stage, keeping the head and throat cool. When the color of the throat inside becomes blue or purplish, the cold compresses should be discontinued. Apply instead, after each fomentation, a heating compress covered well with mackintosh, to be retained until next fomentation.

3. Yes, if suppuration occurs.

Fireplace—Ventilation—Sanitary Illumination—Closed Nostril—Inhalers—Exercise.—F. J. M., Minneapolis: "Does a fireplace ventilate a room? 2. What is the most sanitary method of lighting a room? 3. What is the sign when one nostril is never so clear as the other? 4. What is the value of the formaldehyde inhaler? 5. How much exercise should a person leading a sedentary life take daily?"

Ans .- I. Yes.

2. Sunlight and electric light.

Obstruction of the nostril either through affection of the vomer, or swelling of some of the affected parts.

4. In the writer's opinion, it is of doubtful value.

5. At least one hour of vigorous walking in the open air, or an equivalent amount of exercise.

Thin Hair.— Miss M. B. S., Massachusetts, asks if it would be advisable to have her hair cut, as it is very thin. She is troubled with dandruff, and patches of small, red pimples are breaking out around the edge of the scalp."

Ans.— Yes. The scalp should be thoroughly treated by an antiseptic lotion, bathing with cold water, and friction twice daily. The following lotion would be found useful: Alcohol, three ounces; resorcin, one ounce; castor oil, ten drops.

Cold Feet — Cold Baths.—C. E. E., Nebraska: "1. Can you give me an effective cure for cold feet? Alternate hot and cold foot baths produce no result. 2. Should one take cold baths upon arising, in a room whose average temperature is 35° or 40° F.?"

Ans.—1. The running foot bath, taken as follows: The patient stands in an ordinary bath tub, near the foot of the tub. Partially obstruct the outlet by placing the plug over but not in the opening, and turn on the cold water. The water should not be more than an inch or two deep. The patient stands on one foot, and rubs it with the other foot, alternating every few seconds. This is continued for five minutes, and should be followed by vigorous rubbing. Clothe the feet very warmly, wearing felt shoes or boots, if necessary, changing the stockings daily.

2. No. The bath should be taken in a room at about 70°, so as to insure getting a proper reaction.

Cardiac Neuralgia.— J. L., Nebraska, is troubled with a distressing, gnawing pain, sometimes changing to a burning, pricking sensation around the heart region, with occasional shoots of pain into the left shoulder blade, and a slight crampy feeling through the entire left arm and fingers. Pulse 65 to 70, of medium strength, sometimes very weak. Diet: Poached eggs, granose, protose, bromose, and cereals. Can you name trouble, and prescribe remedy and diet?

Ans.—The case may be serious. An expert physician should be consulted for an examination of the heart. There may possibly be an aneurism or some other disease of the heart.

The diet named ought to agree with the stomach.

Passive Congestion — Water Cure. — A subscriber, Texas, writes: "1. Can you prescribe simple home treatment for passive congestion of the upper part of left lung? Trouble is of only a few months' standing, and heart and general health are decidedly weak. Would the hot-water bag applied between the shoulders give relief? 2. Do the water-cure treatments always retain their effectiveness?"

Ans.—1. Chest pack at night. Cold hand bath on rising in the morning. Horseback riding or other moderate out-of-door exercise daily. Out-of-door life. Protect the chest during the day, if the weather is cold, by flannel placed over it. Massage and a regular course of sanitarium treatment would be beneficial. The chest pack would be better than the hot-water bag.

2. Yes, as long as the system can be made to react to the application.

Chilblains.— L. J. W., New Hampshire, would like to know the cause and cure of chilblains.

Ans.— Chronic inflammation or congestion of the skin from exposure to excessive cold and sudden application of heat. The alternate foot bath is an excellent remedy. Dip the feet first in hot water for half a minute, then in cold water for ten or fifteen seconds. Repeat ten or fifteen times, dipping last in cold water. Repeat twice daily, being sure to rub well after each treatment.

