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LIFE AT THE ORIGINAL WATER-CURE.[1]

(Concluded.)

IT was a raw, misty morning,—as are nearly all Graefenberg mornings,—and the chill humidity crept like a breath of ice through our thin remainder of raiment. Loose and shaky, from our coat-skirts to our teeth, we ambled up the hill back of the establishment, in hopes of sheltering ourselves in its woods from an ill-dispositioned wind which blows year in and year out over those landscapes. People passed us or met us every minute, some just starting out in a state of aguish misery; some returning, rosy and happy in their triumphant reaction. The wide path, moistened here and there by spacious puddles, entered the forest and wound gradually up the mountain. At every hundred yards or so, smaller paths diverged through the thickets, or a bubbling fountain reminded the passer that it was time to quench his thirst, if he had any. There must have been twenty miles of pathway around Graefenberg, all, or nearly all, of which had been paid for by a small weekly tax levied on the patients. Several scores of fountains, some of them merely wooden troughs, others basins or obelisks of stone, had been erected by means of this same revenue. Then there was a bronze lion, and two other monuments of considerable cost, dedicated to the honor of Priessnitz, one by the Prussian patients, one by the Hungarians, and a third, I believe, by some noble or other.

Now and then we found some favorite fountain surrounded by invalids, chatting cosily, or pausing to drain their cups, and reminding one of a parcel of hens clucking and drinking about a water-trough. Neuville and I made a very respectable pedestrian effort that morning, and returned to the house with anxious voids in our stomachs, notwithstanding the fact that we occasionally stopped to refill them with water. I should have mentioned that Franz had surcingled us with broad linen bandages, of which the first two turns were wet, and the last two dry, so as to constitute altogether a kind of towel-and-water poultice. This is the finest digestive aid or curative that I know of; as much superior to stomachic pills and cordials as it is nearer to nature.

Breakfast was on the table, as it had been for two hours, when we entered the eating-hall. Like the last night's supper, it consisted of sweet and sour milk, with the usual rye and barley bread. By the time we had swallowed a disgraceful

[1] From an old magazine.

quantity of this simple nutriment, our waist bandages were dry and required new wetting. Then we repaired to a booth and bought stout canes, with iron foot spikes and curved handles, the thickest and fiercest that could be had. Then we debated whether we should get drinking-cups to carry in our pockets, or drinking-horns to wear over our shoulders. At last we decided in favor of the cups, and resolved to visit Freiwaldau after dinner, and choose some handsome ones of Bohemian glass.

Then eleven o'clock arrived, and Franz had us away to sit face to face for fifteen minutes in tubs of cold water, at the end of which he polished us off with wet sheets, in lieu of sand paper. Then we got ashamed of the effeminacy of hats, and walked out conspicuously under bare polls and green umbrellas.

At one o'clock came dinner, which gave us hard work in the digestive and peripatetic line for some hours afterward. At five, Franz wanted to put us in the wet sheet again, and would not take "no" for an answer. Then we had to walk half an hour or more to get warm, and by the time we returned, it was necessary to eat more sour milk and mahogany. Then we remoistened our bandages, preparatory to trotting for an hour or two up and down the great ill-lighted hall, in company with scores of other uncomfortable people. The room was naturally chilly, but so expressly and by malice aforethought, as I believe; in addition to which that rascally superintendent delighted in throwing open an elevated range of windows, thereby giving copious ingress to a damp wind that wandered among our shivering forms like the ghost of a wet sheet. Nine o'clock sent Franz after us, who insisted on wetting our bandages and putting us immediately to bed, in as comfortless a state as half-drowned puppies. Repeatedly in the night we awoke, aching with cold; for our bedclothing was still restricted to a single blanket. At five in the morning, Franz was upon us like the Philistines upon Samson, or like Samson upon the Philistines, dragging us down again into those awful nether regions of wet pavements, brooks, and cisterns.

It was astonishing how rapidly we became fanaticized under the influence of the cure, and the example of our fellow invalids. Before a week was over, I had discarded all my woolen garments of every cut, and wore linen from head to foot, in a temperature like that of a New England March or a Charleston December. It blew every minute and rained nearly as often, yet we caught no colds, and were savagely indifferent to our discomforts. All this, too, was in despite of sarcastic declarations, made on our arrival, that we would dress and behave like civilized people, and not like the slouching, bareheaded, barefooted fanatics around us.

It was also remarkable how this general carelessness in exteriors depreciated the average good looks of the patients. Among the five hundred persons who were under cure in Graefenberg and Freiwaldau, there must have been a number with some natural claims to comeliness, but by dint of shabby clothes, cropped hair, and neglected beards, this favored few had melted away into the great aggregate of ugliness, or retained only a doubtful halo of former beauty. One of our party, a man of sensitive nerves, complained that the daily spectacle of such deteriorated humanity made him unwell, and that he never would convalesce until he could see some handsome people.

Neuville and I had a pearl of a bathman. He was a strong, slow, blue-eyed, light-colored Silesian peasant, who had once possessed a scalp full of sandy hair, but had lost at least half of it in his journey to middle life. His whole ap-

SORELL CREEK FALLS, NEAR NEW NORFOLK, TASMANIA.

pearance, and especially his smooth, shining pate, reeked with an indescribably cool, dewy expression, which made one think of cucumbers, wet pebbles, drenched roses, or heads of lettuce after a shower. Neuville insisted that he gained this fresh appearance by living on such things as celery and watercresses, and by sleeping in one of the cisterns, or, perhaps, down a well, like a bullfrog. It may be, indeed, that the instinct of association deceived us, and that we imputed this aqueous nature to the man solely because he had so much to do with our baths; but however that was, we certainly never looked at him without being impressed with the idea that he would slice up cold and juicy, like a melon or a tomato.

Franz exhibited a forty-hostler power in rubbing us down; in fact, when I think of his frictions, and consider how wet I was at the time, I almost wonder that I was not rubbed out of existence, like a pencil mark. Occasionally it was impossible not to shout or stamp under the excitation, at which time the old Russian below would bombard our floor with his boots, in token of disapprobation.

They told us at Graefenberg of a Mexican who came there a year or two before us, for the sake of trying the cure on his dyspepsia. He went through his first packing with great indignation, and was then taken down-stairs into that horrible abyss of plunge-baths. Priessnitz pointed to the cistern and bade him get into it. "Never!" he thundered; and, marching up-stairs, he dressed himself, and went straight back to Mexico. Another man in the same situation is said to have fallen on his knees before Priessnitz, exclaiming: "O sir, remember that I have a wife and children!"

I ought to say one word of the native beauties of Graefenberg. As there were a number of wealthy families in the borough of Freiwaldau, there were, of course, some young ladies there who dressed well and considered themselves aristocratic. But, however genteel, they were not handsome, and had in particular a dropsical, cadaverous look, as if overbleached in their fathers' linen factories. I never tried to talk to them; common sense forbade it; I spoke no German. The only damsels of the locality with whom it was easy to come to an understanding were the peasant girls who collected, every morning, around the house-fountain, to sell us cakes, strawberries, and cherries. Jovial, laughing bodies, all of them; several were rather pretty in a coarse way, by reason of merry blue eyes, mouths full of fine teeth, and cheeks full of dimples. One of them, who did me the favor to officiate as my washerwoman, was really handsome, so far as regular features, a clear, rosy skin, a small coral mouth, and a nicely-rounded form are sufficient to constitute beauty. The advantages of shoes were acknowledged by these nymphs; but they scorned stockings, and wore frocks reaching a short distance below the knee.

As for the young ladies of our invalid set, and old ladies, too, I had a fair opportunity of seeing them at their best, in the balls which took place twice a week in the great dining-hall. On Sunday evenings and Thursday evenings, the chairs and tables were huddled into one end of the room, so as to give space to dancing and enjoyment. Directly over the principal door a small gallery trembled under a riotous mob of fiddles and trumpets, which some laborious Silesian peasants vainly tried to reduce to melodious order. The society was as mixed a one as could easily be collected in the Hartz mountains of a Walpurgis night, all languages, classes, and manners being there represented, from Americans to Russians, and from dukes to dog doctors.

