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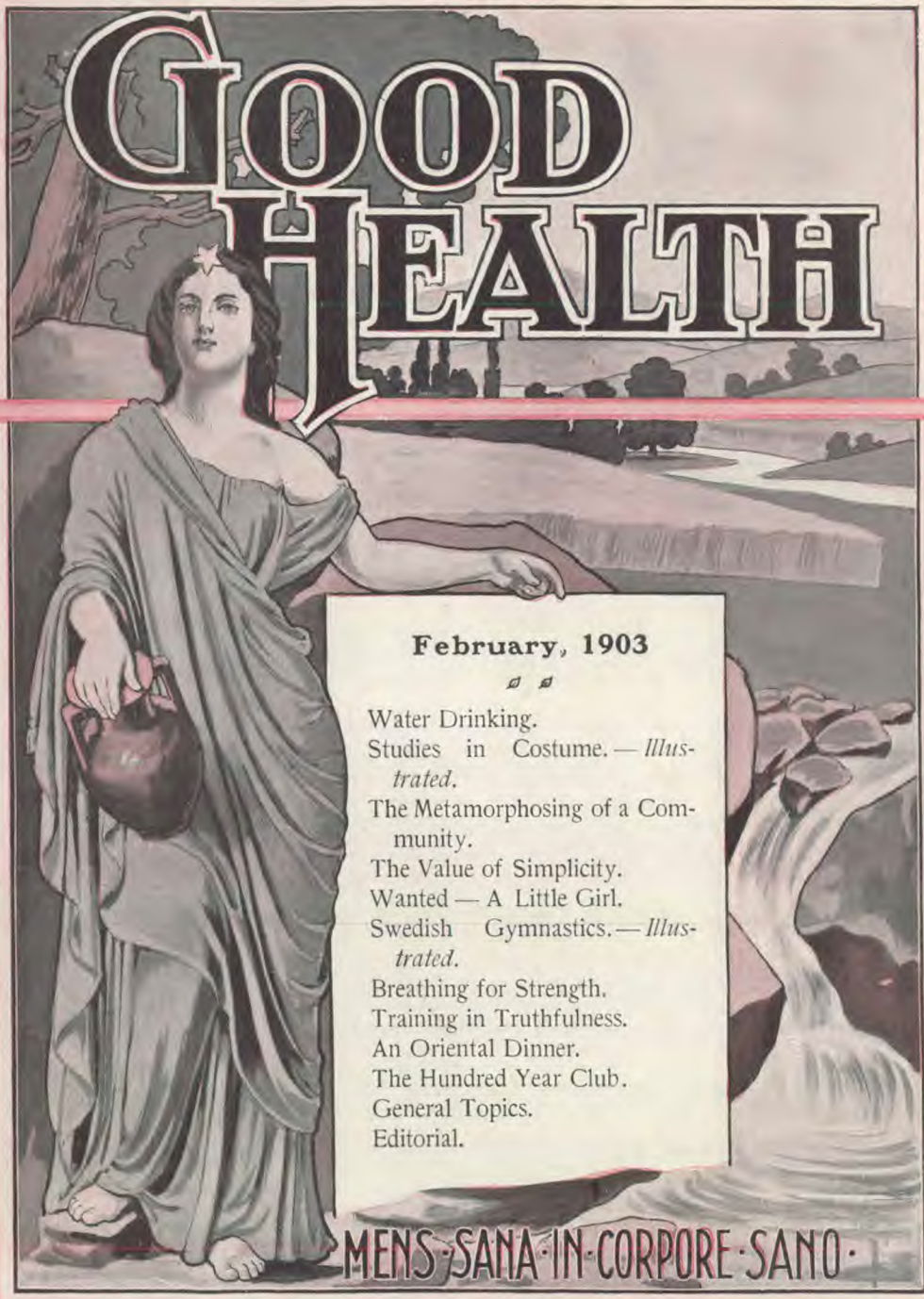
GOOD HEALTH



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Sweet Simplicity.

GOOD HEALTH

A Journal of Hygiene.

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WATER DRINKING.

BY J. H. KELLOGG, M. D.

THE free use of pure water is even more immediately necessary for the maintenance of life than the taking of solid food. Three fourths of the weight of the body is made up of this limpid element. Some tissues, as the blood, are nearly nine tenths water. The quantity of water which escapes from the body each day through the skin, lungs, and kidneys is about six pounds. This volume must be taken either as food or drink. Not infrequently the amount of fluid which escapes is greatly increased, as when one is exercising vigorously on a hot day. The body has been known to lose one fifth of its weight during violent muscular exertion, during exposure to great heat. Under such circumstances it is necessary, of course, to increase very greatly the amount of water taken into the system, as nature requires that a sufficient amount of water should be taken each day to compensate for that which has been lost. In certain diseases, as cholera and cholera morbus, the loss of water through the bowels is so rapid that the patient very quickly acquires the sunken cheeks and eyes and generally haggard appearance which is characteristic of these diseases.

Fruit and fruit juices may to a large extent take the place of water. Watermelons, oranges, grape fruit, and many other juicy fruits are highly useful in quenching thirst. The sugar which these juices contain is very nourishing, furnishing nutrient material completely digested, and ready for immediate absorption.

Fruit juices are decidedly refreshing, and afford a valuable nutrient which is ready for immediate absorption. Fruit juices have this advantage over water that, when obtained directly from the fruit, they are absolutely free from impurities, containing neither germs nor mineral impurities of any sort. The acids of fruits are also valuable because of their germicide properties. All fruit acids destroy germs very rapidly when brought into contact with them. They may be used as a means for purifying water. The juice of one good-sized lemon will, in half an hour, destroy any dangerous germs which may be present in a pint of water. Acid fruit juices taken into the stomach destroy the germs present in the stomach, or prevent their development. They are thus a valuable means of preparing the stomach for good digestion in persons suffering from hypopepsia, with so-called biliousness, coated tongue, and the like.

Very hard water probably tends, to some degree, to distribute digestion and also to produce calcareous deposits in the urinary and bile passages. Water which contains more than one part of mineral to one thousand parts of water should not be used without first boiling.

When boiled, such water deposits a large part of its salts, thus materially softening it. In some cases, the addition of a little limewater or a piece of lime aids in the precipitation of the salts.

Mineral waters, especially those containing large quantities of chloride of sodium or other alkalies, are highly detrimental, not only to the stomach, but also to the bowels, the liver, and the kidneys. Catarrh of the stomach and bowels is a common result of the long-continued use of laxative mineral waters.

Ice water should never be used, because it is damaging to the stomach when introduced at so low a temperature, the free drinking of ice water being in some cases almost instantly fatal; and because ice is very likely to be impure, being gathered from the surface of natural waters which are sure to contain germs of various sorts, animalculi, or decomposing organic matter. Iced fruit juices, fruit ices, iced lemonade, iced tea, iced milk, and other iced drinks are all objectionable for the same reason.

Water may be taken with advantage by most people on going to bed at night and immediately on rising in the morning. The best temperature is 60° to 70° F. Warm water is relaxing, hot water debilitating, very cold water chilling, whereas water at 60° to 70° has a tonic influence upon the stomach, promoting its muscular and glandular activities, and thus aiding digestion. The drinking of a couple of glasses of cold water before breakfast is an excellent means of relieving constipation. Water may be taken in sufficient quantity to satisfy thirst an hour before meals and a couple of hours after meals, but free drinking with meals or immediately after meals should be avoided. Of course, a few ounces of water, that is, a quarter or a third of a pint, may be taken at any time without injury, except in special cases in which all fluids must be avoided, on account of dilatation of the stomach, irrepressible vomiting, or some other unusual condition.

It is quite possible that by drinking too much at one time, injury may be done by overloading or overdistending the stomach. A glassful of water, or a half pint, should generally be found sufficient, two glasses at the most. Thirst is more readily satisfied by drinking slowly, taking frequent small sips, rather than drinking a large quantity at one time. When large quantities of water are swallowed, the kidneys are stimulated so that a large amount of serum is removed from the blood, more, in fact, than is compensated for by the amount of fluid taken in, so the thirst may be actually increased.

In certain diseases, as in fever, chronic rheumatism, gout, and autointoxication, it is sometimes necessary for patients to drink three or four times the amount usually required, twelve to fifteen glasses, or half as many pints, daily. In such cases great care must be taken to avoid injuring the stomach by swallowing too large a quantity at once. A glassful of water, or of water flavored with acid fruit juice of some sort, may be taken every hour while the patient is awake.

Patients suffering from acidity, and those who have catarrh of the stomach, may drink two or three glasses of hot water with advantage three or four hours after eating. Those whose stomachs form an excess of hydrochloric acid, and who suffer from acidity almost immediately after eating, should take half a glassful of very hot water half an hour before eating. Those who have a deficiency of hydrochloric acid, or hypopepsia, should take half a glassful of cold water, not ice water, half an hour before each meal.

STUDIES IN COSTUME.

The Romans.

BY ETHEL REEDER FARNSWORTH.

IT has been very truly observed that the necessary garments of mankind were never many; one fitting quite closely to the body, reaching to the knee or middle leg, for men, and to the ankles, for women; and another, ample enough to cover the whole person in inclement weather, have comprised the whole of the clothing of many millions of human beings.

The costume of the Romans was a modification of Greek dress to fit Roman necessities. It was the dress of the cultured, art-loving nation changed to suit the needs of the practical and aggressive one. And, while it lacked much of the easy grace which is characteristic of the Grecian dress, it was abbreviated and arranged so as to give the body greater freedom of motion.

The undergarment in general use by the Romans differed in no essential from the tunic of the Greeks, and was known by the same name. It was made of wool or linen, according to the season. It originally had sleeves reaching only to the elbow, but in the time of the emperors they descended to the wrist.

Over this, in place of the Greek peplum, was worn that pre-eminently Roman garment, that which may be called the national dress, the toga. In the earlier days this garment seems to have been worn by both men and women, by the lowest as well as the highest orders of society, at home and abroad, in town and country. A love of novelty was probably the chief cause for its relinquishment by the women. Later it was discarded by the men of the lower ranks, no doubt for motives of convenience while engaged in manual labor; and finally, fondness of ease and un-

AN EMPRESS.

AN EMPEROR.

restraint induced the men of high rank to lay it aside while enjoying the obscurity of private or country life. But during the entire history of Rome's undivided splendor, the toga remained the insignia of her free citizens.

There is some difference of opinion regarding the shape of this garment, but the most authentic opinion seems to be that it was nearly, if not quite, semicircular. We are led to this conclusion by the fact that nowhere among the numberless statues dressed in togas, do we see perfectly square corners like those of the Greek peplum. There is also some question whether it was, like the peplum, draped by a throw of the whole garment, or whether the folds were held in permanent place by stitches or clasps, like those of the modern dress. While no such fastenings can be seen, the uniform appearance of the garments would certainly suggest their existence.

In lieu of the discarded toga the plebeians wore as their outer garment a sort of cloak of rough, coarse material; to this was attached a caul or hood to cover the head when required. Over their metal armor, which was variously constructed at different periods, the soldiers wore a long open cloak, which was, no doubt, borrowed from the Gauls. It originally had sleeves, but these were discarded when it was taken to Italy. In times of danger this cloak was worn in the city of Rome by all ranks, save those of consular dignity.

Over the long tunic, which was usually bordered or fringed at the bottom, the women wore a variety of outer garments.

A SOLDIER.

These were all as simple in their structure as those already described, the difference being principally that which was necessary to make the garment suitable for the different seasons and occupations.

In the early days, the color of the toga was always the natural yellowish-white of the wool. Later, the undyed toga was retained for those of higher rank, while those in the lower walks wore theirs in various colors. In times of mourning a black toga was worn, or it was left off altogether. Various borders, and stripes of purple and red were indicative of different ranks and stations. Roman citizens in humble circumstances wore the tunic only, as did also foreigners, slaves, and gladiators.

The girdle, or belt, was a necessary appendage of the tunic. It was made of a variety of materials, and was variously ornamented according to the taste, rank, and circumstances of the owner. It was not customary to wear it at home, but no one appeared abroad without it.

To us who are accustomed to so elaborate and complicated a system of dress, the costume of the early Greeks and Romans seems primitive and even careless, but since two of the greatest nations of antiquity, great in letters and art as well as in the prowess of their arms, were content with it during their entire history, we can scarcely believe that the costume was not well fitted to their needs. The Roman matron in her tunic no doubt moved about her household duties with much more ease and comfort than her corseted and petticoated sister of to-day; and we can scarcely imagine her suffering from any of the endless train of headaches and backaches and sideaches which follow in the wake of long, heavy skirts and tight bands.

The Romans had a large variety of sandals and shoes. One kind covered the entire foot, and reached the middle of the leg, another was carried as high on the leg, but left the toes free. Others reached only a little above the ankle. Some of these covered the whole foot, while others were little more than

AN ORATOR.

sandals held in place by thongs of leather. The foot dress worn by the soldiers was a sort of sandal with a wide, heavy sole re-enforced with nails. The shoe chiefly worn by those of higher rank, and forbidden to the com-

mon people, was usually made of scarlet leather, but it was sometimes varied to purple. The shoes worn by the priests were of white leather, and very light in weight. It is a curious fact that the shoe or sandal worn by the civilized native Indians of Mexico as well as that worn by the wild natives of the Tonga Islands are simple modifications of the Roman shoe worn twenty-five hundred years ago.

Both Greeks and Romans usually went bareheaded, but they had several forms of head covering to be worn upon particular occasions. The two best known were the *petasus* and the *pileus*. The first of these was a wide-brimmed, low-crowned hat worn chiefly by travelers. The other was a woolen cap worn by the Romans at the public games and festivals. It was also generally worn by sailors.

While the style of dress which prevailed in the streets of old Rome could not be unhesitatingly recommended for use in New York or Boston, it had many advantages which are well worthy of modern consideration, by no means least among which is the perfect freedom of motion it allowed the body.

THE METAMORPHOSING OF A COMMUNITY.

BY JESSIE ROGERS.

THE little brown cottage on Hampton Street began suddenly to show signs of life. There was a throwing open of doors and windows, and a continued clink of carpenter's tools that was most aggressively suggestive. The little brown cottage did not stand high in the esteem of the people of Orrville — not that it was outwardly ill-favored, for every one admitted that its location was picturesque, and its general contour symmetrical; but because of past history it was sadly in disgrace. It had barely escaped the fatal cognomen of a "haunted" house because of the fact that in the annals of the town no death was directly chargeable to it,— "folks always got out just before they died," was the general comment.

Occasionally, in the rare event of a new family coming to the little burg, the newcomers would be attracted by the beauty of the place, and the glaring placard, "TO RENT," which filled the upper portion of one of the empty windows. Later, their goods and chattels would be moved in; but sometimes before a month elapsed, one or more of the inmates would fall ill, and grow rapidly worse, baffling the efficacy of Dr. Ashley's category of drugs, and that worthy would advise an instant decampment to other parts as the one remaining expedient.

So, like a vanishing cloud, the invalided family would disappear, and it remains yet untold just how many actually did cross the dark river as the result of their brief residence in the brown cottage.

When newcomers showed the spirit of inquiry, the uncanny character of the place was fully retailed, and the flock settled elsewhere. It was only heedless, independent souls that ran foul of the brown cottage. A native of the place would as soon have taken up his residence in the sexton's tool-house in the well-kept burying ground.

As a consequence, "TO RENT" decorated the front windows of Deacon Kirk's property for the greater part of each year. The house was preserved intact without the aid of a police officer. This was convenient; it would have caused awkward complications had it been otherwise, since John Smith (butcher) was legally detailed to fill that lucrative office. But the community was law-abiding, and he was left free for the most part to the cutting of pinky slices of pork and mottled rounds of beef. Perhaps a wholesome fear of its evil report preserved it from the depredations usually committed on empty houses.

But, once again the brown cottage had a tenant. Silas Truman, who held the legal reins of the municipal coach, was heard to affirm that a "smart-looking young chap" had come along with Deacon Kirk, and papers had been made out, transferring the troublesome property from the name of Kirk to that of Newton.