Rheumatic Iritis.— J. B. W., Massachusetts, asks the cause of and cure for rheumatic iritis,

Ans.— The name of this disease indicates a uricacid origin,

Weak Heart — Slow Digestion — Numbness.— W. H. G., Illinois, wishes to know how he may build up a strong system, and cultivate a happy spirit. His heart is weak and slow, pulse averages forty-nine, digestion very slow, and tongue coated continually; hands and feet are subject to numbness when temperature is low. He abstains from flesh foods, tobacco, liquor, tea, and coffee; eats granola three times daily, with fruit and light vegetables — no cabbage, cauliflower, turnips, or parsnips. Takes a cool bath before retiring, sleeps well, rises at six A, M.

Ans.—By a healthful diet, daily cold bathing, an out-of-door life, and exercise enough every day to produce vigorous perspiration. Take fruit only at night. Take a cold bath in the morning immediately after rising, instead of at night. Wear a moist abdominal bandage at night.

Hyperpepsia—Good Health—Cold in the Head—Tonsilitis—Rheumatism—Pregnancy:—Mrs. J. A. C., Illinois: "I. Should a person suffering with hyperpepsia eat ripe pineapple? Can this form of dyspepsia be entirely cured after a year's standing? 2. What are the essentials to good health? 3. Can you give me an effective remedy for a cold in the head, throat, or lungs? 4. Kindly prescribe for sore throat and acute tonsilitis; also for rheumatism when the joints are swollen and painful. 5. Prescribe such treatment for a pregnant woman as will insure an easy delivery and a healthy child."

- Ans.—1. Yes, if he desires so to do; but he should avoid swallowing the pulp. A thorough course of sanitarium treatment will doubtless effect a cure.
- Pure food, pure air, pure water, abundance of exercise, plenty of sleep, and general attention to health culture.
- 3. Hot bath taken immediately after taking cold will generally effect a cure. The hot bath should be immediately followed by a cold bath, with vigorous rubbing and exercise to secure a good reaction. For a cold in the head or throat or chest, a hot foot or leg bath is generally helpful. A moist pack should be worn over the top of the head at night when the nose is affected; or about the throat or lungs when these parts are affected.
- 4. See answer to W. J., Pennsylvania. For rheumatism, rest in bed with complete rest for the joint, with general sweating bath daily, and cotton poultice to the joints, is usually effective. The electric-light bath, general and local, is the most valuable remedy known for the treatment of this difficulty. The dietary and all the habits of life should receive careful attention.
- 5. Respectfully referred to the chapter on this subject in "Ladies' Guide," Modern Medicine Pub. Co., Battle Creek, Michigan. The details are too lengthy for publication here.

Pain under the Ilium.—G. W. S., Battle Creek, desires to know the name, cause, and cure of a pain in the left side of the back, under the ilium. Lying on the left side intensifies the pain.

Ans,—It is impossible to make a diagnosis in this case without a personal examination. Our correspondent is advised to consult a competent physician.

Olive Oil — Nut and Fruit Dietary.—J. E. S., Iowa: "1, Where can pure olive oil be obtained? 2. Is a diet of raw nuts and fruits sufficiently nutritive for a person who lives an active, out-of-door life? 3. What proportion and how much of each should be used?"

Ans. - 1. Address Sanitas Nut Food Company, Battle Creek, Michigan.

- 2. Yes, if thoroughly masticated, and eaten in sufficient quantity.
- 3. The proportion differs according to the varieties of fruits and nuts taken. Fruit may generally be eaten ad libitum, and enough nuts should be taken to furnish from three and a half to four ounces of proteid and sixteen ounces of starch. On page 12, of "Balanced Bills of Fare," obtainable from the Good Health Pub. Co., is given a table of food units in different combinations of nut foods and fruits.

Deafness — Varicose Veins — Varicocele. — D. H. H., Ohio: "I. What will remedy deafness and ringing in the ears, of long standing, in a person fifty-nine years old? 2. I have varicose veins in both legs. What can I do for them? 3. Please give a cure for varicocele, which has troubled me for ten years. I am also troubled with dyspepsia and nervous debility."