As Priessnitz insisted that every one should dance who could, it naturally happened that some people tried to dance who could not. I remember one unlucky individual, apparently troubled with the string-halt, who twitched his legs after him in a style that was too much for our gravity; and who, as he made the circle of the saloon in a waltz or polka, was followed by an epidemic smile shooting from face to face, as if he were some planet of mirthfulness, dispensing a splendor of broad grins upon everything which bordered his orbit. Then there was an indiscreet little man in black, who invariably coupled himself with the tallest woman present, and maneuvered her about the hall with the helpless jerkings of a jolly-boat trying to tow a frigate. Many of the guests, however, showed themselves natural and experienced dancers, managing their heels with an eloquence of motion which put to shame the wretched music.

The balls usually began at half-past seven, and continued vehemently until half-past nine, when the patients began to drop off to their chambers. Priessnitz was almost always present, attended by his family, a pleasant smile playing on his red-oak face, while he talked with the old fellows who had the honor of his intimacy, or gazed approvingly at the whirl of feet and faces. Here, as everywhere, he spoke little; and I presume that he had few ideas except such as were good to put in practise; for I understood that he never learned to read until he was twenty-five and that, even now, his selections were limited to an occasional newspaper. Near him usually sat Mrs. Priessnitz, a rather hard-featured, careful-eyed woman, not as kindly in manner as her husband, and to all appearance, still more taciturn. The eldest daughter I never saw, thanks to an attractive dowry by which she had secured a Hungarian noble for a husband. The second daughter — a pale and rather haughty blonde of eighteen, neither handsome nor homely — was one of the most frenetic of the dancers. When nine o'clock came, the old couple quietly walked off, leaving their absence as a hint to the revelers that it was time to wet their bandages and go to bed.

Yet, notwithstanding all the benefits I received, I left Graefenberg before my cure was half completed. The climate, as I have said, was detestable. It rained nearly half the time; the winds were as cold as if they had slept in wet sheets, and blew all the while, without pause or punctuation. The food was an insult to the palate and an injury to the stomach. I knew not the difference in hydropathic physicians, and hoped to find, in some more supportable locality, another as skilful as Priessnitz. Thus, after a residence of two months in Graefenberg, I wandered away, and, now seeking a ruined castle, now a water-cure, traversed middle Germany and all the haunted Rhineland.

TAKE kindly all that is kindly meant,
Be first to thank, be last to resent;
Give smiles to all who give smiles to thee,
And those who come frowning, feign not to see.
And O! believe me, this is the plan
To lighten, to brighten, the lot of man.

Seem blind when the faults of a friend appear;
Seem deaf when the slanderer's voice you hear;
Seem dumb when the curious crowd you meet
And they bid you the slanderous tale repeat;
And O! believe me, this is the plan
To lighten, to brighten, the lot of man.

— *Sel.*

A Rural Scene on the River Derwent, near New Norfolk, Southern Tasmania.

NATURE'S PROVISIONS FOR HEALTH IN AUSTRALASIA.

BY ELDER J. O. CORLISS.

As compared with northern countries, Australasia is a land of contrasts and novelties. There the forest trees are ever green, or rather brown, for their leaves are of a dull, brownish green color, instead of bright and glossy, and are therefore in great contrast to the fresh green presented by an American forest in early spring. The prevailing species of forest trees in that country is the eucalyptus, which, with the acacia, presents its leaves in a vertical instead of a horizontal position, so that both sides are equally exposed to the rays of the sun. Because of this, the forests there afford less density of shade than do those of the northern hemisphere. It will readily be seen that a forest of this nature would have no deep, dark glades,—no walks of profound gloom. On the other hand, they are comparatively light and airy, and afford pleasant strolls to those who have the leisure to spend in viewing the scenes of nature.

That is the only country in which I ever saw a black swan. There is also found there an animal combining the characteristics of the quadruped and the bird. Its technical name is the *platypus*, and its shape and size resemble the otter, while it has the web feet and bill of a duck. It also lays eggs like a bird. It is covered with a pretty fur, shading from black to silver-gray in color, and lives in burrows near the water, like the otter. In many parts of this country may be found an animal as large as a good-sized poodle dog, having shaggy, dirty-looking fur. It is shaped something like a bear. It procures its sustenance by climbing trees, and feeding on the leaves. It becomes so fat upon this diet that it moves with great difficulty, and is easily captured. No one now cares to eat its flesh, on account of its rank taste; but the aborigines formerly made much of it as an article of diet.

The climate of Australia varies according to location. About Sydney, the thermometer seldom registers higher that 95° F. in the shade, and much of the time it is considerably lower; but the atmosphere being a little moist, one feels all the heat there is. The winter, however, is very pleasant, with only occasional frosts. During the summer and autumn, peaches, plums, pears, and kindred fruits are abundant, but the winter season brings forward the most delicious bananas, oranges, and pine-apples. No country in the world affords greater opportunities for healthful living than this. Every variety of fruit and vegetable reaches maturity in the best condition, and the various cereals are of the choicest quality.

Near Adelaide, in South Australia, the thermometer registers rather higher during the summer than it does about Sydney; but the atmosphere there is dry, and therefore the heat does not seem oppressive. In this locality, also, nature provides lavishly everything necessary to a well-ordered diet. It is the same in the vicinity of Melbourne, though the climate there is not so well adapted to the cultivation of semi-tropical fruits. But being in constant communication with those parts where these fruits are produced, its markets are always well supplied with nature's choicest productions, at quite reasonable prices, so that no one with a fair income need want for anything in this line.

Tasmania, known in an early day as Van Dieman's Land, lies South of Australia, and is separated from it by Bass

Strait, which is one hundred and eighty miles in width. It comprises an area of over twenty-six thousand square miles, or a trifle less territory than New Hampshire, Vermont, and Massachusetts combined. The island is mostly surrounded with a steep, rocky coast, indented with numerous inlets, some of which afford good harbor for vessels. Mountain ranges traverse the country, presenting a few elevated peaks; but the face of the country is generally of a rolling character, well watered, and with bountiful forests. The soil is quite fertile; yet, owing to the climate, which is similar to that in the south of England, or of Western Oregon, no tropical fruits grow there. But such fruits and plants as are indigenous to the central portion of the United States find there a congenial soil and atmosphere. At an exposition held in Hobart in the year 1895, I saw as fine a display of apples, pears, peaches, plums, and similar fruits as could be made anywhere in the world. It fairly equaled, if it did not surpass, both in quality and quantity, the exhibit made at the World's Fair in Chicago. The apples of that island, especially, have a delicious flavor, and are generally free from that common pest of the United States, the coddling-moth.

Among the principal towns of the island are New Norfolk, Launceston, and Hobart, the latter of which is the capital of the colony. It is located on the west bank of the Derwent River, about seventeen miles from the ocean, and just at the base of Mount Wellington, the summit of which is covered with snow a large portion of the year. The beautiful surroundings of the town make it a popular summer resort for Australian tourists seeking a cooler climate than that afforded in the more northerly cities of their own colonies.

The locality affords opportunity for numerous charming excursions by both land and water. Ascending the river to its source, one is greeted at every turn with the most beautiful scenery. One fine view is shown on the Derwent River. The stream has its rise in Lake St. Clair, near the center of the island, and flows in a southeasterly direction, receiving on its way the streams of many affluents, coming down from the hills on either side. Its banks for the entire length, are lined with a wealth of vegetation, which in many places extends to the water's edge. In other parts, more especially between Hobart and New Norfolk, a distance of twenty miles, the meadows of green gradually rise from the edges of the stream, till they become lost in the distant ranges, which stand out in irregular piles against a background of the clearest ether. Now and then one sees, nestling amid the rich foliage, the elegant mansion of some gentleman of leisure, or the comfortable home of the toiling farmer, surrounded with its well-kept garden.

Taking the steamer for a two days' outing down the river, one visits the famous Port Arthur, once the dreaded abode of the English convicts. Little, however, is now left there but the ruins of what was once an earthly purgatory. Here are portions of the old prison, and there the walls of the church, where those who so desired could go on Sunday, and while listening to words of dismal admonition, hate their ghostly adviser, and plan methods of revenge and escape.