"Them as knows the least, asks least advice," was the comment of his auditors.

But the commotion at the brown cottage increased. Strange workmen continued to arrive,— men with the brisk step and capable air of those accustomed to the finishing of duties on the stroke of time. The narrow window sashes suddenly loosened their grip of the frames, where the paint of years had held them fast, causing the low room to be almost hermetically sealed. The roof was raised, so that the low-browed upper chambers became habitable; large, clear windows, perfectly adjusted, were fitted into the enlarged apertures. The very walls had their faces scrubbed with some cleansing substance whose odoriferous character plainly announced the presence of carbolic acid.

In the basement, where the mold lay thick, baskets of lime were placed, and were refilled as fast as the moisture was absorbed. The walls were treated to three coats of whitewash, heavily applied; an old range was set up, and a roaring fire — fed with the rubbish which a boy was hired to gather from the premises — was maintained for a lengthy period.

The floors were scraped, scrubbed, and polished until they disclaimed all kinship to their former selves. Every broken picket was replaced, and neat stone steps superseded the uncertain and wavering "ascent" of other days.

The outside of the cottage was treated to a generous coat of white paint, and thus was forever wiped out by the stroke of a brush, the ill-savored village term — "the brown cottage." It was deep set in a maple grove, and the sunshine touched it only at infrequent moments. A landscape gardener came out one day, and after a critical survey of the prospect, made a tour of the place, leaving a wide chalk mark upon certain trees in his wake. The next morning, the ringing clink of axes sounded the death-knell of the unmarked trees, and let in a blaze of sunshine, which poured cheerfully down upon the pretty cottage, making its snowy paint gleam.

The yard had never been graded, and

the irregularities, hillocks, and hollows of its original condition had been exaggerated by the uprooting of many trees. A strong farm team and a plow converted it into what seemed a prospective potato patch, and excited speculation grew reckless. Then there appeared rollers, scrapers, and the rest of the paraphernalia of grading. The offscoured earth was drawn to the back of the house, and deliberately dumped into the yawning mouth of the open well.

At this sacrilegious move, the wrath of the council at the corner store broke. "It's like the Philistines stoppin' the wells that Abraham digged," said Thomas Jones, class leader. "'Taint likely the young chap knows that my great-grandfather helped dig that well ninety-nine years ago, when the old Clinton homestead was built there. But I do lay it up agin him to have the handiwork of my forebears knocked out in this way."

"They had a laboratory fellow come down, and he said the green slime on the rock walls of that old pit would furnish microbes enough to kill a nation," said Jim Crowley, plow boy elect to the new resident.

"I well mind the time when half the neighborhood hung their milk and butter pails down the old well," continued the class leader, ignoring Jim's comment, "and what a commotion there was when bails let loose or ropes broke, spilling gallons of cream and rolls of butter to the bottom. I reckon there is many a pound of yellow butter down there."

"Preserved in a state of perfection these fifty years, no doubt," put in the irrepressible Jim, whose knowledge of hygiene had of late been growing by leaps and bounds. But the class leader evidently did not hear.

The soft brown earth was leveled about the cottage, and under its uncommunicative surface was buried the evil character of the old well, with its reeking accumulation of the rubbish of years. There followed a heavy sowing of grass seed, and traffic was carefully restricted for the time being to the concrete walks.

From the side of a pretty hill back of the cottage a tiny rill trickled down from a grass-grown spring. When this spring was cleaned, drained, and dug out, a fine, unfailing stream of delicious water poured forth. At small expense this water was conducted to the house by pipes, where a neat, cement-floored room, with a trough of the same stony material, was provided. Through this the icy water ran — a perfect refrigerator, with many advantages over the artificial article. A pipe in the kitchen, and another in the bathroom, completed the arrangement — "water in the house, just like the city," said Newton, gaily, as his wife stood gazing at the device with glad satisfaction.

It soon became known to the inquiring public that John Newton was the new manager of the factory that had made Orrville a town. While the factory afforded about the only means of livelihood, its influence had been degrading, and the proportionate good that it brought was questionable. It had been run on the basis of "get all, give nothing," and this dogma works both ways, as unfair and moneyed corporations are finding to their discomfort. As the populace had hoped against hope with each change of management, it was but natural that they should have more than the ordinary amount of interest usually manifested by the inhabitants of a small town in the movements of a newcomer. His attitude meant misery or betterment to them.

When the repairing of the house was completed, the furniture arrive. Bright, warm rugs, generous in size, and

abundant in number, were laid on the smooth, shining floors. Delicate shades, and soft curtains of dainty, sheer material were hung. The kitchen was a marvel of neatness and convenience. John Newton and his wife were very happy. This fact was heralded to the townspeople by the notes of the piano, which rang out cheerily every evening.

"They are just in the first stages of 'love in a cottage,'" was the cynical comment of the class leader's wife, in whose own experience that blissful period had been painfully curtailed. "Wait until she finds harder work to do than thumpin' that piano and puttin' out flower seed; wait—" "I saw her putting out a washing on that handy whirl-i-gig thing yesterday," said little Mrs. Estor, gently. "It did me good to see the way she whisked about, as if it never occurred to her that washing was hard work."

"Perhaps we ought to call," said Deacon Kirk's wife, meditatively,—the tone indicated a respectful query, with no idea of action until "moved and seconded" in due course.

And call they did. Within a fortnight Ethel Newton had admitted to her pretty parlor, singly or in relays, every woman of "quality" in the little town. With consummate skill she made her guests at ease with *themselves* (which, by the way, is really the thing that happens). Gossip, not venomous — usually — but cheap, punctuated the conversation of the women of Orrville to a most dismal extent. Ethel felt it as one feels an inharmonious note, or the rasping of iron. Of books, of pictures, of invention, of the great questions that are of such thrilling interest, they knew as little as if their place of residence had been within the inner confines of Tartary.

"If any one can waken them, you can," said Mr. Newton, when Ethel spoke to him of the matter after meeting the women of the town. Inferiority and ignorance are invariably their own worst foes, and through the months that followed, Ethel's endeavor to get near to the mothers of the town was repulsed by that indescribable barrier which so often intervenes between the cultured and the coarse.

The work at the factory prospered. The village likewise prospered. The young people found ready and well-paid places of labor. In exchange, faithful and honest work was expected and given, while the discipline — that uneasy spirit which is the haunting horror of management in any capacity — was placed upon a basis of self-control, and wrought wonders. Occasionally all the employees were invited to spend a delightful evening at "Snow Cottage," where the sweet-faced hostess unobtrusively opened new vistas of the great world beyond their narrow groove, and wakened many a healthy ambition in young hearts that had been before utterly lacking in aspiration.

"But, John, dear, I'm no nearer the mothers than I was ten months ago," she sighed, one night after one of these pleasant gatherings. He had thanked her for what she had done for the boys and girls, for he well knew that the delicate help that she gave had made a great lightening of his burdens.

"Sort of ostracized from 'high life,' aren't you, dear?" he said, playfully; then more soberly, as he looked fondly at the troubled face of his wife, "it will come sometime, little woman; one of these days the golden doors of opportunity will swing open, and my nimble-witted girl will not lose her chance to enter."

Like many another, he spoke more truly than he knew.

(*Concluded next month.*)

THE VALUE OF SIMPLICITY.

BY H. B. FARNSWORTH, M. D.

"Real life and clear, cold water are always found together;
Wine and madness, and fine clothes and the devil are never far apart."

CIVILIZATION seems to be seeking anything but simplicity, plainness, and comfort for the individual who, in any way, takes a part in the commercial, social, or political world nowadays. The diet is selected and dishes prepared to gratify the taste, the proper nourishment of the body being seemingly deemed of secondary importance. The clothing is made to conform to the latest fashion, rather than to the freedom and comfort of the body. Brain-workers drive their intellects to the exclusion of the physical man, and when night comes, those who cannot sleep as nature intended, contrive to induce sleep artificially, or are content with snatching only sufficient of "Nature's sweet restorer" to aid the jaded body and brain to take up the next day's imperative duties, apparently disregarding the full need of the organism, and their own future welfare, as well as that of generations to come.

This is a time above all others when simplicity and moderation in eating, drinking, dressing, sleeping, and every detail of life are highly essential. The times demand an emphatic protest against the prodigal using for to-day the endurance with which Nature has endowed us, without thought of conserving it for the morrow.

Moderation is the silver thread upon which to string all our pearls of virtues. Simplicity and directness of thought do much to form a logical mind and a forceful character. Worry, which is nothing more than unnecessary and misdirected mental activity, always means inhibition of legitimate thought and loss of mental power. The brain cell which has been stored with data for life's work may be entirely destroyed by worry — and cells thus destroyed are never regenerated. Moderation in eating would save many attacks of gastritis and intestinal disturbances. It is the man who is an epicurean who has "stomach trouble." That of which he is to partake at the table occupies an undue amount of his attention. But the one who uses the energy of his muscles and brain in honest toil is rewarded by an appetite which does not need whetting. Even a crust is sauce to the hungry man. It is the high liver who gives his business inferior attention, whose progeny are afflicted with nervous, constitutional, and organic defects, and who at last demands the services of hospitals and sanitariums for reconstruction and rejuvenation.

On account of an increase in means and affluence there is a growing lack of attention to the symmetrical development of the body among the greater part of our people. The results are soft, flabby muscles, weak organs, made weaker by excessive and continuous work, flat chests that are used to do the breathing absolutely necessary, weak hearts, defective digestive powers, and a neurotic and unstable disposition. These being present in the parents of to-day, the generation of to-morrow must as a consequence be handicapped in life. "Every human being is the product of a principle which has been taking notes of the lives and habits, the neglects, the excesses, and the abuses of every crime against the body through all generations

from Adam down to the individual man in question."

Dr. Oliver Wendell Holmes puts it tersely in saying that we are each an omnibus in which all our ancestors ride. We are each the recipients of the physical, mental, and moral powers with which our parents endow us; and shame to him who will serve his own with less than the best of which he is capable. Nature makes ample amends when we carefully and conscientiously turn to the cultivation of a broad, wholesome, and hearty physical or intellectual manhood. She forgives and heals, making the very best possible of the material at hand in accord with the co-operation she meets in the individual. Because of the simplicity necessary to the cultivation of health and uprightness, we often overestimate her strictness and seek to improve on her ways. But he is wisest who brings in least of the artificial, and learns to read Nature's plain precepts in sufficient sleep, concentration of the powers of mind and body on the work in hand, the judicious selection of the articles of food, and well-chosen clothing to meet the requirements of the climate and the personal station in life.

Each must strive to be his own guide, and blaze his own path through the intricate maze of multitudinous business and social requirements in conformity to Nature's kindly, but insistent, demands. The individual and community need never return to barbaric simplicity of living in any particular, but only allow the ministration of the simple laws as seen in the child to continue through manhood and womanhood until they may bring us to fullness of years, as wheat that has grown ripe through fulfilling the growth of the season.

The inanimate things of Nature and the lower animals may be blessed above the human animal in that they allow themselves to be the passive recipients of Nature's ministrations during the course of their lives; for man, often unwittingly, seeks in many ways to improve on Nature as he progresses in civilization, instead of developing and evolving the power she has put into the simplest of her laws. The wheat by natural limitations cannot help but receive the beneficent influences of the sun, rain, and wind; and so in his sphere man would show wisdom in the full and ample recognition of the elementary laws of his existence when it touches questions of diet, rest, manual and mental work, his intercourse with men, books, and current events, and the many other things that go to the symmetrical upbuilding of his mental, moral, and physical nature.

Just as the sunshine and rain bring all the elements of a full harvest to the waiting wheat, so Nature's simple ministers, sleep, exercise, pure food and drink, and fresh air bring vigor of mind and body, and the possibilities of a ripe old age to mankind.

Conserving and husbanding the powers with which one is endowed, as well as developing them by proper use, aids much in gaining the best physical and mental development so that one need not be unduly concerned for the future.

Physical exercise in moderation will develop a symmetrical body, not giving to the chest, heart, or muscles an overamount of stimulation, which may cause the man to become a physical monstrosity. One who acquires an athlete's heart or muscles finds himself handicapped when business demands that he spend less time catering to their abnormal requirements. While it is true that the lung capacity is an index to one's vital resistance, and we act wisely to properly develop it, yet the man with an excessive lung expansion may die of pulmon-

ary tuberculosis after all his lung gymnastics, as was the case with Mr. Dowd, the physiculturist. But in this case there was a predisposition, the conquering of which required more than simply lung development.

To acquire and maintain by daily attention that wholesome, active, and symmetrical state of physical development which is compatible with the daily needs and status of the body is far better than to be slaves to a muscle-bound body, enlarged heart, or abnormally developed chest. Stanch, enduring manhood must be maintained, and excess will always mean ruin.

Those men and women who at the present time become centenarians give universal testimony to a simplicity in living, eating, and sleeping, even though they may not have practiced strictly the highest hygiene. Circumstances have usually forced simplicity upon them, and thus they have lived closest to the great heart of Nature. Temperance always, and never excess and its companion, vice, is the rule. Vigorous old age is rarely, if ever, found in families who have not had to revert early to the first principles of toil for the necessities of existence. Activity, conserved and purposeful, is conducive to the best physical and mental powers, and so to the longest use. But in luxury and intemperance dwells the "*Thou shalt not*" of the physical life.

The bodily needs are to be governed always by a well-disciplined brain. To make the intellect uppermost, to "keep the body under," and withal to be moderate in our demands for that which is not strictly essential, is to help in maintaining that poise and equanimity of mind and body which all recognize in the "well-balanced" and cultured man. The best life of the community resides in such a man, and he teaches by example and daily living in a much better manner than can the health culturist by pen and voice.

The problem before those who are guardians of the public health to-day is not alone curative, but, the rather, prophylactic,— to teach by pen, voice, and precept the simple elements of personal and public hygiene which will recall the public mind to consider and practice Nature's beneficent, yet inexorable, laws.

The rules which are appended appeal to the reason, and force upon us by their simplicity, the sense of guilt of which we are often only too conscious in our daily living. The incessant drive, push, and nervous impetuosity which is characteristic of what has been aptly called "Americanitis" is only to be curbed and restrained as a national failing by the education in natural lines toward individual hygiene. The public conscience can be awakened only by family training in accord with such suggestions as are contained in the following ten hygienic rules.

These maxims won a prize offered in 1897 for the ten most effectual rules for the preservation of mental and bodily health. The author, Dr. Decornet, of Fertesur-Aube, won over five hundred competitors. The rules, as translated in *The Lancet*, run thus: —

"1. General Hygiene: Rise early, go to bed early, and in the meantime keep yourself occupied.

"2. Respiratory Hygiene: Water and bread sustain life, but pure air and sunlight are indispensable for health.

"3. Gastrointestinal Hygiene: Frugality and sobriety are the best elixir for a long life.

"4. Epidermal Hygiene: Cleanliness preserves from rust; the best-kept machines last longest.

"5. Sleep Hygiene: A sufficiency of rest repairs and strengthens; too much rest weakens, and makes soft.

"6. Clothes Hygiene: He is well clothed who keeps his body sufficiently warm, safeguarding it from all abrupt changes of temperature, while, at the same time, maintaining perfect freedom of motion.

"7. House Hygiene: A house that is clean and cheerful makes a happy home.

"8. Moral Hygiene: The mind reposes and resumes its edge by means of relaxation and amusement, but excess opens the door to the passions, and these attract the vices.

"9. Intellectual Hygiene: Gaiety conduces to love of life, and love of life is the half of health; on the other hand, sadness and gloom help on old age.

"10. Professional Hygiene: Is it your brain that feeds you? Don't allow your arms and your legs to become ankylosed. Dig for a livelihood, but don't omit to elevate your thoughts."

WANTED — A LITTLE GIRL.

(See Frontispiece)

WHERE have they gone to, the little girls
With natural manners and natural curls;
Who love their dollies, and like their toys,
And talk of something besides the boys?