- Ans.— I. The condition is probably not altogether curable; it may be benefited, in many cases, by the application of galvanism, vibration, massage of the ears, and by internal treatment through the Eustachian tubes by a competent ear specialist.
- Bathe the legs with towels dipped in cold water for two minutes morning and night, two or three times a day; afterward apply an elastic bandage or an elastic stocking.
- 3. The condition may be improved somewhat by a cool sitz bath at a temperature of 60° for five minutes, twice daily. It can be radically cured only by an operation. For dyspepsia and nervous debility you should put yourself under treatment at a thoroughly equipped sanitarium for a few months. These troubles require more careful supervision than can be given the case at home.

### LITERARY NOTICES.

A TWENTY-FOUR-PAGE pamphlet entitled "Health, or Lung and Muscular Gymnastics," by William James Cromie, Physical Culture Director of the Y. M. C. A. at Eaton, Pa., deals in a plain and practical fashion with the value of exercise as a promoter of healthful muscle and body building. The writer admits the argument that big-muscled men are oftentimes unhealthy, but claims that these obtained their massive physique by lifting heavy weights, and engaging in too violent exercises, such as prize fighting and other brutal sports which give muscular development only at the expense of the mind, and contrary to all laws of nature and intelligence. He cites many of the old philosophers, Bible characters, and men of modern history, as proofs of his arguments for physical exercise, and recommends to those delicate in health and weak in body, four great natural and curative agencies - Air, Diet, Water, and Exercise.

The regular departments of the February Chautauquan are rich in special material on current topics. The cover design frames a striking portrait of Pres. James M. Monroe, the father of the famous Monroe Doctrine. A list of good things includes "Our Dog-in-the-Manger Policy in South America," by George Waldron, "Formative Incidents in American Diplomacy," by Prof. E. E. Sparks of the University of Chicago, a well-illustrated article on bird life by Francis H. Herrick, Professor of Biology at Western Reserve University, and "Woman Suffrage in Colorado," by William McCleod Raine.

President Charles F. Thwing, of the Western Reserve University, contributes to Modern Culture, for February, an article entitled "What Is a Good Teacher?" The "good" teacher will find described in this article the very points in which she excels. Albert A. Merrill, of the Boston Aeronautical Society, writes on "Mechanical Flight,". giving reasons for his belief that the aeroplane and not the dirigible balloon is the coming air ship. "South Carolina's Dispensaries" are written up by Dolly K. Vancey for the benefit of the thirsty pilgrim to the Charleston Exposition. " The Vatican and Its Treasures," by N. Hudson Moore, "Queens of America," by Mrs. Philip Fall King, "A Group of Chicago Violinists," by Graff Clarke, and "American Humorists," by C. A. Urann, are some of the other titles in a number of varied and exceptional interest.

It is not often that one finds Biblical truth and scientific theories and facts combined in so interesting a way as to make it fascinating for the young, and profitable reading for the more serious-minded adults. Yet L. A. Reed, B. S., M. S., Jacksonville, Ill., has proved that such may be done, and has given a very practical example of it in his little book entitled, "The Scriptural Foundation of Science." The book is the result of over three years' careful study and writing, and the illustrations are all Professor Reed's own pen-and-ink sketching. The chapters include "Scientific Theories," "The Air," "Gravitation," "The Transfer of Radiant Energy," "The Conservation of Energy," "The Center of the Universe," "The Earth in Space," "Stars Innumerable," "Celestial Magnitudes," "The Infinitude of Space," "The Gospel of Despair," "Different in Glory" (a treatise on the glory and character, color of lights, chemical elements, etc., of the numerous celestial bodies), "Fixed Stars," and "The Reign of Law."

Founded as it is on the Word of God, yet strictly scientific, "The Scriptural Foundation of Science," cannot be too highly recommended to the children of our homes and the students of our schools.

Edward M. Shepard, in the February issue of The Atlantic Monthly, gives a remarkable summary of the recent struggle in New York politics. Mr. Shepard pays a loyal tribute to his successful rival, Mayor Low, and states his own reasons for the stand he took in the late contest. A critical résumé of the operations of the new administration is given under the title "Three Months of Roosevelt," by Henry Loomis Nelson, while J. T. Trowbridge gives some delightful "Reminiscences of Walt Whitman." Other strong discussions of modern thought on modern topics make this an unusually interesting and instructive number.