Not far from this point is another place of considerable interest, which is called the "blowhole." This is an immense opening in the rock which forms a narrow peninsula, through which the waves of the ocean rush with tremendous force, filling the basin beyond with a roaring sound like the approach of a terrible earthquake.

One of the favorite drives from Hobart is on the Huon River road. The river along which this drive runs is formed from the melting snows on the mountain

FERN TREE BOWER, TASMANIA.

top, and the water, as it leaps down the steep declivities, forces a passage among huge boulders, eddies through fertile valleys, and joining with other streams, forms one grand sheet of water, which hurries forward in feverish haste to pour its treasure into the sea. Along the route are ferns of almost endless variety, from the coarse, heavy leaves of the largest variety to the bridal-veil texture of the most delicate plant. Interspersed with these are acacias, known there as wattle-trees, around which clings the clematis, or white virgin's bower, with rope-like stems, varying in size from that of a quill to a man's arm, and presenting such a profusion of beautiful, clear blossoms as to have the appearance, at a little distance, of a snow-white cloth covering the tops of the trees. These, with the great quantity of other wild flowering shrubs which abound in these illimitable forests, give the place a most picturesque appearance.

Another drive is to the Half-way House, on the side of Mount Wellington, from whence tourists attempt to climb to the top of the mountain. Every one, however, does not succeed in reaching the desired point, as the writer knows by experience. The Fern Tree Bower, shown in the accompanying cut, is one of the delightful spots visited on the way up the mountainside, and offers a cool retreat to the weary; for mountain-climbing proves to be exceedingly vigorous exercise. But there are wondrous returns in the glowing cheek, the sharp appetite, and the feeling of renewed youth. Having once tasted these joys, the traveler wonders how it is that he has ever been led to yield to habits of labor and diet that made it necessary to seek a resort for the recuperation of health.

MOROCCO MEDICINE.

BY J. E. BUDGETT MEAKIN.

ALTHOUGH the Moors have a certain rudimentary acquaintance with simple medicinal agents,— and how rudimentary that acquaintance is, will better appear from what is to follow,— in all their pharmacopeia no remedy is so often recommended or so implicitly relied on as the "writing" of a man of reputed sanctity. Such a writing may consist merely of a piece of paper scribbled over with the name of God, or some sentence from the Koran, such as, "And only God is the Healer," repeated many times; or in special cases it may contain a whole series of pious expressions and meaningless incantations. For an ordinary external complaint, such as general debility arising from the evil eye of a neighbor or a jealous wife, or as a preventive against bewitchment, or as a love philter, it is usually considered sufficient to wear it in a leather bag around the neck or on the forehead; but in cases of unfathomable internal disease, such as indigestion, the "writing" is, as a rule, prescribed to be divided into so many equal portions, and taken in a little water night and morning.

The author of these potent documents is sometimes a hereditary saint descended from Mohammed, sometimes a saint whose sanctity arises from real or assumed insanity,— for to be mad in Barbary is to have one's thoughts so occupied with things of heaven as to have no time left for things of earth,— and often they are written by ordinary public scribes, or schoolmasters; for among the Moors reading and religion are almost synonymous terms. There are, however, a few professional gentlemen who dispense these

writings among their drugs. Such alone of all their quacks aspire to the title of "doctor." Most of these spend their time wandering about the country from fair to fair, setting up their tents wherever there are patients to be found in sufficient numbers.

Attired as natives, let us visit such a one. Arrived at the tent door, we salute the learned occupant with the prescribed, "*Salam wa alaikum*" (To you be peace), to which, on noting our superior costume, he replies with a volley of complimentary inquiries and welcomes. These we acknowledge with dignity and with as sedate an air as possible. We leisurely seat ourselves on the ground in orthodox style, like tailors. As it would not be considered polite to mention our business at first, we defer professional consultation till we have inquired successively after his health, his travels, and the latest news at home and from abroad.

In the course of conversation he gives us to understand that he is one of the sultan's uncles, which is by no means impossible in a country where it has not been an uncommon thing for an imperial father to lose count of his numerous male progeny, and never to attempt to reckon his daughters. Mulai Isemaël, who rivaled Solomon in the number of his women, is recorded to have lost count at eight hundred. That, however, is a native record. To prevent the inconveniences which would arise from the presence of such extensive royal families, all but the children of those favorites who maintain their ascendency, are transported in infancy to Tafilelt, across the Atlas Mountains.

Feeling at last that we have broken the ice, we turn the conversation to the subject of our supposed ailments. To at once approach the object of one's errand in any business is not considered good breeding in Morocco. My own complaint is a general internal disorder resulting in occasional feverishness, griping pains, and loss of sleep. After asking a number of really sensible questions, such as would seem to place him above the ordinary rank of native practitioners, he gravely announces that he has "the very thing" in the form of a powder, which, from its high virtues, and the exceeding number of its ingredients, some of them costly, is rather expensive. We remember the deference with which our costumes were noted, and understand. But, after all, the price of a supply is announced to be only fifteen cents. The contents of some of the canisters he shows us, include respectively, according to his account, from twenty to fifty drugs. For our own part, we strongly suspect that all are spices to be procured of any Moorish grocer.

Along with the prescription I receive instructions to drink the soup from a fat chicken in the morning, and to eat its flesh in the evening; to eat hot bread, to drink sweet tea, and to do as little work as possible; the powder to be taken daily for a fortnight in a little honey. Whatever else he may not know, it is evident that our doctor knows full well how to humor his patients.

The next case is even more easy of treatment than this, a "writing" only being required. On a piece of very common paper two or three inches square, the doctor writes something of which the only legible part is the first line: "In the name of the most merciful God," followed, we subsequently learn, by repetitions of "Only God is the Healer." For this the patient is to get his wife to make a felt bag sewed with colored silk, into which the charm is to be put, along with a little salt and a few parings of garlic, after which it is to be worn round his neck forever.

Sometimes one comes across much

more curious remedies than these in wandering through Morocco, for the worthy we have just visited is but a common-place type in that country. A medical friend once met a professional brother in the interior who had a truly original method of proving his skill. By pressing his finger on the side of his nose, close to his eye, he could send a jet of liquid right into his interlocutor's face, a proceeding sufficient to satisfy all doubts as to his alleged marvelous powers. On examination it was found that he had a small orifice near the corner of the eye through which the pressure forced the lachrymal fluid, — pure tears in fact. This is just an instance of the way in which any natural defect or peculiarity is made the most of by these wandering empirics, to impose on their ignorant and credulous victims.

Even such of them as do give any variety of remedies are hardly more to be trusted. Whatever they give, their patients like big doses, and are not content without corresponding and visible effects. Epsom salts, which is in great repute as a remedy, is never given in less quantities than two tablespoonfuls to a man. On one occasion a poor woman came to me suffering from ague, and looking very dejected. I mixed this quantity of salts in a tumblerful of water, with a good dose of quinine, bidding her drink two thirds of it, and give the remainder to her daughter, who evidently needed it as much as she did. Her share was soon disposed of with hardly more than a grimace, to the infinite enjoyment of a fat, black slave girl who was standing by, and knew from personal experience what such a tumblerful meant. But to induce the child to take hers was quite a different matter. "What! not drink it?" the mother cried, as she held the potion to her lips. "The devil take thee, thou cursed offspring of an abandoned woman! Burn thy ancestors!" But though the child, too accustomed to such mild and motherly invectives, budged not, it had proved altogether too much for the jovial slave, who was by this time convulsed with laughter, and so, I may as well confess, was I. At last the woman's powers of persuasion were exhausted, and she drained the glass herself.

When in Fez some years ago, a dog I had with me needed dosing, so I got three drops of croton-oil on sugar made ready for him. Mine host, a man of over fifty, came in meanwhile, and having ascertained the action of the drug from my servant, thought it might possibly do himself good, and forthwith swallowed it. Of this the first intimation I had was from the agonizing screams of the old man, who loudly proclaimed that his hour had come, and the terrified wails of the females of the establishment, who thought so too. When I saw him, he was rolling on the tiles of the courtyard, his heels in the air, bellowing frantically. I need hardly dilate upon the relief I felt when at last we succeeded in alleviating his pain, and knew he was out of danger.