Little old women in plenty I find,
Mature in manners, and old in mind;
Little old flirts, who talk of their "beaux,"
And vie with each other in stylish clothes.

Little old belles, who, at nine and ten,
Are sick of pleasure and tired of men,
Weary of travel, of balls, of fun,
And find no new thing under the sun.

Once, in the beautiful long ago,
Some dear little children I used to know,—
Girls who were merry as lambs at play,
And laughed and rollicked the livelong day.

They thought not at all of the "style" of their clothes,
They never imagined that boys were "beaux"—
"Other girls' brothers" and "mates" were they;
Splendid fellows to help them play.

Where have they gone to? If you see
One of them anywhere, send her to me.
I would give a medal of purest gold
To one of those dear little girls of old,
With an innocent heart and an open smile,
Who knows not the meaning of "flirt" or "style."

—*Ella Wheeler Wilcox.*

SWEDISH GYMNASTICS.

BY JOHN HOPKINS.

THE most perfect gymnastic plan ever arranged is undoubtedly the Swedish system. This system was originated by P. H. Ling in the early part of the last century, and has been developed and perfected by Dr. Branting and other well-known scientists and gymnasts. The Swedish government has, almost from the first, encouraged the work; several state schools have been established, and a thorough gymnastic training is a part of the education of every child from the time he enters the elementary school until he finishes in the government universities. In this respect we have much to learn from our Swedish brothers. Each school should have a carefully planned course in physical culture as a part of its curriculum. This work should be under the direction of one thoroughly educated in the best methods of physical training, one who understands his business and is capable of choosing the exercises needed by each individual. This is especially necessary in the training of children; their growing bones and muscles can be made to form perfect shapes and hold correct positions; they can be trained into grand living temples. But left to himself, or poorly trained, the child's physical development may become a drag, a hindrance to his mental and moral faculties, instead of an aid.

FIG. 1.

Swedish gymnastics aim at the development, first, of the heart, lungs, and other vital organs — to improve the respiration, digestion, and circulation — and second, to build up large muscles. A correct working position is held to be of primary importance, and all exercises must be taken in this position. This calls for an erect body, a straight trunk in nearly all movements. Any position which cramps the chest, and thus hinders the heart and lungs in their work, is dropped from the lesson.

The proper way to stand is illustrated in Fig. 1: the head is held well back, the arms straight and beside the body, the legs straight, the hips back, and the chest well lifted. The whole attitude, although energized, is yet the most restful if one accustoms himself to it. For one unaccustomed to holding himself correctly this position may prove tiresome. It is in itself, however, a splendid exercise, and without it, not only does exercise lose much of its value, but many movements are positively harmful.

The Swedish system has two important characteristics which it is well to notice. The first is the "day's order," or the lesson for the day. This arranges exercises in nine divisions, each of which contains work for a certain part of the body. The exercises are placed in the following order because far better results are obtained when they are thus arranged: —

1. Arch flexions, or backward bendings of the trunk, increasing the size of the chest cavity.

2. Heave movements,— developing the inspiratory muscles.

3. Balance movements,— for general equilibrium, good posture, and graceful carriage.

FIG. 2.

4. Shoulder-blade exercises,— for the back muscles, and to correct round shoulders.

5. Abdominal exercises,— to develop the abdominal muscles, and to improve digestion.

6. Lateral trunk movements, — to develop the sides of the trunk.

7. Jumping, leaping, vaulting, running.

8. Slow leg movements.

The second distinguishing feature of Swedish gymnastics is the thorough manner in which progression is made. Gentle exercises come first, and stronger, more vigorous work follows as it can be taken. Each class of exercises increases in strength until the middle of the lesson, then the work is made easier, until at the close of the day's orders the class is given work which quiets the rapid pulse and breathing. In each class of exercises, progression is made as follows: —

1. By holding a position some length of time before returning to commencing position; as when in knee bending, Fig. 3, we halt with knees bent and do head rotation or arm flinging.

2. By changing the base; for instance, side bending of the trunk is first done with the feet separated, then with feet together, then one foot in advance of the other, and finally, in a fall out stand.

3. By increasing the lever of the weight; as when in side bendings, wing, rest, yard, and stretch positions are successively taken. The various positions are seen in the accompanying illustrations. Wing stand: hands on hips, Fig. 2. Rest stand: hands clasped behind the head, Fig. 8. Yard stand: arms extended sideways, shoulder high. Stretch stand: arms extended upward, Fig. 3.

FIG. 3.

4. By increasing the weight of muscular resistance. Dumb-bells, pulley-weights, etc., furnish means to increase the weight. Increase of muscular resistance is provided for by bringing into use the antagonistic muscles; *i. e.*, in arm bending and stretching, using the

FIG. 5.

extensors of the arm to resist the flexors. This brings a tension and rigidity of the muscles, and should be followed by relaxing exercises.

5. By increasing the speed of the movement.

The following exercises are numbered according to the class to which they belong, and will progress in each class. Each exercise may be repeated from three to six or more times before going on to the next class: —

1. Wing standing, backward bending, Fig. 2. The hands are placed as shown, forming the wing-stand position. The position of the head is not changed, the chin being held down during the movement. Bending commences in the upper part of the trunk, the ribs are raised, and the chest is expanded both laterally and from front to back. This bending must be taken purely as a chest exercise. Breathing is deep and regular. The vigor of the movement can be increased by taking yard-rest or stretch stand.

Fig. 4.

2. Arms and body as in Fig. 1. Extend the arms upward and bend the knees, Fig. 3. This knee bending is quite an advanced balancing exercise. The simpler movements should be practiced first, as heel raising, executed in wing, yard, rest, or stretch position, or a knee bending not quite so deep, the knees bending only to right angles. The arm extension upward is a heaving movement. It will be made stronger if the antagonizing muscles are used, resisting the stretching up of the arms by a downward pull. Then make a few quick sharp extensions upward.

Fig. 3.

3. Reach stand, arm flinging. The arms are extended forward in height of shoulders, palm down, and separated a shoulder width; fling the arms sidewise, keeping the elbows stiff, the head still. With the elbows straight, fling the arms forward again, crossing the right arm over the left as far as possible. Repeat the sidewise fling, and on the return, cross the left arm over the right. Hold the head still during this work.

FIG. 7.

4. Fig. 4 illustrates the abdominal exercise, lying leg raising. It is taken first with the hands stretched over the head, then in rest, yard, and finally in wing, positions. Leg raising is taken with one leg first, the knee straight, foot extended upward; then the legs are raised alternately, and finally together, as shown. Figs. 5 and 6 also show an abdominal movement. The body is lowered by bending the arms, and then the arms are extended, pushing the body up. The number of arm bendings and stretchings must be increased gradually. Lying leg raising is an easy exercise for the abdomen, while the prone falling, arm bending of Figs. 5 and 6 are quite advanced. In all abdominal work there is a tendency to hold the breath. The breathing should be regular, deep, and full.

5. Wing (or rest), walk (stride), stand, side bending. This exercise is first taken with the hands as in Fig. 2, and the feet as in Fig. 8.

6. Running and jumping are the most excellent exercises for making the respiration and circulation stronger and better. These active movements bring into use large muscles, blood vessels, and nerves. A hunger and a thirst for air is created down deep in the large muscles of the legs, and the heart and lungs are spurred to greater activity to supply the demand. The lungs fill their fullest with the pure, fresh air, and then as quickly empty, pouring out the waste and the débris that has been brought to them by the blood. This exchange takes place again and again, until the waste is removed, and all the body has had a taste of the life-giving air. But to secure the advantages of the run, one does not need the track and equipment of the sprinter. Just throw open the window, and run where you stand; raise the knees well up in front of the body, and spring lightly on the balls of the feet. Run thirty, forty, fifty, or a hundred steps, and then breathe.

7. The run should generally be followed by slow leg exercises. Take the wing, walk stand, Fig. 7, and with straight back and knees and head lifted, bend forward several times. Inhale reg-

FIG. 6.

ularly with the bending forward. This diminishes the resistance to the work of the heart, and so quiets it.

8. Yard stand, arm elevation with head bending backward. The arms are extended sidewise, with palms up. As the arms are raised, the head is bent backward, and a deep breath is taken. Then the arms sink as the exhalation takes place, and at the same time the head is raised, the chin being drawn in first.

If the body is bent to the right side, the liver is compressed, and part of the contents is forced out; when the trunk is raised, the vessels refill. So the alternate side bendings quicken the circulation through the liver and increase the secretion of the bile. The peristaltic action of the intestines is increased, and the glands in the walls of the digestive tract are stimulated to greater activity. The work given for the abdominal muscles has a similar effect upon the digestive organs. The assimilation of the food is made better, and the trunk becomes broader and deeper. These movements are among the most infallible means of correcting constipation, but as in all other exercises, the good results depend entirely upon patience, perseverance, and good judgment.

BREATHING FOR STRENGTH.

BY CLIFFORD G. HOWELL.

INSTEAD of the above heading might be written, "Breathing for life;" for that is really what we do. And since this fact is so easily demonstrated, it is strange that we have not more quickly and fully discovered that in this vital process lies the secret remedy for a thousand ills, if not "the fable fountain of immortal youth." Men have lived weeks without eating, days without drinking, and nights without sleeping; but how long can we live without breathing? Twenty ounces of food and a few pints of water will supply the body one day; but, upon a low estimate, it requires thirty thousand pints of air in the same length of time.

The delicate machine which this volume of air enters is said to contain over 700,000,000 air cells, or little workshops. Into the walls of these there flows, like the sewerage of a great city, the foul, venous blood of the body. In these remarkable workshops it is quickly transformed into a rushing red torrent filled with life-giving oxygen from the air. What a wonderful invention! What a miraculous process! And yet you are trusted with operating one of these instruments.

Would you note its magical effect under proper conditions? Then stand erect. Open the doors and windows; or, if you are sick in bed, have them opened. Lift your chest and chin, and breathe the invigorating air of heaven, till the muscles of your abdomen fairly bound with joy. Now, isn't that a better tonic than tincture of iron? Then take it many times a day. Doesn't it taste better than Dr. Almanac's bitters? And it is better; infinitely better. And you can repeat the dose often. Even as I write, the fresh air tickles my finger tips; for when we breathe deeply, it goes to all parts of the body.

TRAINING IN TRUTHFULNESS.

BY MRS. E. E. KELLOGG.

IF little children are apparently prone to untruthfulness, it need not be considered as evidence that they are "born liars." Indeed, some students of child nature assert that the average child under five years should not be expected to recognize the distinguishing characteristics between fact and fancy, between realities and imaginings. These distinctions are the outcome of growth and training. However, this tendency, while it need not discourage the mother, should be looked upon by her as a signal for the necessity of at once learning to thoroughly understand her child, and to make special efforts to develop in him such power of perception as will enable him to discern truly concerning outward facts, and also to quicken and cultivate in him by every possible means a love of truth. Children love to imitate the life and activities which they observe around them, but the wise mother will be careful to give a trend toward truthfulness by teaching them to distinguish between the make-believe of play and the matter-of-fact reality in their conversation. For example, little Bessie, playing that a row of chairs is the railway train, calls, "Mamma! look out, the toot cars are coming!" "Real ones, or play cars?" asks mamma. "Oh, only just play cars," replies the child, which answer emphasizes the matter in the little one's mind, making the distinction between the real and the imaginary.

As a help toward the training of the child in truthfulness, read or tell him some interesting facts, call his attention to some pleasing thing, then ask him to give a description of what he has seen, or an account of what he has heard, insisting upon perfect accuracy in whatever statements he is able to make. He may not be able to give all the facts, but accustom him to accuracy even in the minutest particulars in such points as he has perceived. Accuracy of perception may also be aided by definite form or number work with blocks or spools. Ask the little girl who says she saw a hundred chickadees to place as many blocks on the table as there were birds, and then help her to count them. She will readily see her mistake, and be better able to judge correctly next time. The child's idea of abstract numbers is very vague until their relative values are made plain to him by concrete examples. More of the falsehoods of very young children are due to thoughtlessness and carelessness in speech than to any intent to tell untruths. Every possible aid toward training to habits of accuracy should be sought and employed.

It is a kindergarten principle that outward habits affect inward conditions. Accuracy in his work, in his problems and occupations, will aid the child to accuracy of thought and consequently to accuracy of speech, for "out of the abundance of the heart the mouth speaketh." A continued series of exercises in exactness, accuracy, and truthfulness in doing — both for hand, eye, and mind — will greatly help to give the bent toward honesty and truth in act and word. It is for these reasons that a training in sloyd proves a most effectual help in establishing truthfulness in a child's character. Gossiping, tale-bearing, repeating the affairs of others, is apt to have a strong leading toward inaccuracy. The child should be taught to measure all statements made concerning others with the three measures — Is it kind to speak of it? Is it necessary? Is it true?

Many parents teach their children to be untruthful by saying things to them or in their presence which are untrue. The little one is told if he goes outside the yard some one will carry him off; that if he doesn't stop crying, papa won't love him. He is taken to the dentist to have a tooth extracted, and told to sit quietly, for it will not hurt. He hears you say, as you see an unwelcome guest approaching your door, "Oh, dear, I wish she had stayed at home," while he notes that in a moment more you greet her with smiles, and say, "I am delighted to see you." He asks, as all children will, innumerable questions, and is given some nonsensical answer, which he learns, sooner or later, had not a particle of truth in it; or his mother replies, "I do not know," without further thought than to stop the annoyance of his questions. A short time after, he finds she has falsified her words to him when he hears her explain the whole matter to some other interested party. Parents should school themselves to answer their children's questions correctly. If they have not the time at command when the question is asked, let them arrange with the child for some time in the near future when they are at leisure, and faithfully answer the little questioner. Evasion and subterfuge are near of kin to lies. The child very soon learns to translate the "I do not know" of parents as "I do not wish to be bothered," and himself assumes the same rôle. When he is questioned concerning things he for certain reasons prefers not to disclose, he answers, "I do not know," and feels that he has a legitimate right to do so.

Parents who desire their children to love the truth must not only be themselves truthful in speech, but their whole behavior, their deeds, must be honest, sincere, and upright. Artifice to gain their purpose or spare themselves trouble should never be employed.

Make No Unconditional Promises.— Many parents teach their children untruth by threatening to punish them and failing to carry out their threats, or by making some promises which they fail to fulfill. Their word once given should not be broken. This is a point where parents need especially to watch and train themselves. With well-meaning purpose they promise a child some privilege or pleasure which, through forgetfulness on their part or unavoidable or unexpected changes in their plans, he fails to receive. How else shall the child designate such dealings, except that the parent has told him a falsehood? A teacher of little children who had among her number one who gave her much concern on account of the habit of untruthfulness, relates the following incident illustrative of the thought in hand: "Calling her to me one day, and thinking to touch her in that tenderest spot of childhood's heart,— love for mother, — I said: 'Do you think, Alice, that mamma could be happy if she knew her little girl was untruthful?' Imagine my surprise when the answer fell clear and unhesitatingly from those baby lips: 'O, that is nothing. Everybody lies to me.' Standing there in the presence of my little judge, for I was a part of that little world which she designated as 'everybody,' I questioned her. 'Have I ever told you a falsehood, Alice?' 'Yes.' The answer came slowly this time. During the singing lesson the day before she asked that we sing a favorite song. The time for the lesson had elapsed, and I answered: 'Not to-day, Alice; we will sing it to-morrow.' To-morrow had come and gone; but the song was still unsung. It was crowded out of my mind by the work and worry, the duties and pleasures of a new day; but her lit-

tle heart had waited for a fulfillment of the promise, and she said, with a child's true reason, 'It is a lie.' So it was,—that sort of lies which we tell to children over and over again, day after day. It is an easy way to put them off, but there must come a harvest after such sowing." Is this the reaping we desire?

IF I WERE YOU.

If I were you, I'd see my path of duty,
So straight and plain, without a curve or bend,
And walk upon it, without swerve or falter,
From life's beginning straightway to its end.
I'd be so strong, so faithful, and so true,
I would, if I were you.

—*Anna Olcott Commelin.*

AN ORIENTAL DINNER.