The well-known writer, William Allen White, has a characteristic sketch of Grover Cleveland in the February issue of **McClure's**, which, from his friends' point of view at least, does that statesman no more than justice. The history of Marconi's great achievement is interestingly told by Ray Stannard Baker, and the frontispiece is an excellent photograph of the inventor, taken especially for *McClure's Magazine* only a few days after the first wireless message had been received at St. John's, Newfoundland, from across the ocean. In another of her inimitable child sketches, "Ardelia

in Arcady," Josephine Dodge Daskam gives a city Arab's view of the Fresh-Air-Fund question, and the wrong way of doing things under that excellent organization's administration. The magazine closes with a laughable little story of married life—the story of a dilemma in which every wife, especially the newly married, will be able to sympathize.

"John Chinaman in America" is described and discussed by Dr. Ira M. Condit of San Francisco, in the February number of the Missionary Review of the World. This is especially timely because of the present agitation of the Chinese Exclusion Bill. Among other articles worthy of mention are those by Dr. Perry, of Japan, on "Mr. Mott and Japanese Students;" "The Crisis in South African Missions," by Dr. Bunker; "The Evolution of a Boxer," by Dr. John Ross; "Li Hung Chang and Missions" by Robert E. Speer; and "Mormonism and Purity," by Rev. Wm. R. Campbell.

Hon. J. Franklin Fort, justice of the Supreme Court of New Jersey, discusses a timely topic in the February Forum, under the title "The Reformation of Criminals," Some practical suggestions are given to "The Young Man with Nothing but Brains," by Mr. Trueman A. De Weese, and in view of the present discussion of anarchism in the United States, John T. Buchanan's views on "How to Assimilate the Foreign Element in Our Population," are to be appreciated.

The man or woman who wishes to keep up to date on general advertising matters, cannot afford to do without that representative journal, **Printer's Ink**. This is America's leading journal of advertising. It is a bright, practical, independent weekly for advertisers, and no one can fail to gather from its pages inspiration and information in all matters pertaining to successful advertising.

Cyrus Townsend Brady, who as archdeacon of Kansas witnessed one of the rushes of settlers into Oklahoma, tells in the February issue of Scribner's, a most dramatic tale, with the "rush" as the main incident. Francis E. Leupp, the well-known Washington correspondent, points out with sympathetic insight the picturesque side of "Washington, a City of Pictures," Lovers of the beautiful cannot help being charmed with the many views, taken at different seasons, which illustrates this article.

Apropos of Lincoln's birthday, Feb. 12, a timely article in the February issue of Lippincott's Magazine compels attention. It is a paper on "Lincoln's Official Habits," by Leslie J. Perry, late of the War Records Office at Washington. A sympathetic poem entitled "Blind Children," by 1. Zangwill, heads the list of verse, and John Strange Winter, who needs no introduction to fiction readers, is in her element in the plot of "The Standings," one of her best novels.

The February issue of Success is decidedly a Lincoln number. The cover design shows the great commoner resting from his rail splitting to study, while ex-speaker Grow, a personal friend of Lincoln, tells in a graphic manner of one of the most trying weeks of the statesman's political career.

The February Arena is unusually strong in its discussion of several important questions of the day. It opens with a splendid essay on the economic, religious, and political aspects of "Anarchism," by Rev. R. Heber Newton, D. D., who deals with his topic in a clear and logical way. "French vs. English," by Eltweed Pomeroy, A. M., is an interesting comparison of the English House of Commons and the French House of Deputies. Henry W. Stratton deals with "Music and Crime;" John Dolman discusses "Municipal Reform;" and Prof. Frank Parsons considers the "Governmental Ownership of the Telegraph and Telephone."

Good Housekeeping has its usual newsy, wide-awake, and helpful number for February. Housekeepers will be delighted with Mary M. Willard's practical talk, "When Eggs are High." Dr. Canfield, librarian of Columbia University, shows "Wherein the College Should Help the Mother," while Gertrude Sherman Trowbridge pleads for the "Children Despoiled of Childhood's Joys."

Mr. Hamilton Wright Mabie will hereafter conduct a department in **The Ladies' Home Journal**, dealing with books, authors, and literary subjects in general. Mr. Mabie is one of the foremost American men of letters, and is therefore well qualified to make this new department of great value to the many readers of the *Journal*. A most interesting and timely article from His Excellency, Wu Ting-fang, Chinese Minister to the United States, is entitled "My Impressions of American Women."