Among the favorite remedies of Morocco, hyena's-head powder ranks high as a purge, and the dried bones and flesh may often be seen in the native spice-shops, coated with dust as they hang. Some of the prescriptions given are too filthy to repeat, almost to be believed.

As a specimen, by no means of the worst, I may mention a recipe at one time in favor among the Jewesses of Mogador, according to one writer. This was to drink seven drafts from the town drain where it entered the sea, beaten up with seven eggs. For diseases of the heart, by which they mean stomach or liver, and of eyes, joints, etc., a stone which is found in an animal called the *horreh*, the size of a small walnut, and valued as high as twelve dollars, is ground up and swal-

lowed, the patient thereafter remaining indoors for a week. Ants, prepared in various ways, are recommended for lethargy, and lion's flesh for cowardice. Privet or mallow leaves, fresh honey, and chameleons split open alive are considered good for wounds and sores, while the fumes from the burning of the dried body of this animal are often inhaled. As cures for ophthalmia, antimony and red pepper applied to the eyelids are rivals, or powdered sugar and canary seed are blown in. Among more ordinary remedies are sarsaparilla, senna, and a number of other well-known herbs and roots, whose action is more or less understood. Roasted pomegranate rind in powder is found really effectual in dysentery and diarrhea.

Men and women continually apply for philters, and women for means to prevent their husbands from liking rival wives, or for poison to put them out of the way. As arsenic, corrosive sublimate, and other poisons are sold freely even to children in every spice-shop, the number of unaccounted-for deaths is extremely large, but inquiry is seldom or never made. When it is openly averred that so and so died from "a cup of tea," the only mental comment seems to be that she was very foolish not to be more careful what she drank, and to see that whoever prepared it took the first sip according to custom.

The highest recommendation of any particular dish or spice is that it is "healing." But the greatest faith seems to be placed in certain sacred rocks, tree stumps, etc., which are visited in the hope of obtaining relief from all sorts of ailments. Visitors often leave rags torn from their garments by which to be remembered by the guardian of the place. Others repair to the famous sulphur springs which are supposed to derive their benefit from the interment close by of a certain St. Jacob, and dance in the waters, yelling, without intermission, "Cold and hot, O my lord Yakoob! Cold and hot!" fearful lest any cessation of the cry might permit the temperature to be increased or diminished beyond the bearable point.

PHYSICAL INFLUENCE OF THE WEATHER.[1]

BY J. H. KELLOGG, M. D.

THERE is not a human being, there is not an animal that lives, there is not a plant that grows, which is not more or less affected by the weather. The weather is made up of a variety of conditions of the atmosphere, and we are all dependent to a considerable degree upon those conditions for our physiological state.

The elements which go to make up the weather are: Temperature,—moisture or dryness; atmospheric pressure,—windy or calm weather; bright or cloudy weather; besides changes in electrical conditions. Now here are five different conditions or changes of the weather to whose variations we are subject. Let us see how nature adapts herself to these different conditions of the atmosphere,—for example, the temperature. How is it that nature provides for a comfortable state of the body under all the extremes of temperature?

In the torrid regions the temperature sometimes runs up to 130° or 140° in the shade; and 120° in the shade is not uncommon. I have been told by those liv-

[1] Abstract from a lecture before the patients of the Battle Creek Sanitarium.

ing at Fort Yuma, N. M., that they have known the temperature to be 130° in the shade; one man told me that he had seen it at 135°. In the Arctic regions, the temperature is frequently observed to be 40°, 50°, 60°, and even 70° below zero. There is a great difference between 120° above, and 70° below, zero. One would naturally suppose it would be impossible for animal life to exist at these extremes of temperature; yet this is possible, because nature has a self-regulating, automatic arrangement for governing heat-production and heat-dissipation in the body. These two principles are in constant operation in such a way that one controls and balances the other. The heat-making processes of the body are governed by a heat-controlling center at the base of the brain; and when a person has a fever, it is because the heat-making center is excited — it may be on account of poisons in the system, or it may be due to the fact that heat-dissipation is lessened. At the same time that the heat-producing process is going on, there are other processes in action by which the heat of the body is dissipated. The first of these is the contact of the cold air with the surfaces of the body, which carries off heat by convection, just as air coming in contact with a heated stove carries the heat away from it by circulation; the second is the evaporation of moisture from the body surfaces — the surface of the skin and the surface of the lungs. The mucous membrane of the lungs affords the greatest source of heat-dissipation, for the reason that there is such a vast extent of surface there, in the millions of minute, winding channels and air-cells. If this mucous membrane were spread over a level surface, it would cover from 1400 to 2000 square feet of surface. It will readily be seen that evaporation from so large a surface must be very great indeed. The outside surface of the body is only about seven square feet, and consequently the evaporation from the lung surface is much greater than that from the body surface.

Now this means of cooling the body is under constant regulation. There are in the body, and also in the brain, nerve-centers which send out fibers all over the body, and these fibers have for their duty the transmission of messages to the nerve-centers of the brain, which control the action of the little muscles surrounding the blood-vessels; and by this means the blood supply to any part of the body may be controlled. When there is the requisite amount of evaporation from the skin, the blood-vessels are relaxed, and the skin is filled with blood. Before one breaks into a perspiration, his skin is hot and uncomfortable; but as soon as the perspiration starts, he feels better. This perspiration is nature's means of controlling the fires of the body, and preventing their rising to too high a point.

But it may be asked, "What has all this to do with the weather?" It has a great deal to do with it, for the reason that the varying conditions of the atmosphere control, to a large degree, the amount of evaporation from the skin. You have all doubtless noticed that in driving just before a rain, your horses seem to perspire very freely; but that by and by, after the rain has passed away, and the sun comes out, the horses are perfectly dry when working even harder than before. This is because, before the rain, the air was saturated with moisture, and consequently the perspiration could not evaporate, as it does on a dry, bright day. On a rainy day the clothes are damp, the house is damp, and everything one touches feels damp, even though it is not exposed to the rain. This is simply because the air is full of moisture, and hence it cannot take up any more. Under these conditions, the moisture which the lungs and the skin

should throw off into the atmosphere, thus cooling the body and lowering its temperature, is retained in the system, and the poisonous elements which it contains give rise to various disturbing results.

Thus a person subject to rheumatism suffers more in damp weather because of the poisons which are retained in the body, and are irritating certain portions of it. In consequence of the inability of the lungs and skin to do their part in eliminating, more work is put upon the liver and kidneys; and if these organs are not vigorous enough to perform this extra work, the person suffers in various ways. Thus the different atmospheric changes affect every physiological function. The body is at work all the time adjusting itself to these varying conditions.

There is another thing of interest to us in connection with the influence of the temperature upon the air; viz., the amount of oxygen that it contains. The oxygen is the vitalizing part of the air; it is oxygen which supports the fires of the heart; it is oxygen which produces oxidation; it is oxygen which supports the life of plants; it is oxygen which supports all natural life; it is oxygen which makes the burning of the candle and of the lamp possible.

The application of heat to the air has the effect of diluting the oxygen which it contains. It is for this reason that it seems so difficult to breathe on top of a mountain. You know how easily one gets out of breath while climbing a mountain. That is because the air is so thin; that is, because there is so little oxygen in it. Now the same principle applies in changes of temperature; when the air is warm, it is rarefied, and the oxygen is present — not in less proportion to the air, but in less proportion to this rarefied air. So cold air is denser and more invigorating than warm air, which has been diluted by the heat. That is the reason that the fire on the hearth burns brighter as cold weather comes on. There is more oxygen present than in warm weather, and the oxygen stimulates combustion. Now at the same time when the fires on the hearth are burning more brightly, the vital fires in our bodies are also burning with greater vigor. The thousands of people who run away from cold weather make a great mistake. Cold weather is one of the best of tonics, because we get more oxygen than in warm weather. Indeed, the intensity and character of our lives depends upon the amount of oxygen which we take into our bodies. That is why we feel brighter and clearer, and live on a little higher plane, in cool weather than in warm weather.