BY ROWLAND H. HARRIS, M. D.

IN Asiatic Turkey, guests dining with friends, sit in Oriental fashion upon thick carpets and about a table which is only slightly raised above the floor. As a mark of respect to their elders and to the guests, the children sit kneeling, and not in the more comfortable position with the legs crossed. A large round copper plate, varying in diameter from three to five feet, according to the size of the household, serves as a table.

In the center of this table is placed the one large dish of cooked food, which, with bread and fruit, constitutes the meal. The bread, which is baked in large sheets as thin and as soft as blotting paper, is placed on the bright copper surface in front of each guest. Each one about the table helps himself from the central dish, removing the food by means of folded pieces of bread held between the thumb and first two fingers, so deftly that his fingers come in contact with only his own portion of food. Spoons of polished hard wood and forks of silver or other metal are used.

Three meals a day are customary, the most substantial meal being served a little after sunset, when the fathers and brothers return from work. Among the common people only one dish of cooked food is prepared for each meal, and on account of this simplicity, frequent use of the same recipe is not necessary. Indeed, it is considered as an evidence that the cook lacks skill, if the same dish is prepared more often than once a week.

With the purpose of exhibiting the dishes most commonly used in Asiatic Turkey, Dr. Vahan Pampaian, assisted by Miss Yeprous Doodokian, both of whom are natives of Armenia, recently prepared an Oriental dinner at the residence of Dr. J. H. Kellogg. The thirty guests who were invited are physicians of the Battle Creek Sanitarium and their wives; and the occasion was one both instructive and pleasing. Dr. Pampaian interpreted the native Armenia names of the dishes, and told also the method of preparation. All agreed that the dishes served were so appetizing and

wholesome that they should be more widely known. The purpose of the dinner would obviously be defeated were the customary principal dish alone to be provided; and for that reason the following is more extensive than a native menu: —

MENU.

SOUPS.

Merjemic-chorbacy Beorack-chorbacy
Keofteli-yahny

CEREALS.

Prinjily-plough Merjemeckli-plough

VEGETABLES.

Badlijan-dolmacy Lahana-sarmacy
Tomatoes-dolmacy

DESSERT.

Bal-halvacy

RECIPES.

Merjemic-chorbacy (*rice and lentil soup*). — Lentils, carefully picked over, are coarsely ground in a coffee mill. The objectionable hulls are loosened in this way, and may be easily removed. A cup full of these prepared lentils is cooked slowly until soft. To the boiling lentils one-half cup of rice is now added, and the whole is cooked about one and one-half hours longer, or until the rice is soft. Cream may be added before adding the rice. The soup is more palatable when of thick consistency, and should be seasoned just before removing from the stove.

Merjemeckli-plough (*lentils with crystal wheat*). — The material for this dish, which requires a wheat preparation not made in this country, was obtained from the Syrians in Chicago. In Armenia the wheat to be used for merjemeckli-plough is cooked two or three hours until soft. The wheat becomes very hard in drying, and the hulls, by then rolling over the wheat a heavy stone, are loosened, and may be fanned or blown away. The wheat is then ground in a mill, each kernel being broken into four or five pieces, and is ready for use.

Prinjily-plough (*rice and vermicelli*). — Into two and one-half cups of boiling water to which salt has been added, put one cup of washed rice, and cook until nearly done. Stirring causes the rice to burn. One quarter of a cup of dry vermicelli, browned in butter, is now mixed with the rice, and cooked over a slow fire for fifteen minutes. This rice and vermicelli is most palatable when eaten within an hour after it is prepared.

Badlijan-dolmacy (*stuffed egg-plant*). — Cut off near the stem the top of a small-sized egg-plant, the shell of which has been pierced in ten or fifteen places by cutting with a knife gashes one-half inch long. Remove the inner portion of the egg-plant so as to leave a uniform layer one quarter of an inch thick adhering to the shell. Protose is mixed with an equal quantity of washed rice and seasoned. The egg-plants are filled only two thirds full with this mixture, space

being allowed for the swelling of the grain. They are then arranged on the bottom of a kettle and covered with water. When the egg-plants are soft, a little lemon juice may be added for flavor. If the lemon juice is added before the egg-plants are cooked, it will harden them. Boil till only one-half inch of the water remains on the bottom of the kettle, when the egg-plant is ready to serve. Onions, as well as lemon juice, may be used to flavor. The inner portions which were removed from the egg-plants may be cooked in the usual way.

Another method of preparing badlijan-dolmacy is the following: Cut large egg-plants in horizontal slices one-half inch thick, and sprinkle with salt. A layer of egg-plant is put on the bottom of a flat pan, and overlaid with a one-quarter-inch layer of a mixture of protose with tomatoes and onions. For two egg-plants use one medium-sized onion and four medium-sized tomatoes. Two other similar layers are added, and the topmost layer covered with egg-plant shell to prevent drying or burning. Tomato juice with water is added to cover the egg-plants in the pan. Bake in a hot oven, and if the egg-plant dries before it is tender, add more water.

Lahana-sarmacy (*rolled cabbage*).—A large head of cabbage from which the stalk has been cut deep into the head, is covered with hot water and boiled five minutes. This makes the cabbage leaves rather soft and flexible. The leaves are separated and cut into strips three inches wide. Take the protose-and-rice mixture used in the previous recipe, and roll in the cabbage strips, making rolls about one-half inch in diameter and three inches long. Pack all the rolls of cabbage side by side into a deep dish, and cover with the remaining cabbage leaves to protect them. Cover all with water, and bake in the oven until the water is evaporated.

Tomatoes-dolmacy (*stuffed tomato*).—Take well-shaped, sound tomatoes, and cut each one part way across the top, so as to make a lid. Remove all the inner part of the tomato, except the outer rim of pulp, and fill two-thirds full with the protose-rice mixture of the previous recipes. Add water to cover the bottom of the pan about an inch deep. Bake until the water is nearly evaporated.

Bal-halvacy (*wheatose and honey*).—Take two ounces of unsalted butter in a frying pan, and add two cupfuls of bees' honey or malt honey and some water, if it is not desired to have it too sweet. When it boils, add wheatose with stirring, until quite thick, and cook a little longer.

SUPPLY AND DEMAND.

A RICH man sat him down one night to dine
Rare was his food, superb his priceless wine.
A poor man, hungry, lurked without the gate,
And craved a crumb from off the rich man's plate.
Yet neither rich nor poor man ate that night;
One had no food, and one no appetite.

—*Selected.*

The Hundred Year Club

IT is not likely that any of our cotemporaries will live to be 969 years old, as Methuselah did, but there is no doubt that by careful attention to the manner of living the average period of life and usefulness can be greatly increased. In the seventeenth century the average of humanity was a little over thirteen years. During the first half of the nineteenth century the average life reached thirty-three years; and at the beginning of the twentieth century we boast of an average of thirty-eight years. These averages, of course, include infant mortality, war, pestilence, famine, earthquakes, volcanic eruptions. In England it is computed that at the present time that of 1,000 persons over 100 reach the age of 75; 38 reach 85, and 2 attain 95, while one in about 5,000 becomes a centenarian. The oldest man in modern times, according to the *Lancet,* was Michael Solis, who lived in Bogota, in 1878. He claimed to be at that time 184 years old, and Dr. Louis Hernandez, a man of over eighty years of age, who investigated the case, knew him as a centenarian when he himself was a boy. But the signature of Michael Solis, who is a half-breed, is extant on a document referring to the building of a Franciscan convent at San Salvador, under the date of 1712.

There is very little doubt about the authenticity of this remarkable case. The *Lancet* investigated it thoroughly in 1878, and came to the conclusion that the man was at least 180 years old then. It was in 1896 that Dr. Hernandez made his inquiries, and in 1885 he was still alive, so that his age, if he died in that year, was only two years short of two centuries. Michael Solis attributed his extraordinary longevity to his regular mode of living. He used to eat but one meal a day, and that he allowed to get quite cold before he touched it, while it consisted of the most nourishing foods obtainable.

Henry Jenkins, of the parish of Bolton, Yorkshire, followed a humble, laborious vocation for 140 years, and lived to be 169. The next oldest man in England was Thomas Parr (Pan), who lived during the reigns of ten sovereigns. He was a farmer, which vocation he followed for 130 years. He lived from 1483 to 1635, or 152 years. His second marriage took place when he was 120 years old. The offspring of this marriage was a son who lived 110 years; and this son had a son who reached 127 years of age.

The oldest living woman of which we have any record is probably Mrs. Nancy Hallifield, of North Carolina, who has lived 121 years.

An interesting event took place in Hungary in 1894, when Jean Szathmary and his wife celebrated their century of married life.

There seems to be no room to discredit any of these remarkable instances of longevity, as they are all vouched for by reliable authority.

The noticeable fact which constantly strikes one in making a study of the habits of centenarians is the simple, natural life followed by persons who have attained great age. Almost without exception these persons have lived much out of doors. As a rule they have been common laborers or farmers. The women have been persons in lowly circumstances, requiring active physical

habits. This fact suggests the out-of-door life as a health factor.

Mrs. Elizabeth Stalker, Aged One Hundred and One Years, Altoona, Pa.

One of the most remarkable women living in the Keystone State is sweet-faced Grandma Stalker of Altoona.

GRANDMA ELIZABETH STALKER.

She takes a keen interest in all the affairs of life, and often actively assists in the duties of her household. Her robust health gives promise of many more years of life for her.

Mrs. Stalker is a member of the Presbyterian church of Williamsburg, and a regular attendant, walking a distance of two squares twice each Sunday. She enjoys the best of health, and her mind is as bright as that of a woman of fifty.

Miss Catherine Isenhood, Aged One Hundred and Six Years, Wilkinsburg, Pa.

Miss Isenhood was born in Erie County, New York, in 1795, and at an early age started west with her parents. The trip across the wild State of Pennsylvania was, at that time, a perilous one, and when the family reached the junction of the Allegheny and Monongahela rivers, where Pittsburg now is, the little girl was left with some friends, to be sent for when the new home was established. This was the last she ever heard of her parents, and it was never known whether they were killed by Indians or met their death in some other way.

"Kittie" was an interesting figure, and was the recipient of much attention. She could often be induced to talk of the scenes she had witnessed in her early days, and told of the Indian trail she came over to Pittsburg. The trail since then has become Penn Avenue, one of the principal thoroughfares in Pittsburg.

The old lady had a wonderfully retentive memory, and one of her earliest recollections is the death of General Washington. Although at that time she was scarcely five years of age, she could distinctly remember when the news of the death of Washington was brought to Pittsburg by the men who carried the mail over the mountains on horseback. She could talk intelligently on the wars of 1812, the Mexican, and Civil, and during the war with Spain she displayed great interest.

For the past fifteen years Miss Isenhood was unable to move about unaided, and during that time she was also blind. Her affliction did not in any way affect her sunny disposition, and to the end she retained a happy demeanor, and had a pleasant word to say to everybody.

Prior to her blindness her delight was the raising of cats. During the years in which she was able to move about she was continually surrounded by a number of cats of all sizes. From this fact she received the name "Kittie."

Her mode of life was simple and active. She never ate luxurious foods, and never ate too much. She was never

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John H. Reed, Aged One Hundred and Two Years, Decatur, Ind.

Glancing at the accompanying picture, one would not think that John H. Reed was a day more than sixty-five years old, although he was that age when he enlisted in the 124th Ohio Regiment at Cleveland. Mr. Reed was born in Vermont, came west, and settled in Cleveland, Ohio. He lived there for twenty-five years, following the plasterer's trade, and at the outbreak of the Civil War he enlisted and followed the flag, fighting at Missionary Ridge, Lookout Mountain, and in many other battles. He was under Sherman until he started for Georgia; then he was stationed in Tennessee until the close of the war. During the last thirty years he has resided in Decatur. He is hale and hearty, and frequently walks the four miles between Decatur and the home of one of his sons in the country. The accompanying picture was taken the day he was one hundred years old. Mr. Reed has always led a very active, out-of-door life.

JOHN H. REED.

TO BE REMEMBERED.

The highest glory in any world is the glory of service.

Time is too valuable to be spilled like water on the ground.

The goodness in us impresses those around us for their good, since good is always stronger than evil.

Nobody is ever really practical who has not an ideal before her. You must see before you can plan or do.

Not one woman nor one man in a hundred could stand the strain to which the children in our public schools are subjected.—*Ladies' Home Journal.*

The Effect of Small Quantities of Alcohol on Mental Operations.

One of the most important of the recent findings of science is the effect of alcohol on the brain and mental operations.

Dr. Franz Schönenberger, of Bremen, Germany, said in a recent number of an educational paper: —

"Science has established that alcohol destroys first and most those parts which are most delicate and most recently developed. These are those wonderfully delicate brain cells upon whose proper formation the difference between men and beasts chiefly depends. These delicate structures are undeveloped in the very young child, or are only just beginning to unfold. The child is at first, therefore, deficient in speech, reasoning power, intellection, judgment, and all the higher moral sensibilities which govern our thinking, feeling, and willing. How the drunkard, by paralyzing these brain structures, can sink to the level of the animal, and lower, is well known. Whoever, then, gives wine and beer to a child injures these delicate structures in their formation, and thoughtlessness, flightiness, passion, coarse sensuality, and all base characteristics attain domination."

Prof. Victor Horsley, an eminent brain specialist and surgeon, Professor of Chirurgy in the University of London, in a recent lecture referring to experiments by Dr. Emil Kræpelin, Professor of Psychiatry in the University of Heidelberg, said: —

"The time occupied by the nervous system in observing and recording the simplest thing is called 'the reaction time,' and is so appreciable that in all minute and accurate records astronomers have to measure their reaction period, and to account for it. This plan in all forms and varieties has been very largely employed by Professor Kræpelin, whose investigations have been so thorough and complete that they explain the somewhat contradictory results obtained by other observers, and have established on a thoroughly scientific basis the direct influence of alcohol on the higher centers of the brain. The effect is that very speedily after taking the dose of alcohol the reaction time is shortened; but this shortening, that is to say, this apparent quickening of the cerebral act, lasts only a few minutes, and then marked slowing sets in, and for the rest of the time during which the alcohol acts, varying from two to four hours, according to the individual, the cerebral activity is diminished. The diminution is shown by a noteworthy lengthening of the reaction period; in other words, it takes longer for a person who has had a small quantity of alcohol, to think.

"A further method employed by Kræpelin was to estimate the ability with which the addition of simple numbers is carried out, and also the learning by memory of twelve places of figures; and in all these tests the slowing of intellectual vigor is shown. In regard to the occasional acceleration observed at the commencement in some experiments, Kræpelin made the remarkable observation that during this period of acceleration, that is, during the first few minutes after taking a dose of alcohol, he had the impression that it was much easier to learn figures, but when he came to examine the records he found that so far from having achieved his intellectual task more easily, it had, as a matter of fact, been accomplished more slowly. This observation was confirmed also by two other investigators in the

same laboratory, on whom a similar experiment was performed. This was a striking instance of the deceptive effects of alcohol on the higher intellectual centers of the brain."

Dr. T. D. Crothers, Professor of the Diseases of the Brain and Nervous System in the New York School of Clinical Medicine, says in regard to the effects of alcohol on mental operations: —

"The rapidity of thought and time reaction is another test showing the mental activities. By the aid of a battery and clock work marking parts of a second, the time can be measured from the moment the eye perceives an object to its registration on a dial by the pressure of a button. This in hundredths or tenths of a second shows the time of the passage of thought. This in almost endless varieties can be used to show the quickness of sense and thought impression, and to state them in figures. Thus, the time in health for the registration of sense impressions is three tenths of a second. After the use of two ounces of spirits, eight tenths of a second or more is required.

"If the time to express a thought thrown upon a canvas and registered by pressing a button be seven tenths of a second, after using spirits it will be increased to double the time. Contrary to the common impression, the rapidity of thought and the time to express it is slowed up always after the use of alcohol. This can be measured with accuracy and precision."