### PUBLISHERS' DEPARTMENT.

### 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.

303 West Main Street

Battle Creek - - Michigan

### VERY LOW RATES TO THE NORTHWEST.

MARCH 1 to April 30, 1902, the Chicago, Milwaukee & St. Paul Railway will sell tickets to Montana, Idaho, and North Pacific coast points at the following greatly reduced rates: From Chicago to Butte, Helena, and Anaconda, \$30; Spokane, \$30.50; Portland, Tacoma, Seattle, Victoria, and Vancouver, \$33. Choice of routes via Omaha or St. Paul.

For further information, apply to any coupon

ticket agent in the United States or Canada, or address ROBT, C. JONES, Michigan Passenger Agent, 32 Campus Martius, Detroit, Mich.

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THE Good Health Adjustable Waist has a number of distinct advantages. It was cut by an entirely new method of measurements, and is made to fit the exact proportions of the natural form. In the construction of this waist the principle is recognized that the front of the body from the chest down over the abdomen demands room for expansion, as with every full inspiration the medium form expands about four inches.

An adjustable feature is the shoulder strap, which can be changed to make the bust fit more or less closely, and to lengthen or shorten the waist.

This waist may end at the waist line or cover the hips, according to the figure and the preference of the wearer.

For fuller information, write the Good Health Pub. Co., 303 West Main St., Battle Creek, Mich.

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OMPOSED of ozoniferous essences, vegetable antiseptics and benzo-boracic acid, Listerine is readily miscible with water in any proportion, and is the ideal individual prophylactic. A teaspoonful of Listerine in a tumbler of water makes a refreshing and delightfully fragrant mouth wash. Used at the morning toilet it effectively removes all agglutinated mucus which may have accumulated during the hours of rest.

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or water and glycerine, is a pleasant and sufficiently powerful agent.

Listerine has won an enviable position in medical practice in the treatment of catarrhal conditions of the mucous surfaces of every locality and is extensively used in the lying-in room. As a prophylactic and restorative douche or injection after parturition, an ounce or two of Listerine in a quart of warm water is generally all-sufficient.

The vapor evolved by the use of Listerine in the sick room, by means of a spray or saturated cloths hung about, is actively ozonifying, imparting an agreeable odor to the atmos-

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An ounce of Listerine in a pint of warm water forms a refreshing, purifying, and protective application for sponging the body during illness or health. A few ounces added to the bath enhances its tonicity and refreshing effect.

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COOKING by steam is no novelty; in fact, it is the method adopted in all large institutions as the most practical, economical, and cleanly, and as furnishing food in better shape for assimilation than any other. The advantages gained by the use of steam for cooking on a large scale apply just as well to a small apparatus, and one of the few devices that will fill every requirement in this respect is made by the Toledo Cooker Co., Toledo, Ohio, U. S. A., and illustrated herewith.

The Ideal Steam Cooker shown is equipped with a lamp to burn kerosene oil, and is a complete cooking apparatus in itself. A whole dinner can be put into it,—meat, vegetables, pudding, etc.,—



Reduces Fuel Bills One-half.

and it will cook all perfectly, without one's imparting a trace of its characteristic flavor to the other,
and all the juices and nutritive value of each article of food will be perfectly preserved. Nearly
one third of the food value, lost by the ordinary
method of cooking, is saved by this apparatus,
which is so cleanly that it can be used in any apartment, so simple that a child can manage it.

The cover is steam tight, making escape of steam and odor impossible; 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.

As stated above, it is furnished in the style illustrated, with lamp, a complete batterie de cuisine and stove in itself, or without the lamp it can be set on any ordinary fire, oil, or kerosene stove, and will work just as well. It is made in several sizes, particulars as to which the manufacturers will furnish on request,

This company also makes a full line of square cookers with doors.

# CAREER AND CHARACTER OF ABRAHAM LINCOLN.

An address by Joseph Choate, ambassador to Great Britain, on the career and character of Abraham Lincoln—his early life, his early struggles, with the world, his character as developed in the later years of his life and his administration, which placed his name so high on the world's roll of honor and fame—has been published by the Chicago, Milwaukee & St. Paul Railway, and may be had by sending six (6) cents in postage stamps to F. A. Miller, General Passenger Agent, Chicago, Ill.