We see the difference between nations living in cold climates and those living in warm climates. The people living in temperate climates are vigorous people, — they rule the world. This is what gives the people of England the dominance over the people of India; a few Englishmen are able to rule millions of Hindus, chiefly because they have been raised in a cooler atmosphere. If we go too far north, among the natives of the Arctic regions, the cold is so great that it is not compensated for by the oxygen which they receive.

Nature gives us the changes of weather afforded by the different seasons as a tonic, a sort of vital gymnastics. By these changes of temperature, we put on a new constitution. Thus, in summer we have first a long Turkish bath, and then an opportunity to cool off; then we come to the cooler weather of autumn for reconstruction. During the summer the body has been eliminating the waste material, and getting into a condition for rebuilding; and then by the cooling of the air, the process of tissue-building

is stimulated. People feel better in cool weather than in warm weather because of this rejuvenating process. When the first warm days of spring come, we feel relaxed and debilitated. This is because we suffer temporarily from a certain withdrawal of the tonic atmospheric influences to which we have been accustomed during the winter.

Sunshine is another of the elements of the weather, and it is one of the most potent of nature's life-saving agents. Nothing grows in the dark but mold and a few fungi. Vegetables raised in the dark are always colorless. The fish in the waters of the Mammoth Cave are colorless and blind; their eyes have gradually disappeared for want of use. The same principle applies to human beings.

The people who live in the valleys among the high Alps are very subject to what is known as "cretinism," a physiological disease by which both mind and body are affected. The people thus afflicted have large goiters, which sometimes grow to an enormous size, so large that they hang down nearly to the waist, and it is necessary to wear bands around the body to support them. It is only in the deep valleys, where the sun shines only from about ten o'clock in the morning to half past two or three in the afternoon, that this disease manifests itself. It was formerly attributed to various causes, but the government finally established hospitals on the tops of some of the mountains, where patients could get sunshine twice as long as before, and it was found that those patients who were moved up there got well, which proved that it is the lack of sunshine which produces this condition. It has been observed in countries where there is a good deal of cloudy weather that goiters prevail, but not to so great an extent as in the valleys of the Alps.

Thus it has been proved that people cannot thrive without sunshine. The sun's rays not only affect the surface of the body, but shine into the body, stimulating all the tissues and nerves. If we remember this, it may lead us to expose ourselves more to the sunlight.

But because certain conditions of the weather are less favorable to health than others, it is very unwise for us to accentuate them by complaining of the weather. If a person gets the impression that he is to be happy or miserable with every change of the weather, he will find opportunity to be miserable a large share of the time; for the entirely perfect days are very rare. The fact is, there is no condition of the weather so unfavorable to the health as a morbid and unhappy state of mind.

VENTILATION.

NOTWITHSTANDING the efforts put forth in sanitary projects by individuals, societies, and schools, there is not yet sufficient interest on the part of the people generally in the subject of ventilation to bring about a reform in the building of houses in relation to that all-important matter; *i. e.*, a reform which will provide greater facilities for ventilation than those which now obtain in the ordinary dwelling-house. There should be, not only on the part of the architect, but on the part of those whose lot it is to choose a place for permanent abode, a demand for a better system of ventilation than that in general use.

It has been stated that there is no greater cause of mortality than impure air. Oxygen is as indispensable to the human machine as it is to the consump-

tion of fuel. What fuel is to the stove, food is to the body; both require oxygen. It is necessary for the rapid combustion in the one case, and for the slower form, oxidation, in the other. Oxygen is, therefore, an ever-present commodity, provided by nature, which we are constantly bartering for that which is poisonous to the animal, but life-giving to the vegetable, creation — carbonic acid gas — the cause of so many headaches, so much ennui. Hence, it is not only necessary to watch with vigilant eye, lamps, gas, and stoves, which are producing combustion, and thus depriving the air of its oxygen and giving us the poisonous gas, but also to remember the silent process of oxidation going on in our bodies, and altering precisely in the same way the character of the air. The really beautiful structure of the lungs, — that marvelous adjustment, which allows for an exchange of gases, — and the still greater wonder, the affinity of oxygen for the blood, and of carbonic acid gas for the air; in fact, the whole adaptability of the human body to its proper surroundings, are all subjects worth our study.

That the character of the atmosphere is ever deteriorating, and requires the constant watchfulness of some one for its replenishing — this is a fact to be borne in mind. And to obtain a full view of the subject, we must become thoroughly acquainted with its relative details; *i. e.*, with the laws which govern it; the economy necessary both as to the expense of fuel and as to bodily energy; and also with its bearing on health, and the digestion and assimilation of food. The result of such knowledge will be happier, more healthy, and more prosperous communities. — *The Trained Nurse.*

A MICROBE-PROOF HOUSE.

One of the oddest domiciles on earth is that recently erected at Yokohama by Dr. W. Van der Heyden, the noted bacteriologist of Utrecht and Japan. It is a dust-proof, air-proof, microbe-proof building of glass, and stands on the open, unshaded grounds of the hospital of Yokohama. The house is forty-four feet long, twenty-three feet wide, and seventeen feet high. Large panes of glass, one-half inch thick and about four inches apart, are set in iron frames so as to form the sides of a cellular building-block. Of these blocks the walls are constructed. There are no window sashes, the air-escape being through several small openings around the second part of the second story, but through which no air from the outside is admitted. The air-supply is obtained from a considerable distance, forced through a pipe, and carefully filtered through cotton wool to cleanse it of bacteria.

To insure further sterilization, the air is driven against a glycerine-coated plate of glass, which captures all the microbes the wool spares. The few microbes brought into the house in the clothes of visitors soon die in the warm sunlight with which the house is flooded. The space between the glasses of the building-blocks is filled with a solution of salts, which absorbs the heat of the sun, so that the rooms of this house are much cooler than those protected by the thickest shades. In the evening the interior is heated by the salts' radiating the heat they have absorbed during the day. So effective is this system of regulating the temperature that a few hours of sunlight, even in freezing weather,

will render the house habitable. It is only when several cloudy days follow in succession that artificial heat is needed. Then it is supplied by pumping in hot air. Dr. Van der Heyden thinks he has solved the problem of a complete germicide on a large scale. — *N. Y. Home Journal.*

MORALS OF THE BATH TUB.

"It is very easy to find a direct connection between the cleanliness of a people and their moral standard," writes Edward W. Bok. "Of all the external aids to a moral life none is so potent as tidiness. An untidy man or woman soon becomes a moral sloven. Let a man be careless of his surroundings, of his companionships, of his dress, of his general appearance, and of his bodily habits, and it is not long before the same carelessness extends into the realm of his morals. We are all creatures of our surroundings, and we work and act as we feel. If a man lives in a home where carelessness or untidiness in his dress is overlooked, he very soon goes from one inexactitude to another. The moral fiber of a man, fine of itself, can soon become coarse if the influence of his external surroundings is coarse. I believe thoroughly in the effect of a man's dress and habits of person upon his moral character.

"The man who makes a point of keeping himself clean, and whose clothes look neat, no matter how moderate of cost they may be, works better, feels better, and is in every sense a better business man than his fellow worker who is disregardful of both his body and dress, or either. He works at a distinct advantage. The external man unquestionably influences the internal man. I would give far more for the work done by a man who has the invigorating moral tonic of a morning bath and the feeling of clean linen, than I would for the work done by a man who scarcely washes, and rushes into his clothes.

"The time spent upon the body is never wasted ; on the contrary, it is time well invested. A machine of metal and steel must be clean before it can do good work. So, too, it is with the human machine. Disregard of the body soon grows into moral slovenliness."

Free Public Baths.— At the last meeting of the American Medical Association, Dr. Chas. H. Shepard summarized the benefits which would accrue from the establishment of free public Turkish baths as follows: —

"They would be comparatively inexpensive.

"They would lessen the cost of medication.

"They would prevent the spread of epidemics.

"They would render extinct many classes of disease.

"They would lessen the demand for stimulants of every kind, and render the police force less necessary.

"They would be more powerful than any law of prohibition, because they would be more attractive than the saloons.