In the recent calorimeter experiments with alcohol at Middletown, Conn., the subject was given two and a half ounces of alcohol a day, but not all in one dose, for fear of disturbance of the nervous system. The two and a half ounces were divided into six equal parts, which would be 11.81 grams, or one and seven-eighths teaspoonfuls, to a dose. From this it was said that there were no *apparent* injurious effects, but no record is given of any tests that were applied proportionate in delicacy to the smallness of the dose.

The foregoing quotations show that doses smaller than those used by Professor Atwater have been found to weaken the power of concentrated attention and other forms of mental operations.

The findings of the above investigations prove the deductions made from the Middletown experiments to be erroneous, and that the text-books are keeping pace with the progress of science in teaching that alcohol is a brain poison. — *The New Century Study of the Alcohol Question.*

RESOLVE.

To keep my health.
To do my work.
To live.
To see to it I grow and gain and give.
Never to look behind me for an hour.
To wait in weakness and to walk in power,
But always fronting forward to the light,
Always and always facing toward the right.
Robbed, starved, defeated, fallen, wide astray —
On, with what strength I have,
Back to the way.

—Charlotte Perkins Stetson.

The American Pie.

Kate Masterson, in the *New York Times,* tells us that Americanism and the pie have so long been associated that their union has been accepted as inseparable.

"Of late there has been a concerted attempt upon the part of otherwise intelligent literateurs to introduce a school of pie literature, with the evident purpose of bringing about a pie revival.

"All true patriots should oppose the movement.

"Pie really is an American evil, one from which as a nation we are now happily emerging. Pie, placed where it belongs, in the list of desserts, is lacking in all the elements that should go to make it desirable.

"It is not only notoriously unhealthful, but it lacks all those distinctions which should mark all foods — especially the dessert.

"Persons fond of pie have a way of classing it as a diet rather than a dessert. This comes from the custom in certain sections of the country, notably the East and up-State villages and towns, where old-fashioned housewives still serve pie at every meal, and also offer it as refreshment to the occasional visitor.

"Pie, however, cannot be taken seriously as a food. Of course, no dessert should be serious, for that matter, but it ought to be palatable, piquant, delicate, and possessed of the psychic suggestion which is part of all properly composed dishes.

"This is only one of the simpler ideas which will serve to illustrate what an up-to-date dessert should be. You cannot class pie in this category, nor can you even allow it the charm of fresh fruit unadorned which suggests nature and simplicity.

"But the pie is too ornate and pretentious. If there could be such a thing as a crustless pie it might be considered and regenerated in some way, but as it is, it must be classed with the unmoral foods.

"The unmoral foods are those possessing admittedly injurious qualities. There is a long list of such dishes. Some of them are eaten with immunity by those having sufficient strength, both physical and mental, to resist their influences.

"There are some who endeavor to associate sentiment with pie — the pie of boyhood, the pie that mother made, and so on. But pie is pie. It is what it is just as war is war — cruel no matter in how worthy a cause it may be waged.

"Memories may cling to pie, just as they do to turpentine, paint, cigar smoke, and other things that do not in themselves possess the requisite qualifications for sentiment. The writer knows a lady who invariably bursts into tears if she perceives the odor of a cigarette. Certainly it is not the cigarette that causes her sorrow, but the memory it invokes.

"We have to consider pie as dessert, and as such it is impossible. It is heavy, harsh, loud, and terrible, looked at artistically. The finish of a well-constructed dinner should suggest optimism, poetry, and joy. None of these lurks in pie.

"It is an admitted fact that pie eaters are all dyspeptics. Dyspepsia is more common in the country districts than elsewhere, for the reason that farmers still cling to pie and extol it. Farmers' wives dose themselves with patent nostrums for all sorts of ills, when the original cause is pie.

"A pie renaissance would be worse than a revolution. It would mean an epidemic of digestive troubles, it would kill all appreciation of art in the minds of the young, and it would bring about a physical degeneration easily recognized in the form and features. Pie-faced is an eloquent adjective in its compounding. You cannot get rid of the hard facts that constitute pie.

"The ingredients of the crust — the airy, flaky crust — are flour and lard. A great deal of the unpleasant fat is necessary to produce the feathery effect which pleases the eye and the palate only — a crude sort of enjoyment that does not reach the brain.

"Every pamphlet that accompanies a remedy of a pill sounds its first warning note when it says: 'Avoid pie and pastry!'

"In cities, pies have their largest sale in the cheap bakeries and lunch rooms, where so many busy people obtain their midday meal. In the dairy restaurants the pie-and-milk man may be picked out as easily as the free-lunch-fed Bowery boy; one is tepid, and the other is tough.

"Pie eaters at a lunch counter are as hysterical and unmannerly as women at a bargain sale. They mass themselves and wedge solidly toward their magnet. These lunchroom pies are made by the hundreds by manufacturing concerns, and each one is branded on the under crust with a mystic symbol — a secret sign that binds the pie fiends in a band like a grip.

"The effects of pie are like those of every other injurious food, insidious. Only the student of food influences can spot the pie eater in his first stages when he is at rest.

"The hardened pie eater becomes art blind. Nothing makes him glow or warms him to any enthusiasm but his chosen food. If he could take it hypodermically during business hours he would do so. The pie capsule would cheer him during his strenuous hours, giving him fire and inspiration.

"No great man was ever fond of pie. No important work was ever consummated on a pie diet. Pie is a clog on the spirit and a ball and chain on the imagination. There is a legend of a famous musician who composed his best works with a dish of decayed apples on his table. But there is yet to be told the story of an artist who found his incentive in pie."

That man may last, but never lives,
Who much receives, but nothing gives.
—*Thomas Gibbons.*

GIVING THANKS.

What a Vegetarian Family Gave Thanks for on Last Thanksgiving Day; by G. G. Heid, St. Louis, Mo. Read at a Vegetarian Dinner in Frankford, Phila.

We thank thee, kind Father of mercy and love,
For the gifts which thy bounty bestows,
For sending us plenty, yea! more than enough!
As this table before us well shows.

We thank thee, kind Father, for fruits nice and sweet,
Such as oranges, apples, and grapes,
Pears, figs, and bananas, which tempt us to eat,
By their beautiful colors and shapes.

We thank thee, kind Father, that thou hast bestowed
These great blessings which gladden our sight;
This table, here bearing its luscious load,
Which is filling our minds with delight.

We thank thee, kind Father, that all we here find,
Is procured from the orchard and field;
These savory dishes of every kind
Many gardens abundantly yield.

We thank thee, kind Father, that this to prepare
Not a drop of blood had to be spilled;
No beasts of the field, fish, nor birds of the air,
Not an animal had to be killed.

We thank thee for health, which we daily enjoy,
Since we're living on nuts, fruit, and grain;
For happiness since we this method employ,
For we feel it has brought us great gain.

We thank thee, kind Father, for giving us strength
Without living on animal food;
And that we have found true contentment at length,
And rejoice in a satisfied mood.

We thank thee, and hope thou wilt lead many more
To dispense with subsisting on meat,
To find what great blessings this life has in store
For those who take care what they eat.

Children and Sleep.

A French doctor says on this subject: The need of sleep in infancy varies with the age of the child. At birth, and during the early months, the nursling sleeps and suckles only. At the end of the first month it begins to remain awake for short periods, gradually increasing in duration. Up to three years or thereabouts, the custom of a daily siesta after going out should be maintained. Up to ten or twelve years, the hours of sleep exceed the waking hours. The sleeping time necessarily decreases as the age advances, according to Bergeron and d'Heilly, in the following ratio: Up to seven years, from ten to ten and a half hours; ten years, from nine and a half to ten hours; twelve years, nine hours; fourteen years, eight and a half hours. After that age the division of the day into three eight-hour periods becomes good.

The midday siesta, except in southern countries, is no longer to be allowed. Whatever theory of sleep is held, it is none the less incumbent on the hygienist to see that the organism has an imperative physiological need of this repair of forces. Observation shows us the duration, the hygienist prescribes the measures necessary to insure this sleep. The infant, even when very young, should be habituated to sleep at night naturally. To rock and to sing to it are evil measures. Rocking children must be prohibited as conveying to the brain a vibration which is not without danger. Singing is at least inconvenient, if it does not render every one that child's slave. Care must be taken to prevent the contracting of other bad habits also, such as sucking its thumb.

To insure sleep to the child, the following rules should be observed: —

1. The child should always be put to bed at the same hour.

2. Relative quiet and darkness are requisite in the child's room; relative only, since it is necessary that the child should sleep in spite of the presence of other people who are not making much noise. A strong light should not be allowed to fall directly upon the face of the child.

3. The temperature of the room should be moderate, since excess of either heat or cold is hurtful, though less so if the child is well protected.

4. Aëration should not be inconveniently confined — there must be no curtains shutting off the air.

5. Waking should take place at nearly the same hour, or at least the child should not be so aroused as to cause any great variation from its habitual time of repose. The sleep of young children should not be cut short under any pretext whatever, until it has overreached the usual time; but it is often requisite to allow an overplus of sleep, demanded in consequence of growth. Sleep and proper nourishment are the best repairers of over-fatigue, but this must not be allowed to induce a slothful habit, for excess of sleep retards general nutrition.

Be Patient with the Boys.

I have a profound respect for boys. Grimy, ragged, tousled boys in the street often attract me strangely. A boy is a man in the cocoon — you do not know what it is going to become — his life is big with possibilities. He may make or unmake kings, change boundary lines between states, write books that will mold characters, or invent machines that will revolutionize the commerce of the world. Every man was a boy — it seems strange, but it is really so. Wouldn't you like to turn Time backward, and see Abraham Lincoln at twelve, when he had never worn a pair

of boots — the lank, lean, yellow, hungry boy, hungry for love, hungry for learning, tramping off through the woods for twenty miles to borrow a book, and spelling it out, crouching before the glare of the burning logs?

Then there was the Corsican boy, one of a goodly brood, who weighed only fifty pounds when ten years old, who was thin and pale and perverse, and had tantrums, and had to be sent supperless to bed or locked in a dark closet because he wouldn't "mind!" Who would have thought that he would have mastered every phase of warfare at twenty-six, and when the exchequer of France was in dire confusion, would say, "The finances? I will arrange them."

Distinctly and vivdly I remember a squat, freckled boy who was born in the "Patch," and used to pick up coal along railroad tracks in Buffalo. A few months ago I had a motion to make before the Court of Appeals at Rochester. That boy from the "Patch" was the judge who wrote the opinion granting my petition.

Yesterday I rode horseback past a field where a boy was plowing. The lad's hair stuck out through the top of his hat, one suspender held his trousers in place, his form was bony and awkward, his bare legs and arms were brown and scratched and brier-scarred. He turned his horses just as I passed by, and from under the flapping brim of his hat he cast a quick glance out of dark, half-bashful eyes, and modestly returned my salute. When his back was turned, I took off my hat and sent a God-bless-you down the furrow after him.

Who knows? I may yet go to that boy to borrow money, or to hear him preach, or beg him to defend me in a lawsuit; or he may stand with pulse unmoved, bare of arm, in white apron, ready to do his duty, while the cone is placed over my face, and night and death comes creeping into my veins.

Be patient with the boys — you are dealing with soul-stuff — Destiny waits just around the corner.

Be patient with the boys! — *Elbert Hubbard, in the Philistine.*

DISCORD.

As o'er an untuned lyre I swept my hand
  And through my soul the jangling sounds were poured,
I thought I could a little understand
  Of God's great grief when heart-strings do not chord,
As bending from his throne, he singles out
A thrice-blest player, bids him strike the strings —
When lo, instead of concord, din of doubt,
  Babel of griefs, and cry of bitter things!

—Clarence Urmy, in Lippincott's Magazine.

The Hygiene of Sweeping.

Cleanliness is next to godliness; but what is cleanliness? Harmful dirt is not always that which is most evident to the eye. T. M. Johnson, writing in *Science and Industry*, reminds us of this fact, and thus discourses on the difference between real and false cleanliness: —

"A certain woman, weary, worn, and sad, spends most of her time stirring up the dust in her house, thus keeping the atmosphere of her home almost constantly charged with flocculent solid matter, to which germs may or may not be clinging. This part of her appointed task is known as sweeping and dusting, or 'cleaning house.' She takes a broom and works it vigorously over the carpet, displacing dust and dirt in three ways. Part of it works down through the interstices of the carpet, and remains there until the carpet is lifted, or, indeed, if the carpet is closely woven on the under side, the upper soft fabric

will become so thoroughly clogged with dust that nothing but a good beating or washing will remove it. Another part of the dirt, the larger particles, is swished with measured strokes to the point where the accumulation is gathered up or swept out after it has been separated from the finer particles. Most women take a delight in removing this part of the household dirt in a dust-pan, for it is visible, and, if allowed to remain long, would soon discolor the carpet. Many of them pick up a surprisingly large quantity, too, for they have the knack of *throwing* it forward, and thus pushing the least possible amount into the carpet. But some women, and I think it is safe to say *all* men, have the unhappy faculty of sweeping a dirty carpet without taking a teaspoonful of dirt from it; on the contrary, they rub it in. Men are particularly noted for 'rubbing it in.' The third part of the dirt distributed by the house-cleaner's broom is wafted upward in air-currents produced by the motion of the broom. This is the fine flocculent dust that is almost invisible in a dingy room, but is very noticeable in a well-lighted apartment."

The writer tells us that if the housewife is desirous of effectively removing dust and dirt from carpeted floors, the carpets must be taken up and shaken outdoors. Mats or rugs are the best floor-covering, because they are not tacked down and can be lifted easily. The floor should have close joints and an oil finish. Open joints in the floors are receptacles for dirt, and they cannot be cleaned out. The dust on the closely jointed oiled surface can easily be removed with a damp mop, and no dust will rise to vitiate the air or settle on the furnishings. The damp mop is also of service in cleaning an impervious floor, such as oilcloth, linoleum, oiled wood, rubber, flagstones, marble, tile, etc. Linoleum he considers a thoroughly hygienic floor covering, and especially desirable for kitchens, pantries, dining rooms, bathrooms, and halls and passages, particularly if there are children around. The best thing with which to sweep a carpet is a modern carpet-sweeper of approved make. This picks up most of the dirt, throws it into a receiving chamber inside the sweeper, and reduces the amount of floating dust to a minimum. Especially objectionable is the "despicable feather duster," which simply scatters the dust to other places of lodgment, instead of removing it.— *The Literary Digest.*

"If you catalogue your worries, and unload your mental bowlders,
You will find the great majority belong to other shoulders.
To reap 'effect' from neighbor's cause, is plainly very wrong,
Unwittingly you have taken what to you does not belong;
If you let the rays of light supreme these haunting shades dissolve,
Your mind released will float serene on the tidal wave of love."

MR. CHUNK (looking up from his paper).— "I wish these newspapers would be a little more explicit in their publication of the news. Here it says that old Totterly, who has been under the care of three physicians for a fortnight, is now out of danger."

Mrs. Chunk.— "Why, surely that is plain enough."

Mr. Chunk.— "Is it? How is the uninitiated reader to know whether the invalid is on the high road to recovery, or dead and out of the reach of the doctors?"

Meat Extracts.

The question of the nutritive value of meat extracts is one which has received considerable attention, and many articles have been written both in support of and against their value as nutrients. At the present time a great many eminent physiologists and others are justly condemning their use, some because of their being practically worthless as food, others because of their being manufactured from decomposing animal tissues.

An analysis of meat extracts will show that they contain very little, if any, food substance. The brand which has attained the greatest reputation contains no fat or gelatin or proteid, and is chiefly a solution of the extractives and salts of flesh. It contains about twenty-two per cent of water and seventy-eight per cent of solids.

A perusal of this analysis reveals the fact that as far as food substances are concerned, meat extracts have very little, if any, value. This being so, the query will naturally arise, To what are due the results seen after their administration? They are due to the exciting character of these extracts. Like other medicinal excitants, they are deceptive, the temporary excitation produced by them being the result of the liberation of energy which should have been reserved for the performance of the natural functions of the body. When the system is robbed of this reserve supply, there is an after-effect which leaves the organism in a more or less bankrupt condition; and the body, which seemed to be markedly improved under the temporary excitation, will sooner or later, unless material in the form of nutritious food elements is assimilated by it, succumb to the inroads of disease.