### THE HYLO LAMP.

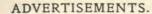
EVERY week and every month brings new evidences of material progress in the electrical world, and the Phelps Mfg. Co. of Detroit, Mich., have scored one in the invention of their wonderful Hylo lamp.

For twenty years or more, people have wanted an incandescent lamp which would "turn down." It has been an imperative necessity in the nursery, a long-felt want in the sick room, a needed economy for the vestibule. Heretofore nurses have tied towels and pinned papers around the lamps, at the imminent risk of burning the house down should these articles catch fire. But now we have a lamp which may be turned up or down, which will give a ballroom blaze or a burglar's twinkle, which saves five sixths of the light bill when turned down, and which eliminates all fire risks.

Mr. H. A. Dow, who for eleven years has occupied the position of chief electrician at the famous Battle Creek Sanitarium, writes to the Phelps Company as follows: "We are using about one hundred and fifty of your lamps at the present time both in the Sanitarium and Hospital, and are very much pleased with them.

"In every respect we find the Hylo lamp, which can be turned down," very satisfactory. Personally, I find it saves consumption in the use of the current, and really do not see how we could well keep house without them."

Any inquiries respecting the lamp will be furnished on request by the Phelps Company, 12 Rowland St., Detroit, Mich.







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To sell to your neighbors Dr. J. H. Kellogg's "Plain Facts for Old and Young of Both Sexes."

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Plain Facts for Old and Young of Both Sexes

Plain Facts for Old and Young of Both Sexes

Plain Facts for Old and Young of Both Sexes

Here are a few headings from the Table of Contents: Reproduction, Sex in Plants, Lower Animals, and Man; Anatomy of the Male and Female Organs, Ovulation, Fecundation, How the Unborn Infant Breathes. Birth, Nursing, Sexual Precocity, Puberty, A Critical Period, Time to Marry, Mutual Adaptation, Who Should not Marry, Fiirtation, Dancing, Dress, Meditation, Religion, Diet, Exercise, as related to Unchastity; Solitary Vice, Causes of the Habit, Suspicious Signs, Positive Signs, Results, Treatment; Chapters for Boys, Young Men, Married Men, Girls, Young Women, Wives, and Mothers; Fregnancy, Menstruation, Change of Life, How to Prevent Suffering, How to Develop Beauty and Loveliness, Association of the Sexes Pregnancy, Menstruation, Change of Life, How to Prevent Suffering, How to Develop Beauty and Loveliness, Association of the Sexes Proper, Responsibility of Parents and Teachers, How to Treat a Husband, Wives' Rights, How to Beget Sound Children, Controlling Sex, Heredity, Results of Excesses on Husbands, Wives, Offspring; Conjugal Onanism. Prevention of Conception, Moral Bearings of the Question, Continence, A Compromise, The Social Evil, Infanticide; 100 pages on Diseases Peculiar to Women, and Diseases of Men, 100 pages on General Health Topics—Alcohol, Tobacco, Clothing, Air, Food, Exercise, with a Home Gymnasium Department containing 1901 liustrations on Physical Culture.

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Cooks a whole meal over one burner, on gasoline, oil, gas, or common cook stove.

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THE GOOD HEALTH ADJUSTABLE WAIST has been developed in two styles, which are spoken of as -

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The Short Waist ends at the waist line, The Long Waist ends five inches below the waist line

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Sizes. The regular sizes are from 30 to

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In one operation on your kitchen stove,

It Filters, Purifies. Sterilizes. Destroys the Germs of Disease

and removes them, eliminates the poisonous gases, and aërates the water automatically.

Hon. W. L. Chambers, ex-Chief Justice of Samoa, writes :-

'I have been using one of your Sanitary Stills in my family for some time, and beg to say we are highly pleased with it. The water obtained from it is palatable and pure, and I take pleasure in recommending the Sanitary Still as all you claim for it."

The Sanitary Still is used in the White House.
The Battle Creek Sanitarium Supply Department recommends and sells the Sanitary Still.
Highest award at the Paris Exposition.
DURABILITY UNEQUALED. AVOID CHEAP AND FLIMSY

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THE CUPRIGRAPH CO., 156 N. Green St., Chicago, III.