"They would reduce the expenses of hospitals and asylums.

"They would shorten the time necessary for patients to remain in such institutions.

"They would reduce the demand for hospitals, so that those already built would be sufficient for a generation to come.

"They would help toward the refinement of the community.

"They would vastly prolong the average life of the people.

"They would add to the enjoyment of life, by making everybody healthier and happier.

"They would tend to render the cities that adopted the bath pre-eminent among all the cities of the world, and make them an example for all other cities to follow.

"They would redound to the honor and conduce to the growth of such cities, and continually increase the numbers of the better element of their citizens.

"They would uplift the community, and tend to develop a superior race of mankind, as handsome as were the Greek models, and as powerful as ever were the Romans.

"To the individual the Turkish bath is the perfection of sanitary science, and to the nation it is the coming blessing.

"These few reasons but imperfectly state the great need and many advantages that would accrue to the community adopting the practise of public Turkish baths."

Music for the Insane.—On the twenty-sixth of February Professor Wm. L. Tomlins, director of the Apollo Club, of Chicago, with twenty-eight of the members, went to Kankakee, and sang to the one thousand two hundred inmates of the Eastern Illinois Hospital for the insane.

The first selection given was Mendelssohn's "Farewell to the Forest." The strictest attention was given to the rendering of this number, by the audience, and with the exception of a few patients, who were suffering from apathetic forms of dementia, the brightened eyes and the aroused expressions showed that the interest had been stimulated. Several choruses were sung with all the care, finish, and individuality of tone which are the marked characteristics of the Apollo Club, and all were received with applause and appreciation, but the apathy of a few unfortunates remained unbroken. Professor Tomlins then began to sing with all the fire of a soldier and the thrill of a bugle call the stirring words and music of "The Battle Hymn of the Republic," the Apollo Club joining in the chorus. For the first time the apathetic were aroused; they moved uneasily in their seats, downcast eyes were lifted; attention to an evident extent was apparent. Music had touched a chord that vibrated harmoniously, and aroused interest.

After this the patients were requested to join in the choruses, which they did, many of them with enthusiasm. Then Dr. Gapin, the superintendent, asked the audience to compliment the Apollo Club with a song. Printed sheets, containing the words of "Annie Laurie," "America," "Nancy Lee," and "Old Folks at Home," were distributed. The audience of more than one thousand insane men and women sang these simple old songs correctly and with good expression.

Following this, other solos were sung by members of the Club with marked effect. Perhaps the strongest influence exerted by any of the choral numbers was caused by the singing of Beethoven's "The Heavens Resound." The majestic chords thrilled the audience with great enthusiasm. Two men arose in their seats and stood during the finale of the chorus, but made no outcry, and resumed their seats when the music ceased.

At the close of this strange concert, both Professor Tomlins and Dr. Gapin felt convinced that music exerts a marked therapeutic power, and that, properly superintended and systematized, it is destined to become a practical aid in the restoration to sanity.

THE INFLUENCE OF ALCOHOLIC DRINKS UPON DIGESTION.

BY J. H. KELLOGG, M. D.

(Concluded.)

FOR many years the opinion has prevailed that wines, or at least certain wines, are particularly helpful to digestion. In order to obtain accurate scientific data in relation to this question, the investigators made a number of experiments with sherry, claret, ale, porter, and lager-beer. The results of these experiments were as follows: —

In eighty experiments with sherry containing about twenty per cent. of alcohol, it was found that peptic digestion was retarded in every case but one, even so small an amount of sherry as one per cent. reducing digestive activity, in one case nearly nine per cent. The average amount of retardation of digestion from one per cent. of sherry was 3.8, or nearly four per cent. In the only case in which there was an indication of an increase of digestive activity, the amount of increase was but .6 per cent., an amount so small as to be clearly incidental when considered in the light of the other seven experiments, in all of which digestive activity was reduced.

Six experiments were made with claret, containing about ten per cent. of alcohol per volume. In three of the six experiments, the average retardation of digestion was 3.2 per cent. In one experiment there was no change, and in two there was apparently a slight increase. When three per cent. of claret was used (equivalent to three tenths of one per cent. of alcohol), there was, however, marked diminution in digestive activity in every case.

From these experiments it is very evident that both sherry and claret wines, which have been so extensively prescribed for digestive disorders, must be regarded as highly detrimental to the digestive processes. This is especially apparent when it is considered how small an amount is required to prevent digestive action. One per cent. of sherry and three per cent. of claret are respectively equivalent to .2 and .3 per cent. of alcohol. When it is considered that three per cent. of claret was universally found injurious to digestion, and one per cent. of claret practically the same, it is evident that it is quite impossible to make any use of these wines whatever without detriment to digestion. The amount of sherry required to be taken at a meal to constitute one per cent. of the stomach contents, would be but half an ounce, or less than an ordinary tablespoonful, and the amount of claret only three times as great. And since this amount is so decidedly injurious to digestion, it is evident that even a very small quantity must be more or less prejudicial.

Toledo, Milwaukee, and New Haven lager-beer, in so small a quantity as three per cent., or three tablespoonfuls at a meal, was found to retard digestion to a very marked degree. "Burton's Pale Ale," "Bass & Co.'s Extra," in the quantity of one per cent., or one tablespoonful to a meal, produced a distinct diminution in digestive activity. One per cent. of porter, equivalent to a tablespoonful, taken with a hearty meal, produced a diminution in digestive activity amounting to nearly four per cent. (3.8 per cent.)

The Injurious Effects of Alcohol upon Pancreatic Digestion.— The effect of alcohol upon pancreatic digestion is found to be even more injurious than upon gastric digestion, as is shown by the following results : —

Several experiments were made for the purpose of determining the effects of absolute alcohol upon pancreatic digestion. The digestive action of the pancreatic ferments was found to be retarded in every case, and that to a marked degree. In one case, in which two per cent. of absolute alcohol was added, the digestive action was diminished as much as ten per cent., from which the experimenters very justly concluded that "the proteolytic ferment of the pancreatic juice is more sensitive to absolute alcohol than is the ferment of the gastric juice," and that "retardation of the digestive action is more pronounced even with a small amount of alcohol.

One per cent. of whisky, containing fifty per cent. of alcohol, reduced digestive activity more than seventy-five per cent., and ten per cent. of whisky produced a diminution of nearly seventeen per cent., from which the experimenters conclude that "even small amounts of whisky are detrimental to the digestive action of the pancreatic juice on proteid food." In experiments made for the purpose of determining the influence of amyl and other alcohols found in fusel-oils, with which all distilled liquors are liable to be more or less contaminated, it is found that so small an amount of amyl alcohol as .05 per cent. (one twentieth of one per cent.) distinctly retarded the digestive process, while two per cent. of amyl alcohol reduced digestive action nearly twenty-two per cent.

Butyl alcohol produced the same effect as amyl alcohol. Fifteen per cent. butyl alcohol retarded digestive activity in one case nearly seventy per cent., thus reducing the digestive activity more than two thirds.

Propyl alcohol, in the proportion of 0.25, or one fourth of one per cent., decidedly retarded digestive action. Methyl alcohol, in the minute quantity of .05, or one half of one per cent., produced an evident decrease in digestive action, while twenty per cent. of this alcohol lessened digestive activity fifty-seven per cent. Experiments made for the purpose of determining the effects of various alcohols upon trypsin digestion showed a decided diminution of digestive activity in every case.

Methyl, ethyl, propyl, and isobutyl alcohols were used in proportions varying from nothing to fifteen per cent. The digestive activity was diminished in every case, and to a degree corresponding exactly to the quantity of alcohol employed; the greater the amount of alcohol, the less the digestive activity.

In experiments made with different brands of wines in various quantities, it was found that the digestive action of trypsin was diminished in every case, even when so small an amount as one per cent. of wine was employed.

The following tables present a summarized statement of the influence of different forms of alcoholic drinks upon gastric and pancreatic digestion : —

TABLE SHOWING THE EFFECTS OF ALCOHOLIC DRINKS UPON PEPSIN DIGESTION.