If meat extracts, when made from fresh meat, are so detrimental, what is to be said of those extracts manufactured from decomposing animal tissues? Concerning this phase of the subject we quote from the London *Lancet* as follows: —

"Recent revelations in regard to the filthy material from which meat extracts are, as it would appear, occasionally made, call for a system of vigorous control in regard to the meat-extract trade in general. Moreover, the present state of matters is exceedingly harsh upon the honest manufacturers who place upon the market wholesome extracts which serve as useful and valuable nutrients and stimulants. At present the protection afforded to the public in this regard is feeble in the extreme, but surely it cannot be difficult to devise an efficient scheme which shall make it impossible to place upon the market vile preparations called "meat extracts" which are made from putrid livers and offal. It might be thought impossible that such filthy material could be fabricated into a toothsome paste, but so it is, the use of deodorizers and subtile flavoring material having been placed at the disposal of the offal mongrels by the advances (alas, that it must be so confessed!) of chemical knowledge.

"According to certain cases that have been before the public during the last year, animal substances were actually to be employed in which the putrefactive process had made a fair start. Of course, cooking would destroy the most noxious germs, but their products, the poisonous ptomains, would remain. Indeed, if the poisonous ptomains were elaborated, they would be difficult to destroy. Their presence in an extract would cause very serious symptoms of poisoning. Gravies, soups, and stock, especially at hotels and restaurants, are for economic reasons often made up with meat extracts, and should these extracts of vile origin be used, little astonishment

could be expressed at the occurrence of obscure cases of poisoning.

"A system of control should be established by the State, and imported extracts and extracts made at home should be examined chemically and bacteriologically from time to time, while a vigorous watch should be maintained on the disposal of offal."—*Dr. Chas. E. Stewart, in Modern Medicine.*

City Meat Inspection.

Condemnations at Union Stock Yards for week ending December 6: Total, 55,325 pounds; beef, 19,750 pounds; pork, 23,975 pounds; sheep, 1,115 pounds; veal, 1,135 pounds. There was an increase in the number of hogs condemned on account of cholera; also, an increase in jaundice and pneumonia in sheep. Fully thirty per cent of the total condemnations were for tuberculosis in cattle and hogs, and two cases of caseous lymph adenitis in sheep were found.

For the week ending December 13: Total, 85,731 pounds; beef, 39,350 pounds; pork, 45,231 pounds; lamb, 860 pounds; veal, 290 pounds. Twice as many cattle were condemned during the week as in the previous week — chiefly on account of tuberculosis, but twenty per cent were condemned on account of actinimycosis, or "lumpy jaw."

There was also an increase in the number of cholera hogs condemned.

No man is born into the world whose work
Is not born with him; there is always work,
And tools to work withal, for those who will;
And blessed are the horny hands of toil!
The busy world shoves angrily aside
The man who stands with arms akimbo set,
Until occasion tells him what to do;
And he who waits to have his task marked out
Shall die and leave his errand unfulfilled.

—*James Russell Lowell.*

Man as a Destructive Agent.

In a long editorial in the *Journal of Medicine and Science,* Frank W. Searle, M. D., deplores the processes of destruction that are going on about us, and for which man is himself directly responsible. "Man," he says, "through his inherent birthright and by the great development of his mental and spiritual faculties, has become the head of the animal kingdom, the lord of creation, and the custodian of all the forms of life which are below him in the scale of being. This, indeed, is a great power placed in man's hands, but undoubtedly great responsibilities go with this high prerogative. If man is faithful to this great trust, if he conscientiously carries out his obligations to the lower forms of life, the well-being and prosperity of the human race is assured; but if conscious only of his power, and propelled only by his own selfish desires, he becomes unmindful of his responsibilities and recreant to his trust, the delicate balance which keeps Nature's laws in harmonious working is disturbed, and that punishment comes which she always inflicts upon those who break or disregard her rules. Man's conquering and utilizing the forces of Nature has brought immense benefits to the human race, but in thus increasing his wealth and happiness he must be mindful of his duty to sow as well as reap, to guard and protect, as well as destroy and utilize.

After drawing the lesson so often referred to of Rome's decay because of her life of ease and luxury, he sees evidences of the same enervation and degeneration in all the great nations of the present day. "Is there not some evidence," he asks, "that there are at work within the whole human family all over the earth, certain evil tendencies, dimly seen and hardly to be discovered, perhaps, but which, unchecked, will make

the world unfit for habitation, so that finally the human race will work out its own destruction?"

The writer then enumerates the ways in which man is destructive. First is in regard to the slaughter of the lower animals,— the "useless" slaughter, he terms it, of birds and other animals for sport or personal adornment, but we should also include those killed for food as well. It is estimated that millions of birds are killed annually for the adornment of hats alone. Statistics published by the New York Zoological Society show that "the average decrease in bird life in the whole country during the last fifteen years amounts to more than forty-six per cent; that is, there are only about one half as many birds in the United States as there were fifteen years ago."

Consequent upon this decrease in birds, he mentions the increase of insect pests, which ravage our fields and vineyards, and leave bankrupt the farmer who should, through his productions from the soil, be the mainstay of the nation's prosperity. "Naturalists have been telling us for years that the human species cannot continue to exist if birds become extinct; and yet the wanton destruction of birds has gone on from year to year, until many species are already extinct, and many others are fast approaching extinction."

The migration from country to city is deplored for a number of reasons, one of which is the lessened amount of plant production. Fewer animals mean less pasturage, and a less vigorous growth of what there is, because of the smaller amount of animal excreta to fertilize and enrich it. The writer favors the collecting and returning to the soil of the sewage of cities, instead of conducting it into the lakes and rivers.

"Another evil tendency which is driving the human race to its ruin is the wholesale destruction of forests. Tracts of denuded trees become wastes, fatal to all animal life, and unfit for agriculture or grazing. Treeless countries are favored with a smaller rainfall, and when the rain does come, the ground not being covered by dead leaves and branches, which act as a sponge-like filter, retaining the moisture until it can percolate slowly into the soil, all the rain water quickly runs off into the rivers, and is borne rapidly to the sea, and but little benefit results to the soil."

"Nor even yet has the worst been told; for one of the great dangers which the vegetable kingdom wards off from the human family has not been considered. Every creature which inhabits the land or waters of the earth breathes oxygen and exhales carbon dioxide, and without oxygen none can sustain life.

"Now, where does the oxygen, with which the air is filled, come from, and how is the supply kept constant? In seeking an answer to this question, we come upon another proof of the statement that all life is interdependent, for we find that plants are the agents that keep up the supply of oxygen in the air and water, and that every tree which adorns and beautifies the earth is a great and essential benefactor to the whole animal kingdom, because it is a never-ceasing generator of life-sustaining oxygen. Plants inhale carbon dioxide, a gas which is irrespirable for human beings, and exhale oxygen, which is the breath of life to man. Thus plants are a positive good to humanity in that they furnish a constant supply of oxygen for man to breathe, and a negative good, in that they remove the irrespirable carbon dioxide, which would be fatal to all animal life."

"In maintaining a proper equilibrium of the balance between these two vital

processes lies the health and happiness and even the very life of the human family. How can this balance be maintained unless the planting of trees shall become so universal that it shall offset the fearful destruction of the forests, which, in obedience to the demands of civilization and of money greed, is going on year after year all about us?

"For many years scientists the world over have raised a warning voice, insisting that something must be done to protect our forests and to insure the renewal of the trees when cut off. Lord Kelvin, one of the ablest scientists of Europe, has declared, in a recent address, that if the wholesale destruction of forests goes on at the present rate, in about four hundred years the world will become unfit for human habitation by reason of a lack of oxygen.

"The lesson which Nature teaches is that all life is sacred. No matter how humble the creature, he has a place and a work in a great economy of Nature. Not alone is all life sacred, but all life is interdependent. True it is, that no man can live unto himself alone. If man has risen to a high estate in which he has become the custodian of all the lower animals and plants, then with his elevation he has incurred a great responsibility, and must conscientiously fulfill his trust, for the well-being of mankind has been indissolubly linked with the well-being of all God's creatures. Their life is his life; their extermination is his extermination. Sublime as is the Christian idea of the great brotherhood of man, even this is not enough, for the principle of brotherly love must be extended until it shall cover as a protecting shield all our lowly brethren — the plants and animals."

"Health is the vital principle of bliss."
— *Thomson.*

For only the Master shall praise us
And only the Master shall blame.
And no one shall work for money.
And no one shall work for fame.

But each for the joy of the working,
And each in his separate star,
Shall paint the thing as he sees it,
For the God of things as they are."

—*Kipling.*

Be Considerate with the Children.

A child enjoys himself more heartily, when he does enjoy himself, than an older person does. That everybody admits. A child suffers at heart more keenly, when he does suffer at heart, than does an older person. *That* is not recognized by everybody. A child's power of enjoyment is made a proverb. A child's power of mental suffering is hardly thought of by the world generally. . . . Yet, as a matter of fact, and as a matter of course, a child's intenser sensitiveness gives it the same added power of suffering as of enjoyment; and the little ones about us have a harder time of it in the days of their childhood than we know anything about — save as we remember our childhood, and retain more or less of its freshness in our maturer years. We say that we "take things more philosophically as we grow older," which is only another way of saying that we grow tougher-hearted. But even if this be the case with ourselves, let us remember that the little ones who lack our measure of philosophy deserve, therefore, a larger share of our sympathy. It is good to have the light-heartedness of a child. It is hard to have the heart-racking sorrows of a child. Children deserve our love, and they need our pity. Moreover, because children are so sensitive, they demand considerateness of treatment from us all. It is a cruel thing to disregard a child's feelings.— *S. S. Times.*

OUR TASK.

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

—*Lizette Woodworth Reese.*

The Baby.

I would like to urge doctors to pay more attention to the eyes of the new-born, not only to cleanse them carefully, but to see that the nurse does not take them into a strong light.

In my last fifty cases of confinement, I have been careful to instruct the nurse to keep the room darkened. I find that the babies sleep better, are better natured, and consequently grow and develop better.

The following facts and theories have given rise to the above conclusions:—

The baby's eyes have never had the stimulation of light. No wonder it winks and blinks when the first rays of light strike the retina. It is painful, as we know from experience, for a brilliant light to strike the eyes, after they have been in darkness. We know that a bright light will cause a conjunctivitis, even in grown people. It will also cause headache, and I have also seen cases of indigestion caused by excessive use of the eyes. Now can we blame the baby for crying when we keep it in the light? Its eyes hurt, its head aches, and possibly this causes the chronic eye trouble that is not recognized till years after. Specialists, in examining the eyes of school children, tell that more children at the present time suffer from various forms of eye trouble, than of preceding generations. True, we have electric lights, gas lights, and various forms of kerosene lamps, all making bright lights; also the children read and study more now than they did in previous times; but it would not be saying too much to blame some of their eye trouble to the bright light of the confinement room. The untutored savage takes special care to protect the eyes of the newborn.

The candle and small windows of the olden times were better for the eyes of the child than the brilliant electric lights and bay windows of the present.

Again, let me urge doctors to protect the eyes of the new-born babe, and said babies will be better in every way.

Again, I want to enter a protest against bathing the child immediately after birth. It matters not how warm the room is, when the child is washed; it shivers and shakes. It comes from a temperature of one hundred degrees suddenly into a room of a temperature possibly about seventy degrees, a sudden fall of thirty degrees. Then the nurse washes it, tending to lower its temperature more. Would it not be more sensible to wipe the baby dry and oil it, protecting the body and adding heat to it?

The immediate bathing of the child is the source of much trouble. Wait twenty-four hours. Give the little one time to adapt itself to ordinary temperatures before you give the bath.—*J. W. Coleman, in Surgical Clinic.*

WHAT a piece of work is man;
How noble in reason; how infinite in faculty;
In form and moving, how express and admirable;
In action, how like an angel; in apprehension,
How like a God!
The beauty of the world, the paragon of animals,
What is this quintessence of dust?

Hamlet.

Physiological Effects of Tobacco.

As far as the alimentary tract is concerned there is a decided stimulation of the flow of peptic fluids. For this reason tobacco has been recommended as a sort

of gastric stimulant after eating, and it undoubtedly acts in this particular way. If this be true, however, the ordinary use of the drug must be extremely destructive to the digestive process. We have all chewed gum before dinner until, when we came to eat and tried to chew dry food, there was no saliva to mix with it, and we ate with discomfort. In this case exactly the same thing has happened to the salivary glands that would happen to the peptic glands if one were to smoke before meals during the period of rest for the stomach, for the gastric glands would be depleted, the fluids poured forth into the stomach under the stimulation, not being retained in that organ by food to be digested, would pass on into the intestinal tract, and when food was finally taken, the peptic cells would be unable to pour forth adequate solvents for the proteid mass, and digestion would be delayed until such solvents could be formed by cellular metabolism.

Meanwhile the food would be retained in the stomach in a warm and moist condition, favorable for the development of decomposition germs, which must always be present in the food we eat. The result of the decomposition process is the production of acids that are extremely irritating, and cause the discomforts that are so familiar to the dyspeptic. Not only has the food been manufactured into chemicals hostile to the organism, but as far as future nutrition is concerned, it is actually lost, for the physiological cost of reducing these decomposition products to available forms for absorption and use is more than the available heat that can finally be produced in their oxidation.

Regarding glandular activity, it may be said that nicotine stimulates secretion in general, as is illustrated by the influence upon the mucous glands of the mouth and general alimentary tract. This overstimulation of the mucous area would naturally lead to the development of catarrhal affections, and it would seem that this drug was contraindicated in all forms of tendency to catarrhal diseases. This must mean, if the popular estimate of the condition of the New England nose is correct, that few Yankees, at least, should use tobacco. — *Prof. J. W. Seaver, M. D., in Med. Exam. and Practitioner.*

The Greater Intemperance.

We talk about temperance as though abstinence from alcohol were the fulfillment of the law, but there is a greater temperance yet to come, more in accordance with the dictates of an enlightened reason. There is more than one kind of intemperance. The sin of overeating produces as much trouble to the community as that which comes from the use of alcoholic drinks, and perhaps more. The use of tobacco is the occasion of harm second only to that of alcohol. The evil wrought by the excessive use of coffee is by no means one of the minor ones. It has been stated that the baneful effects of the coffee habit in Brazil are equal to those of the beer habit among the Germans. The use of opium and other narcotics is another fruitful source of injury to the community. The evils of overwork and worry do not fall far behind. In fact, we exhaust ourselves every way: in our work and in our play; in eating and drinking; and even in those athletic efforts that are supposed to be hygienic and recuperative. They are all made too intense, and therefore we do not live out more than half our days, and that half we do not live either comfortably or with that fullness and richness of life which we might. Furthermore, these very excesses are the occasion of much of the

demand for alcohol, to drown the nervous rebellion that would otherwise shield us from the result of our own foolishness. In confirmation of this, look at the immense amount of disease that runs riot through our land.— *Charles H. Shepard, M. D.*

Paste for Removing Blackheads.

The application at night of a paste composed of the following ingredients is recommended by dermatologists: —

Precipitated sulphur	1 dram.
Green soap	1 dram.
Precipitated chalk	1½ drams.
Zinc ointment	1 ounce.

After keeping the skin well covered with this during the night, most of the blackheads may be washed out in the morning.

Another paste, which has been used with good results, is the formula of Professor Una, the eminent German dermatologist. It has the following composition: —

Kaolin	4 parts.
Glycerin	3 parts.
Acetic acid	2 parts.

Apply in the same manner as directed in the preceding formula.— *American Druggist.*

"It is one's first duty to be healthy; if you are healthy, you should be happy."

Pulmonary Tuberculosis.

Dr. J. M. French contributes to a recent *Medical Examiner* the following very practical remarks about an increasingly fatal malady:—

"At least four classes of employment have a tendency to favor the development of tuberculosis: —

"1. Sedentary employments in ill-ventilated apartments, typified by the so-called sweat shops for the manufacture of various articles of clothing.