# Williams' Electro Medical Batteries

### FOR HOME USE

Improved Red Cross Battery\$3	.50
Dry Cell 20th Century Battery 5	.00
Double Dry Cell Perfection Battery 8	.00

A sponge electrode, foot-plate, etc., will be sent with each battery. Also a book giving full directions for applying the currents.

FOR PHYSICIANS and others, who desire an extra large and very fine battery, we make The Double Dry Cell Dial Price, \$12.00 Battery .....

A large, beautiful machine. It has every improvement possible. A large illuminated dial on the face of it shows in degrees the current taken. As good a Medical Battery as can be made for any price.

We will ship any one of the above batteries C. O. D., with privilege of examination, to any part of the U. S., and pay all express charges. Send for illustrated catalogue "G," which gives a full description of all our Electro-Medical Batteries.

6 Barclay St., and 12 Vesey St.

General Office, 12 Vesey St.

P. G. WILLIAMS, Manufacturer,

NEW YORK.





The progress of a nation depends upon the health of its people. It has been demonstrated at the leading Sanitariums of both this country and the Old World that Sanitas Nut Foods are a precious resource to persons suffering from simple dyspepsia, hyperpepsia, and hypopepsia. They furnish all the blood-, brain-, and muscle-forming elements in the purest and most assimilable forms. Our experience is at your disposal. Sanitas Nut Food Co., Ltd., Food Chemists, Battle Creek Mich.



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The Superior Quality of this Powder makes it one of the best for the treatment of-

Prickly Heat. Nettle-rash. Chafed Skin. etc., etc.

It is an excellent remedy for PER-SPIRING FEET and is especially adapted-

For Infants.

Delightful After Shaving.

Price, post-paid, 25c per box.

Agents Wanted.

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# The Dr. Deimel Underwear

Insures Freedom from Colds, Catarrh, La Grippe, and Rheumatism.

The man who cannot sit in a draft without catching cold generally wears woolen undergarments. They keep the skin damp, and colds are the result.



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# Ladies' Guide

### In Health and Disease

BY J. H. KELLOGG, M. D.

THIS work admirably meets a want that has long been recognized by intelligent women in all parts of the land. Having devoted many years to the study of the diseases to which the sex is peculiarly liable, as physician-in-chief of one of the largest health, medical, and surgical institution is in the United States, and in the treatment of thousands of women suffering from all forms of local disease, the author has brought to his work in the preparation of this volume a thorough education and a rich experience, which have enabled him to produce a volume eminently practical in character, and calculated to fill the place in the practical education of women for which it is intended. It tells mothers just what they ought to know, in language they can not afford Nor to know what this book teaches them. This book is divided into seven parts, or sections. It graphically describes the great mystery of life,—the anatomy and physicology of reproductive. A Four of the sections bear respectively the following headings: "The Little Grit," "The Young Lady," "The Wife," and "The Mother." A most thorough discussion is given concerning the special dangers incident to puerty in girls, the physical and mental training of young ladies, the evils of improper dress and how to dress healthfully, the education of young ladies, personal beauty, courtship and marriage; the duties, rights, and privileges of the wife, the dangers of health incident to the matrimonial state, the prevention of conception, how to predict and regulate the sex of offspring, criminal abortion, and the special means which wives may adopt for the preservation of their health. Due consideration is given to the perils of mother-hood and how they may be avoided, including instructions by following which child-bearing may be made painless in most cases, and greatly mitigated in all. The management of pregnancy is also fully treated, and a large

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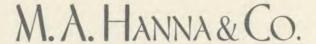
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Suspension Bridge Hamilton London Port Huron Fiint Bay City Saginaw Detroit Durand Lansing	7,00 8,45 11.05 M 12.00 I'M 1.35 AM11.30 I'M 2.02 2,45	9.00 11.07 10.00 AM19.05 12.57	11.15 AM 3.20 4.54 5.22 6.05	AM 6.50 8.45 7.25 8.00 7.00 9.30 10.50	5.54 4.00 4.25 4.10 6.30 7.50	
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