FLUID USED.	Alcoholic strength.	Undigested fibrin.	Proteid digested.	Relative proteolytic action.
	Per cent.	Grm.	Per cent.	
		0.20	90.0	100.0
5 per cent. absolute alcohol.	99.5	0.26	87.0	96.6
5 " " rum.....	51.0	0.23	88.5	98.3
5 " " whisky.....	50.5	0.23	88.5	98.3
5 " " brandy.....	47.5	0.22	88.8	98.7
5 " " sherry.....	21.0	0.30	84.8	94.2
5 " " hochheimer.....	11.0	0.24	87.9	97.6
5 " " claret.....	10.0	0.25	87.2	96.8

TABLE SHOWING THE EFFECTS OF ALCOHOLIC DRINKS UPON TRYPSIN OR PANCREATIC DIGESTION.

FLUID ADDED.	Undigested fibrin.	Proteid digested.	Relative proteolytic action.
	Grams	Per cent.	
0 per cent.	0.59	40.6	100.0
5 " " absolute alcohol	0.66	33.8	83.2
10 " " whisky	0.68	31.6	77.8
10 " " brandy	0.64	35.4	87.1
10 " " rum	0.68	31.9	78.5
10 " " sherry	0.75	25.0	61.5
10 " " hochheimer	0.78	21.5	52.9
10 " " claret	0.85	14.7	36.2

In the light of these experiments, it is truly astonishing that the investigators could have discovered, by the aid of the most biased vision, any foundation for the habitual use of alcoholic drinks in even the smallest quantities. If so small a quantity of sherry wine as one tablespoonful taken with a full meal amounting to not less than three pints,—the full capacity of an ordinary stomach,— will diminish digestive activity in seven cases out of eight, what must be the effect of half a bottle of wine, the amount customarily taken by persons in the habit of using wine with their meals?

Professor Bunge has proved by overwhelming evidence that alcohol is not a food, and that it cannot be advantageously utilized in any way by the vital economy. Now Professors Chittenden and Mendel have shown that alcohol is not only not a food in itself, but that it interferes with digestion, and hence with the assimilation and utilization of foods, at least with the most important of food elements,— the proteids, which constitute the blood-making and tissue-forming constituents of the food substances.

We know of no excuse which can be found for either the recommendation or the tolerance of the habitual use of alcohol, even in the form of light wines, ale, or beer, unless it be that given by Dr. Roberts, that the modern digestive powers are so vigorous that people are suffering from "an overdue and dangerous acceleration of nutrition." We imagine, however, that there are few physicians who would consider it a safe and proper thing to recommend to their patients the regular use of a digestion-destroying agent. The American stomach needs help, not hindrance.— *Modern Medicine.*

A HOME FOR INEBRIATE WOMEN.

A PRACTICAL move is on foot in England, under the direct supervision of Lady Henry Somerset, whereby a home, or really a reformatory, is to be provided for inebriate women. It is to be known as the Duxhurst Home, and will include, first, what is called the Mansion, a building which has been rented by the British Woman's Temperance Association, accommodating seven guests. This is intended for women of the better class needing other help to reform than their own resolutions. Its entire conduct will be that of a home wherein comfort and refinement abound. The managers, knowing full well the value of the exercise of a spirit of sympathy and helpfulness, have arranged to establish, during the summer months, a holiday home for poor children from London, within walking distance of the Mansion, whose inmates will, with Lady Somerset, form a council for management, doing all they can to forward the happiness of the homeless little ones.

The profits arising from the Mansion are to be expended in the support of a home-farm for poorer women in the thrall of the drink habit. For this purpose a large farm has been secured in Surrey, on

which cottages are now in process of erection, and a little village is rising, clustered around a main building. Each cottage accommodates a group of women with a matron, and thus a small family circle is formed, which will enable the sister in charge to deal individually with her patients, and remove from the undertaking all the features of an "institution."

The women will dine together in the main building, but their other meals will be taken in the cottages, a more domestic life being secured in this way. The patients will be employed on the farm in poultry-raising, fruit-picking, bee-keeping, flower-growing, and dairy work. Where patients can afford no payment, they will be taken free. One cottage will be set aside as a nursery for infants, in order to enable mothers to become inmates of the home without being parted from their babies.

Besides these, there is to be an intermediate home for ladies' maids, the wives of small shopkeepers, etc.

Patients will be admitted only upon a pledge to remain at the Home under entire abstinence for at least twelve months.

The plan commends itself as thoroughly practical, like all Lady Somerset's charitable enterprises. When it is carried out, magistrates will be able to assign drunken and disorderly women to this reformatory instead of to short terms of imprisonment, from which they come forth nothing bettered, and usually ready to commit again the same offense for which they were confined.

Offspring of Drunkards.— If the evils of intemperance were limited to the lifetime of the drunkard alone, the consequences, however disastrous, would not yet be so direful as when viewed in the light of heredity. The children of drunkards rarely possess normal constitutions. A specialist on this subject has tabulated his observations in the *Quarterly Journal of Inebriety* as follows, basing his investigations on twelve families of inebriates and twelve of temperate people: —

	Drinkers.	*Temperate.*
Number of children	57	61
Deaths under one week old	25	6
Idiots	5	0
Dwarfs (stunted in growth)	5	0
Epileptics	5	0
Chorea, ended in idiocy	1	0
Deformed and diseased	5	0
Hereditary drunkards	2	0

Another writer states that "recent studies of alcohol cases show that over sixty per cent. are directly inherited."

Effects of Smoking on Physical Development.— Dr. Jay W. Seaver, of Yale University, has made some interesting observations regarding the effects of smoking on the physical development of the body. The *Gymnast and Athletic Review* gives the following results of his experiments: —

"After experimenting on 187 students, he found that the weight of non-smokers increased, on an average, by 10.4 per cent. more than that of the habitual smoker, and by 6.6 per cent. more than that of the occasional smoker. The height of the non-smoker exceeds, by 24 per cent., the height of the habitual smoker, and by 14 per cent. that of the occasional smoker. The chest measurement of the non-smoker exceeded that of the habitual smoker by 26.7 per cent., and that of the occasional smoker by 20 per cent. But the greatest difference noticeable was that of the lung capacity, which was 77.5 per cent. more favorable in the case of the non-smoker than that of the habitual smoker, or by 49.50 greater than with occasional smokers."

These results have been amply con-

firmed by Professor Hitchcock, of Amherst College, who "made his observations with students of that college during one year, the smokers being separated from the non-smokers. The result was that the non-smokers increased in weight 24 per cent. more than the smokers, had grown 37 per cent. more, and their chest measurement was greater by 42 per cent. than that of the smokers. The lung capacity was also considerably more favorable with the non-smokers than with the smokers."

The Cigarette Must Go.— An editorial in a recent issue of the *Union Signal* says: "We note with satisfaction the growth of the movement for the suppression of the cigarette. Chicago school teachers have begun a vigorous crusade against this evil, which a leading city daily declares is 'sweeping through the schools like a scourge, and leaving a wake of havoc and incipient wreckage.' When the two great educators of American citizens — the public school and the daily newspaper — unite forces for the extermination of the cigarette, the cigarette will go. It is not enough to have laws prohibiting its sale to minors, for the difficulty of obtaining conclusive evidence against violators of the law makes this method of attack comparatively ineffective. The law must be supplemented by watchfulness on the part of parents and by teaching in the schools, which shall demonstrate to pupils the effect of the cigarette habit upon the human organism. The goal to be aimed at is the prohibition of the manufacture of the deadly cigarette."

Tobacco-Using Fathers. — It often occurs, and, indeed, is true as a rule, that the chief effects of the use of tobacco are not seen in the man who indulges the habit, but appear in his children. Whence came such a vast army of nervous, sickly, yellow-faced young women? Inquire, and learn that their fathers were tobacco-users, and you have the secret. They have poured out their children's vitality in reeking streams of tobacco juice, and puffed it away in clouds of odorous smoke.

A terrible inheritance of constitutional weakness, nervous debility, and general incapacity for enjoyment, does the tobacco-using father entail upon his children. Most strikingly applicable are the words of Ezekiel, "The fathers have eaten sour grapes, and the children's teeth are set on edge."