"2. Employments which necessitate the inhalation of irritating dust and noxious vapors, such as those of stonecutters, bleachers, matchmakers, needlemakers, file cutters, grinders, and engravers.

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

"4. Employments which involve undue familiarity with intoxicants. These are those connected with the manufacture and sale of wine, beer, and various classes of alcoholics.

"The principal measures of prevention now recommended are: —

"1. The proper disposal of tuberculous sputum.

"2. Control of milk and meat supplies.

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

"4. Sanitaria and hospitals for consumptives.

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

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

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

"8. An abundance of sound and wholesome food.

"9. Personal cleanliness and public hygiene.

"10. Isolation and disinfection of consumptives."

The daily cold bath properly taken is one of the best of all means of preventing this dread disease. The cold bath acts by building up the vital resistance. The bath should be taken intelligently. It should be very short; one-half minute to two minutes. It should be followed by a vigorous rub and exercise. Take care that there is a good reaction. If the hands and feet are cold, or the head aches, the bath was too long or not enough exercise has been taken after the bath.

The only way to prevent consumption is to live above it.— *Ed.*

EDITORIAL.

THE NUTRITIVE VALUE OF MEATS.

THOUSANDS of persons are laboring under the delusion that flesh foods are more nourishing than other food stuffs. A glance at any reliable table of nutrition is sufficient, however, to dispel this notion. Meats contain practically only two of the three great essential food elements, namely, proteids or nitrogenous elements, and fats. The carbohydrates represented by starch and sugar which constitute four fifths of the normal dietary are practically lacking in meat.

A person cannot live for any length of time on an exclusive meat diet without suffering a great depreciation in health. Even a dog or a cat becomes sick when fed exclusively on meat. Carbohydrates, that is starch and sugar, are absolutely required for the proper nutrition of human beings and most other animals as well. Meats are found by the best authorities to contain nineteen per cent to twenty-one per cent of proteid, or about one fifth of the total weight. Ordinary beefsteak contains in addition about five per cent of fat.

There are several good vegetable productions which are much richer in proteids than meat. This fact seems to be much less generally known than it ought to be, as the majority of those who eat meat seem to think that flesh food is practically the only source for this particular sort of nutritive material of which meat consists. It would be a revelation to such persons to know that a pound of beans contains as much proteids as one and one half pounds of meat. The soldier bean and the cow pea contain, in fact, nearly double the amount of proteid found in beefsteak. Nuts also are much richer than beefsteak in proteids and contain ten times as much fat. The almond, for example, contains about fifty per cent of fat and twenty-four per cent of proteid, having a nutritive value equal to nearly four pounds of beefsteak. Hazelnuts are still richer in fats, while containing about the same amount of proteid. Half a pound of nuts is much more than a substitute for a pound of beefsteak. Even the peanut is richer in food elements than is beefsteak, containing far more proteids and several times as much fat besides valuable carbohydrates. A pocketful of peanuts which one could buy for a nickel will communicate to the body more heat and energy if eaten slowly with proper mastication than a pound of beefsteak at a cost of twenty-five or thirty cents.

Another fact of importance which is generally overlooked is, that the proteids of meat consists in large part of waste substances of which urea, uric acid, and similar substances, destined to be carried off through the kidneys, compose the essential part. If these are carefully washed out from a portion of flesh and taken for analysis the meat will be found to have lost about fifteen per cent, or more than one seventh of its solid constituents. This amounts to a deduction of about three per cent, bringing the total value of the proteids of meat fourteen to eighteen per cent, or scarcely half that of the better varieties of peas, beans, and nuts.

Still another fact of importance which should be considered is, that proteids in the form of meats is difficult of digestion. Recent experiments have shown that not more than seventy-five per cent of the proteids found in ordinary beefsteak are digested, the remainder being left to undergo decomposition or putrefaction in the colon, the evident cause of the extremely disgusting character of the feces of carnivorous animals and human beings when subsisting upon a flesh diet. The reason for this is that flesh consists of structural proteids; that is, proteids or albumin which has been built up into tissue.

In peas, beans, lentils, nuts, and other vegetable products the albumin or proteids is found, not in a structural form, but stored in the form the best possibly adapted for digestion. For example, in meat the proteids are found in the form of muscular fiber. Each little fiber is surrounded by a tough wall of tissue so that each fiber may be in a way regarded as a tube with pulpy contents. The muscular fibers are held together by tough connective tissue which is very fibrous and difficult of solution by the digestive fluids. The presence of these tough and indigestible substances is demonstrated by scraping beefsteak with a knife. The pulpy, digestible portion may be scraped out, leaving the fibrous portion behind. An attempt to chew this fibrous residue will at once show its true character. The stomach, after laboring for hours in ineffectual attempts to dissolve these fibrous portions, allows them to pass into the small intestines on their way to the colon, carrying with them a considerable portion of the digestible parts which, being surrounded by tough membranes, are inaccessible to the digestive fluids.

In cereals and legumes the proteids are presented in the form of minute particles and delicate films and threads which readily melt down under the action of the digestive juices. Many of the statements made with reference to the comparative indigestibility of vegetable proteids have been based upon false premises, no account having been taken of the waste which takes place through the kidneys when animal proteids are eaten. Uric acid and urea and other waste matter which constitutes about fifteen per cent or one seventh of the weight of flesh foods pass off through the kidneys without rendering the body any service, the effect being more or less detrimental as they add to the work of the liver and kidneys without increasing their ability to perform work. When this is taken into account the wide discrepancy which has formerly been supposed to exist between animal and vegetable proteids practically disappears. When, for example, proteids are taken in the form of the pure gluten biscuit or well-prepared purée of peas or beans, or almond cream or butter, they are more completely digested and absorbed than when taken in the form of flesh foods. Protose and breads produced from the proteids of cereals and nuts are practically absorbed *in toto* when well masticated. Experiments have also shown that such foods are digested in half the time of meat pulp.

From these facts it must be clearly apparent that the argument used so long, that flesh foods are necessary to sustain vigorous physical activity, is no longer tenable. We are able to assert without the slightest fear of refutation that the bodily energy and activity may be maintained upon a diet from which flesh is entirely eliminated if carefully selected. If to vegetable proteids we add the proteids of milk and eggs there remains no possible excuse for the use of meat by any one except in the absence of all food of any other sort.

THE CONDIMENT HABIT.

THOUSANDS of men and women are almost as much addicted to the use of pepper, salt, cayenne, mustard, and other hot stuffs as is the habitual toper to his toddy. The craving for palate-tickling condiments is easily acquired, but not so easily overcome.

Attention has recently been called to a class of persons who are known as condiment fiends, who have become familiar to many restaurant proprietors. A condiment fiend, when his appetite comes upon him, rushes into a restaurant, calls for a piece of pie or some other simple dish, and empties upon it the contents of the mustard or pepper cruet, the horse-radish jar, and the catsup bottle, then quickly bolts the combination. The restaurant managers soon recognize him, so he has to continually change his place of dining.

These unfortunates are usually addicted

to the use of stronger liquors. Sometimes they have gotten so far down the hill that alcohol no longer produces a sensation in their blistered palates. The writer once saw a person of this sort fill a wineglass with pepper-sauce, and quaff it down without a grimace.

Mustard, pepper, ginger, and condiments of all sorts are artificial stimulants, the appetite for which grows with cultivation. They are wholly unnecessary and altogether injurious. The essential oils to which they owe their flavors are rank poisons, and their use unquestionably leads to an appetite for alcohol and other stimulants and narcotics.

THE EMANCIPATION OF THE HORSE.

THE introduction of the electric trolley and the more recent invention of the automobile promises to emancipate the horse, to a great extent at least, from the burdens and cruelties to which it has long been subjected. In some of our large cities the number of horses to-day is estimated to be less than two thirds the number used twenty years ago. In London, Paris, and Vienna the horse population has decreased from six to ten per cent during the last few years through the introduction of the automobile. The elimination of the horse from the cities is a distinct sanitary advantage in the way of cleaner streets, and diminution of the number of house flies, the production of which is dependent upon stable litter.

PNEUMONIA.

THIS very grave disease, which is perhaps most common at this season, requires prompt and thorough-going treatment. The inflammation is commonly confined to one side, the location generally being indicated by pain in the affected part. It is not absolutely necessary, however, to know which lung or which portion of the lung may be the seat of the inflammatory process, for the treatment should be applied to the entire lungs.

The general treatment required is the following: For relief of pain apply a hot fomentation over the entire chest front and back for fifteen minutes, repeating every two or three hours, as may be necessary, to make the patient comfortable. On removing the fomentation, a cold compress should be applied to both the front and the back of the chest. The compress applied to the back should be allowed to remain until the next fomentation is applied, or until it becomes thoroughly heated. The compress applied to the front of the chest should be changed every fifteen minutes, or as soon as it becomes warm. The application of continuous cold is not wise, although the ice bag may be conveniently employed in mild cases. Continuous cold is injurious, for the reason that the nerves of the skin become benumbed, and thus the beneficial effects which are obtained through reflex action are prevented. The ice bag may be moved about, so as to allow reaction to take place, and thus the surface circulation and the activity of the nerves are maintained.

The general temperature may be best controlled by the wet-sheet pack, but this should not be employed as in typhoid fever, in which the sheet is removed as soon as it becomes warm, but the sheet should be allowed to remain a longer period of time, so that very thorough reaction may take place, filling the skin with blood. This is important as a precaution against incurring pulmonary congestion, which is sure to result from prolonged chilling of the general surface. Most excellent results follow the sweating pack when sweating can be produced by prolonging the application of the wet sheet. To promote reac-

tion after the application of the wet sheet, the patient's skin may be previously heated by a fomentation to the back of the trunk or by a general hot blanket pack. The cold enema may be used, if necessary, as an additional means of lowering temperature. The cold mitten friction or the cold towel rub should be employed two or three times a day to encourage vital resistance and promotes general circulation.

Fomentations generally exercise a favorable influence upon the cough. Sipping hot water is also an excellent measure for relieving cough.

The hot hip and leg pack is an excellent means of relieving the congestion of the lungs when this becomes extreme, as indicated by blueness of the lips and labored breathing. In such cases an ice bag should also be placed over the heart. Hot applications to the legs may be repeated as often as necessary, and the effect may be prolonged by the heating compress or pack applied to the legs.

As soon as the acute symptoms which accompany an attack of pneumonia begin to subside, a general heating compress should be employed, the cold compress being no longer necessary. The purpose now is not to lessen the inflammatory process, but to remove its results by promoting absorption. The square chest pack or the towel pack may be employed for this purpose. The pack should at first be changed every few hours, a fomentation being applied to the whole chest for ten or fifteen minutes at each change.

Insomnia and sometimes delirium are present in very severe cases. The wet-sheet pack generally relieves these symptoms in a most remarkable manner. This may be well illustrated by a single case which came under the writer's observation some years ago in Mexico. Pneumonia is very frequent in the dry, elevated interior of Mexico, as in other mountainous regions, and is exceedingly fatal. It is generally considered that when a man has been sick three days with pneumonia and has not shown symptoms of improvement, he is quite certain to die. The writer was called to see a patient who had been sick for more than a week, and whose case had been pronounced utterly hopeless by half a dozen other physicians. The poor patient was wildly delirious, having had no sleep for several days. He was so violently excited that several persons were required to keep him in bed. The wet-sheet pack was applied, and within a few minutes the patient became quiet, and soon after sank into a peaceful slumber, from which he awakened very greatly improved. After a longer sleep the patient became entirely rational, the temperature fell several degrees, and from that moment the patient made rapid and uninterrupted progress toward recovery. That he did not die was considered a miracle by all of his friends, and much excitement prevailed throughout the Mexican community when it was heard that the patient was out of danger and actually recovering.

ANSWERS TO CORRESPONDENTS.

Erysipelas — Cold Baths.— Mrs. A. A., Missouri: "1. Give effective remedy for erysipelas in face and eyes. 2. How can one become accustomed to cold baths without taking cold? 3. What should be the temperature of the bathroom?"

Ans.— 1. Acute erysipelas in the face requires the attention of a skilled physician. The ice cap may be employed to reduce the general temperature, if the fever is high. Cold applications consisting of cloths wrung out of water at 60°, should be applied over the inflamed parts, being changed before they become warm. When there is considerable pain, a fomentation may be applied for ten or fifteen minutes every two hours. This treatment should be employed for the first day or two, or until the pain and swelling have diminished. When the disease has ceased to extend, hot fomentations should be applied for ten or fifteen minutes three or four times a day, and the heating compress should be employed between. This is applied as follows: Fold a towel to two thicknesses. Wring quite dry out of cold water, lay over the affected parts, cover with mackintosh, then with flannel. Allow it to remain in position until the parts are thor-

oughly warmed by reaction. It is generally well to change the application as often as every two or three hours.

2. One does not take cold after a cold bath because the bath is cold, but despite it. Daily cold bathing is one of the best precautions a person can take against colds. If, after taking a cold bath or a bath of any kind, one is not careful to thoroughly dry the skin, chill is apt to occur by the evaporation of moisture from the skin after dressing, and thus cold may be taken. Neglect to secure good reaction, that is, thorough warming of the skin, after a cold bath may produce a wretched feeling which may lead one to think he has contracted a cold when he has not, the symptoms being rheumatic in character. Very cold bathing, especially in persons not accustomed to cold baths, may produce excessive reaction, which may often be accompanied by a slight fever, and so may be mistaken for a cold. After taking a cold bath a person should rub the surface of the body very thoroughly, and then take a walk or engage in some vigorous out-of-door exercise. Persons who are not accustomed to cold bathing should begin very cautiously, employing at first the method known as partial rubbing, in which a small part of the body, as an arm or a leg, is first rubbed, then rubbed until warm.

3. The temperature of the bathroom should be 70° to 75°, or a little warmer than the bath.

Hip Disease.— Mrs. S. P., Michigan, wishes outline of treatment for hip disease in boy ten years old.

Ans.— The boy should be put under the care of a reliable surgeon who has had experience in similar cases. Different stages of the disease require different treatment. In many cases rest in bed is necessary. A short, cold, rubbing bath of some sort should be administered twice daily. The application should be brief, the water quite cold. The best method is the cold mitten friction, shower bath, or cold wet-hand rub.

Normal Feces.— M. J., Maryland: "1. What is the normal color of feces? 2. What is indicated when feces are a greenish color? 3. Should they be odorless?"

Ans.— 1. Brownish color.

2. The presence of bile.

3. Yes, nearly so. Flesh foods, cheese, and eggs, when not perfectly digested, give rise to extremely offensive feces. The imperfectly digested particles of decomposing material which are deposited in the colon undergo putrefactive changes, which give rise to offensive gases and various poisonous substances. Mr. Horace Fletcher and others

have shown that very thorough chewing of the food so facilitates its digestion that there is very little residue, and the feces are almost without odor.

Athletic Training. — J. E. B., Indiana: "1. What exercises would you recommend for young man eighteen years old who wishes to train for an athletic meet? Expects to enter the races, 100-yard dash, running broad and high jumps, pole vaulting. 2. What time is required for a perfectly healthy man to get into good condition for such events? 3. What muscles are used in the "pole vault," "high jump," and "shoot put"? 4. Should one practice after school hours, or before? Why?"

Ans.— 1. Running and swimming are two most excellent exercises for an athletic young man. It is, of course, important to devote a large part of the exercise to the special features which ought to be undertaken.

2. At least two or three months.

3. The extensor muscles of the legs chiefly, but all the muscles of the body participate.

4. After school hours is a good time to practice, as the diversion of blood to the muscles is a good means of resting the brain.

Weak Stomach.— F. C., Ohio, wishes to know: 1. If, when the glands which secrete hydrochloric acid in the stomach are destroyed, they can be restored? 2. Are electricity and massage beneficial? 3. Prescribe treatment and diet.

Ans.— 1. No.

2. Yes.

3. Food which requires digestion in the stomach must be discarded. Only liquid foods should be taken, and this should be of a character which will readily pass on into the intestines, where it may come into contact with the pancreatic and other fluids, and thus undergo digestion. Glands which have been destroyed by disease cannot be restored. In many cases there still remain a few glands which have not been destroyed, and the activity of these may be developed to a remarkable degree.

Bladder Trouble.— Subscriber: "Had an acute attack of bladder trouble one year ago; suffered greatly. Attack recurred last June, and continues. Have constant desire to urinate and to avoid standing. Have taken every kind of treatment, sitz baths, electricity and massage, hot and cold applications; use lithia water freely, but take very little medicine. Health excellent, with this exception. Do you think this trouble lies in the uretha or bladder? Has it become incurable or chronic?"

Ans.— The patient should put himself in the hands of a competent specialist, preferably in a sanitarium, where every possible advantage may be afforded for proper treatment. Rest in bed, with proper treatment of the diseased bladder, would doubtless afford relief.

Sunstroke — Cracked Ice — Tonic Baths.— Mrs. H. T., Ohio: "1. Give temperature and time limit of water applications in case of sunstroke or heat exhaustion in two-year-old child. 2. Is cracked ice, carefully given, too cold for such a child's system during convalescence, when there is no fever and weather is oppressively warm? 3. What special tonic baths should be given child while convalescent, and what special hygienic precautions are necessary, in addition to general care?"

Ans.— Rub the patient vigorously, while pouring upon the head and spine water at a temperature of about 60°. Continue the rubbing until a good reaction is established, and the patient is restored to consciousness, which ought to be accomplished in from three to fifteen minutes.

2. No.

3. Cold towel rub or cold hand rub. The latter consists of rubbing the surface of the body with the hand dipped in cold water. Applications should be made to different parts of the body successively, each part being rubbed until red and in a state of good reaction, first with the wet hand, then with a dry towel. The cold towel rub is given thus: The towel is dipped in cold water, applied to the chest, an arm, the back, a leg, or some other part of equal area, with vigorous rubbing, until the towel is warm; then dry by rubbing the part with a dry towel, and finally with the bare hand. Each part should be treated until the surface is reddened, and good reaction is established before proceeding to another area.

Ruptured Blood Vessel — Swollen Veins — Lithia Water — Fats.— Mrs. E. L., Massachusetts: "1. What home treatment would you advise for ruptured blood vessel in lung? Any movement of arms produces hemorrhage. 2. Is there any hope of perfect cure? 3. What treatment should be given swollen and painful veins under the knee? 4. Is lithia water beneficial in case of inflammation of bladder? 5. Can you recommend any vegetable fats, outside of nut foods, which I can obtain here, for cooking purposes?"

Ans.— 1. Ice compress to the chest; fomentation between the shoulders; ice to the palms of the hands; hot packs to the legs.

2. Yes; hemorrhage from the lungs is rarely fatal, except in advanced cases of tuberculosis.

3. The patient should wear elastic stockings, or should apply an elastic bandage to the limb on rising in the morning.

4. Yes; but the same may be said of distilled water, or of any good ordinary sweet water. The lithia in so-called lithia water is not beneficial to any appreciable extent.

5. Olive oil is a form of vegetable fat which can be commended as preferable to animal fat, although to many persons the flavor is less agreeable than that of fresh dairy butter. From the standpoint of digestibility, fresh butter is perhaps as whole-

some as olive oil; but the latter has the advantage of being absolutely free from infection with the germs of typhoid fever, tuberculosis, and other parasitic diseases. The Sanitas Nut Food Company is prepared to supply nut fats in a very wholesome and toothsome form. We especially commend their cocoanut cream.

Diabetes Insipidus — Cold Baths — Water Drinking.— Mrs. L. B., Iowa: "1. Prescribe diet and treatment for case of diabetes insipidus and systemic catarrh. 2. Would you advise the continuance of cold sponge bath in morning, when reaction is not good, even after brisk rubbing? 3. What can be done to supply body with needed amount of water, when water drinking causes excessive micturition fifteen minutes afterward?"

Ans.— The gluten biscuit and gluten meals manufactured by the Battle Creek Sanitarium Food Company; protose, nuttolene, nut butters, and other nut preparations manufactured by the Sanitas Nut Food Company; potatoes, acid fruits, eggs, spinach, lettuce, nuts of all sorts, except chestnuts. The patient should take a great deal of exercise in the open air. Unless his strength is much reduced, he should walk from six to ten miles daily. A wet-hand rub or shallow bath at 60° should be taken twice daily. If the skin is dry, the cold bath should be preceded by a sweating bath of some sort for three to eight minutes. The moist abdominal girdle should be worn night and day.

2. The cold bath should be continued, but it should be administered in such a way as to secure good reaction. Reaction is promoted by exercise after the bath until the surface is well warmed. Exercise before the bath is also an aid to reaction. Use less water, and reduce the duration of the bath to a few seconds, six to ten seconds, gradually increasing the duration and the vigor of the bath, as the ability to react increases. Increased power of reaction is an evidence of increasing constitutional vigor.

3. Reduce the quantity of water taken at one time. Take a little and often, as, for example, one or two ounces of water every half hour, instead of several ounces at longer intervals.

Rheumatism — Fruit Diet.— B. C. D., Wisconsin: "Am troubled with dull, deep pain in left chest in region of heart. Pain sometimes shoots up into neck and down left arm. Use no meat, live on health foods, drink water freely between meals, and take daily cold baths. Prescribe treatment and diet. 2. Is there any danger of heart disease? 3. Would another climate be benefi-

cial? Where? 4. Would a course of sanitarium treatment prove beneficial? Where? 5. Do ripe fruits of all kinds form a good dietary in this case?"

Ans.— 1. There is probably a gastric irritation affecting the intercostal nerves. Apply a fomentation over the left side of the stomach at night, followed by a heating compress to be worn over night. The heating compress consists of a towel wrung out of cold water, covered, first with mackintosh, then with several thicknesses of flannel, so that the heat may be retained.

2. It is barely possible that there may be a nervous affection of the heart. This can be determined only by careful examination by a competent physician.

3. The case is one not likely to be particularly influenced by a change of climate.

4. Yes. A branch of the Battle Creek Sanitarium is located in Madison. There is another recently established branch in Milwaukee.

5. Yes.

Bad Taste.— W. K., Omaha, is troubled with bitter taste and thick, discolored saliva in mouth in morning. Tongue is brown far back into throat, and stomach is very sluggish and sore. Prescribe diet and treatment.

Ans.— It is very likely that you have a habit of sleeping with the mouth open. Cleanse the mouth thoroughly before each meal and at night before retiring, and be careful that the mouth breathing is suppressed, if it exists. Fomentations for ten to fifteen minutes before retiring, followed by a heating compress to be worn during the night, will be found beneficial. A cold bath on rising in the morning will improve the general health.

Spring Tonics.— Mrs. A. E. R., Wisconsin, wishes to know if roots, barks, and herbs are of benefit as spring tonics.

Ans.— No. Copious water drinking, the cold morning bath, and abundance of outdoor exercise are all the tonics needed.

Intestinal Hemorrhage — Ear Wax.— Mrs. G. C., Wisconsin: "1. Prescribe treatment for intestinal hemorrhage of upper bowel, in child two years old. Also diet. Should vegetables be excluded from latter? 2. What can be done for child's ears, when filled with wax? In cold weather ears fill up and wax runs out. 3. Is there danger if hearing is impaired?"

Ans.— The child should remain quiet in bed. An ice bag should be applied to the stomach. Four to six ounces of cold water should be introduced into the rectum every two hours. The legs and arms should be kept warm by flannel wrappings, hot bags, and friction every two hours, with the hands dipped in cold water. The diet should be fluid in character. It should consist of sweet fruit juices, rice, rice gruel, potato, porridge, fruit soup, almond cream, and granola gruel.

2. There is a diseased condition of the ear, probably of the nose and throat also. A good specialist should be consulted. The general health of the child should be improved by a cold wet-hand rub, applied daily. The child should be kept in the open air for several hours daily. His sleeping room should be well ventilated.

3. Yes.

Bed-Wetting — Dentifrice — Food Combinations.— M. K., California: "1. What is the cause and cure of bed-wetting? 2. Can you name a good dentifrice? 3. Why does milk curdle when combined with granola?"

Ans.— 1. There is an irritable condition of the bladder or of the controlling nerve centers. When local irritation exists, a short, hot sitz bath taken at bedtime will be beneficial. In other cases, a short general cold bath, concluding with a dash of cold water upon the lower spine, is usually beneficial. Raising the foot of the bed eight to ten inches succeeds in some cases. This difficulty, when existing in children, usually disappears with development.

2. Nothing is needed, further than pure water and a good brush. These should be used systematically before and after each meal, and on rising and retiring.

3. It does not, unless the milk is sour.

Neuralgia — Food Combinations.— S. C., Ohio: "1. What is the cause of neuralgia, and how can it be removed? 2. What foods can be combined with eggs, and what should be avoided when eating them?"

Ans.— 1. An eminent London physician defined neuralgia as "the cry of a hungry nerve for better blood. Hot fomentations usually afford temporary relief. In many cases improvement of the general health is required, especially when there is an impoverished state of the blood, nervous exhaustion, chronic indigestion, or a state of uric-acid poisoning. The daily cold bath, out-of-door exercise, sun baths or electric-light baths, and a thorough natural dietary, consisting of fruits, grains, and nuts, with the exclusion of flesh foods of all sorts are to be recommended. A few months' treatment in an institution where rational measures and health culture may be employed, is to be recommended.

2. Cereal foods of all sorts with potatoes. Coarse vegetables, such as cabbage, celery, and roots, are an unwise combination for persons suffering with slow digestion.

NOTES

FROM THE

LITERARY EDITOR'S DESK.

BOOKS RECEIVED.

"A Text-Book of Nursing," for the use of Training Schools, Families, and Private Students, compiled by Clara S. Weeks-Shaw, graduate of the New York Hospital Training School. Revised edition, with numerous illustrations, glossary, and index. New York; D. Appleton and Co., publishers. Price, $1.75.

This is a book written after years of stern, practical experience in nursing. Well illustrated, and written in a clear, practical style, it is a complete text-book of nursing, and as such will be found most valuable.

The Boy is a wonderfully interesting little magazine published monthly in the interests of the boys of America, by the Anti-Cigarette League, with Miss Lucy Page Gaston as its superintendent and founder. The object of the league is to combat, by all legitimate means, the use of tobacco by boys, especially in the form of cigarettes. No mother can afford to do without this little journal in her home. Every one interested in the upholding of purity of life and high ideals, should take an interest in the *Boy* and its work. 50c per year; clubs of four, 25c; twenty or more to one address, 15c. Address: 1119 Woman's Temple, Chicago, Ill. Send two cents for the December number. It will pay you.

Dean Farrar opens Volume 45 of **The Homiletic Review** with a paper, in his best, practical vein, on "The Promise of Present Efforts to Reach the Submerged Masses," in which he shows what is being done for the helpless, and almost hopeless, classes in London and England, through parochial and temperance agencies, by rehousing the poor, and by various philanthropic and other societies. The methods that are being applied are equally applicable to the same classes on this side of the ocean.

THE January number of **Scribner's Magazine**, which marks the beginning of its thirty-third volume, contains two of the notable features of the coming year. It is seldom that the opportunity is offered to present the brilliant letters of a woman who has filled the highest social and official positions at the courts of Europe. The letters of Madame Waddington, wife of the eminent French ambassador, M. William Waddington, begin in this number, with entertaining and witty accounts of the English court in the eighties. Madame Waddington's observations have the greater value to American readers because she is an American, the daughter of a president of Columbia College, and the granddaughter of Rufus King, who was American minister to England.

PUBLISHERS' DEPARTMENT.

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NEW SERVICE TO CALIFORNIA.

ON Jan. 4, 1903, the Chicago, Milwaukee & St. Paul Railway, in connection with the Union Pacific and Southern Pacific Railways, established through car service between Chicago and Nebraska, Colorado, Wyoming, Utah, Nevada, and California, with three daily trains in each direction. Equipment consists of Pullman First-class and Tourist Sleeping Cars, Buffet Library Smoking Cars, Dining Cars, and Free Reclining Chair Cars.

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TIMELY COUNSEL.

In the Chicago *Bulletin of Health* for Dec. 6, 1902, the secretary of the health department calls attention to the evils of city transportation, claiming that the defects of the street-car service is the direct cause of much avoidable sickness and mortality. He strongly urges "upon the public to shun the cars as much as possible, walk any reasonable distance rather than enter the badly ventilated, often filthy, and seldom properly warmed vehicles. They are prolific disease-breeders.

"For the rest, as to the prevention of pneumonia — the type of the foul-air disease — it can only be repeated: Don't neglect a 'cold,' however slight, at this season of the year, but, on the appearance of the first symptoms don't rush out from an overheated office into the street, 60 to 80 degrees lower in temperature, without your overcoat is snugly buttoned up to the throat; keep your mouth shut, and breathe through the nostrils — especially keep your mouth shut and your feet warm and dry; and lastly — although this is probably superfluous at the present price of coal — don't work or sleep, or otherwise live in overheated rooms, and anything over 70 degrees is overheated."

A DELIGHTFUL TRIP.

IT is understood that the railway companies are making thorough preparations for the meeting of the Presbyterian General Assembly at Los Angeles, in May, and a most enthusiastic reception is to be given to the assembly by the citizens of Los Angeles. The rate as announced by the Chicago & North-Western some time since, is to be $50 round trip from Chicago. Low rates from all points will be announced by the Eastern lines.

The great attraction of California scenery and its delightful climate, together with the wonderfully increasing importance of Pacific coast points in the commercial expansion of our nation, has created a notable increase in the amount of travel to the Western coast. To effectively meet the increasing demands of the traveling public, the transcontinental railways have been active in supplying the most complete and luxurious service, and the North-Western line has even been in the lead. W. B. Kniskern, Passenger Traffic Agent.

Vegetarian Cafes and Restaurants

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

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

Directory of Sanitariums

THE following institutions are conducted under the same general management as the Sanitarium at Battle Creek, Mich., which has long been known as the most thoroughly equipped sanitary establishment in the United States. The same rational and physiological principles relative to the treatment of disease are recognized at these institutions as at the Battle Creek Sanitarium, and they are conducted on the same general plan. Both medical and surgical cases are received at all of them. Each one possesses special advantages due to locality or other characteristic features.

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

COLORADO SANITARIUM, Boulder, Colo.

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

NEBRASKA SANITARIUM, College View (Lincoln), Neb.

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

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

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

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

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

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

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

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

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

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

MADISON BRANCH SANITARIUM, 426 State St., Madison, Wis.
C. P. FARNSWORTH, M. D., Superintendent.

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

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

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

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

LONDON BRANCH SANITARIUM, 451 Holloway Road, London, N., England.
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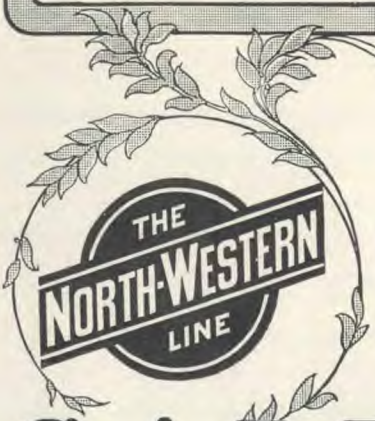

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Battle Creek Sanitarium

East Hall

West Hall

Although two of the main buildings of the Battle Creek Sanitarium were recently destroyed by fire, four large buildings (here shown) and more than twenty small cottages still remain. These have been fitted up for emergency work, and all of the skilled and faithful physicians and nurses, who have heretofore made the work of the institution so effectual, are still at their posts of duty, making it possible for the sick to avail themselves of the advantages that the institution offers, among which are Swedish movements, massage, and special dietaries, bacteriological and chemical laboratories for special research. Incurable and offensive patients not received. For circulars, address—

College Hall

South Hall

Battle Creek Sanitarium, Battle Creek, Mich.