With reference to the same subject, the renowned Sir Benjamin C. Brodie said, "No evils are so manifestly visited upon the third and fourth generations as the evils which spring from the use of tobacco." — *Anti-Tobacco Gem.*

I KNOW of no single vice which does so much harm as smoking. It is a snare and a delusion. It soothes the excited nervous system at the time, to render it more irritable and feeble ultimately. I have had large experience in brain diseases, and I am satisfied that smoking is a most noxious habit. I know of no other cause or agent that so much tends to bring on functional disease, and through this in the end to lead to organic disease of the brain. — *Dr. Solly, Surgeon of St. Thomas Hospital, England.*

AN English physician says: "A boy who early smokes, is rarely known to make a man of much energy of character, and he generally lacks physical and muscular, as well as mental, energy. I would particularly warn boys who want to rise in the world to shun tobacco as a deadly poison."

MENTAL OVERSTRAIN IN EDUCATION.

In a recent address before the British Medical Association, Dr. G. E. Shuttleworth called attention to some of the harmful results caused by the indiscriminating educational methods in operation in the public schools, and the necessity of differentiating the capacity for mental work in girls at certain physiological periods. He states as follows: —

"With some so-called educationalists, I fear the idea still lingers that it [education] consists of cramming the mind with as much of as many subjects as possible. . . . A smattering of philology, however, will serve to show that the word 'education' means not 'putting in,' but 'drawing out;' and, bearing in mind the physiological interdependence of bodily and mental development, we may say that true education consists in processes of training which will produce in a given individual the most favorable evolution possible of all the faculties both of body and mind. A rational educational system will of course recognize the fact that all children are not cast in the same mold; that there are inherent, often inherited, differences in the pupils' powers, and that, to obtain the best results, instruction must be adapted to idiosyncrasies and proportioned to varying capacities. . . . From the medical standpoint we shall reply in the affirmative to the query of Plato: 'Is not that the best education which gives to the mind and to the body all the force, all the beauty, and all the perfection of which they are capable?'

"Overpressure in education may in brief be described as a neglect of the principles just set forth,— a neglect which cannot fail to lead to mental overstrain. Thus a cast-iron code, imposing for each year of age a definite standard of acquirement, heedless of the varying capacities of children, could not fail to produce it. A disregard of physical conditions underlying mental evolution, and of critical epochs of development, especially in the female sex, affecting capacity for exertion, is another efficient cause, and the undue excitation of the unstable nerve-cells of a child of neurotic heredity, to such a pitch of activity as might be harmless in a normal child, will, in the case of the former, be apt to constitute overstrain. Overpressure, indeed, is not an absolute quantity, but has to be estimated in relation to the personal factor in each case. It may, therefore, be defined in terms of educational work as that amount which in a given case is likely to produce excessive strain of the physical or mental system, or both. . . .

"It has been well remarked that puberty with girls is a period of profound nervous and neuro-psychological import. . . . Many a weak woman could, if she only knew, trace back her weakness to an overstrain at this period of life. There is too often a tendency to subject to serious and exhausting study, girls of from twelve to fifteen years of age just at the epoch when they should have the minimum of schoolroom work and the maximum of outdoor exercise and recreation. . . . In these three points, then; viz.: (1) excessive hours of study, especially during spurts of growth and development; (2) deficiency of systematic outdoor exercise and recreation; and (3) disregard of physiological functions differentiating the capacity for work at certain times of girls as compared with boys, I think the high-school system needs amendment."—*Popular Science Monthly.*

School Hygiene.—The *British Medical Journal* suggests that one of the measures of hygiene in our primary schools is more likely to be instigated by a desire on the part of parents to protect their children from ringworm upon the outside of their children's heads than from any desire to prevent injury to the inside of their heads. The great liability of the intrusion of infectious disorders is, according to the editor of the journal above mentioned, one of the greatest difficulties in the way of national education in England; and Mr. Hutchinson, an eminent English physician, has recently called attention to the great prevalence of ophthalmia, not only in the primary schools, but in schools of a higher grade. The cause is thought to be the common use of towels. There certainly could be found no better medium for the communication of infectious diseases of the eyes and head than the use of a common brush or comb and a common towel in a school.

This fact was long ago recognized in this country, and in our best schools this source of contagion is eliminated by the disuse of common toilet articles.

The editor of the *British Medical Journal* makes the very wise suggestion: "Considering the great laxity with which ordinary children regard *meum* and *tuum* in the lavatory, we would strongly urge parents to make their children clean before they start in the morning, and definitely forbid them to wash at school." No better advise could be given to parents who are in the habit of sending their children to school unwashed.

Sanitary Dusters.— In a paper on the hygiene of schools, Dr. Friend, of Milwaukee, Wis., calls attention to the use in schoolrooms of the pernicious feather duster which simply displaces the dust and sets it in motion. He suggests, in substitution, the use of damp gauze, which gathers up all the dust, and, on account of its cheapness, can be burned, or, if desired for further use, can be washed or sterilized by boiling.

Germ Diseases Propagated by Means of School Slates.— The *National Board of Health Magazine* thus calls attention to a danger recently pointed out by Dr. Ferguson in the indiscriminate use of slates among school children: —

"The common practise which prevails in schools is to hand the slates to the children without any attempt being made to ensure that each child shall have the same slate time after time. The result is inevitable. The first thing that the child does is to clean the slate by means of the finger wetted with saliva. In this process, of course, the finger travels many times from mouth to slate, and vice versa, and thus conveys to the mouth any material which may happen to be upon the slate. Thus, if a child happened to be suffering from tuberculosis, the tubercle bacilli might be readily conveyed to the mouth of another healthy pupil, and the same contingency would be likely to happen, perhaps, in all probability, with greater effect, if the disease were to be diphtheria.

"Hence it is obvious that as long as children have to depend only upon their fingers and saliva for cleaning their slates, this evil will continue. But a very simple remedy would be to provide a piece of sponge, firmly attached to a string, with each slate, taking care that the sponge was dampened in water previously to the beginning of each session. A practical point of this character is nothing more than a self-evident necessity in these days of highly standardized hygiene and sanitation."

THE FATHER OF PHYSICAL EDUCATION.

By unanimous consent Adolph Spiess has been acknowledged the inventor of the method and exercise on which all the programs of gymnastics are based to-day. Few schoolmasters have left such deep traces in education, few perhaps have done so much work as Spiess. He taught, in the public school at Burgdorf, history, geography, singing, drawing, and gymnastics — all at the same session. Poor as he was, he would take a three hours' walk every week to the Munchenbuchsee gymnasium, and after two hours of hard exercise he would return, always on foot, tired but not discontented.

Burgdorf is a little town situated in the canton of Bern, Switzerland. Its castle crowns the summit of a hill. One day I I visited the town, went up to the castle, and passing through it to a terrace, sat down under an old linden to admire the landscape and gaze on the snow-capped Alps whitening in the distance. An instructor in the high school of Burgdorf, who had gone with me on this walk, pointed out to me the windows of a room in the castle where Spiess's first school had been. In that room boys and girls had first gone through those exercises which are now part of the training in all public schools. All remains just as it was in 1833, when Spiess came from Germany, full of hope, happy in being called there as Pestalozzi's successor. Spiess tells us how gymnastics were carried on in the castle only in winter and when it rained, but at other times how he would lead his boys out into the open air to exercise in the playground, which is down in the valley, a grassy meadow protected from the sun on the south by a high cliff.

Spiess's best years were passed in that meadow. The four volumes of his work on gymnastics were thought out and put into practise on that playground. An old horizontal beam on two rusty supports, which is still there, is probably the oldest piece of gymnastic apparatus in Europe. — *The Chautauquan.*

"A SOUND MIND IN A SOUND BODY."

Miss Charlotte E. Maxwell, of St. Botolph Gymnasium, Boston, and a pupil of Baron Nils Posse, in a recent interview made the following remarks in regard to the system of Swedish gymnastics, which easily ranks at the head of all systems of physical culture : —

"This Swedish system of gymnastics has been wrought out and derived from mechanics, anatomy, physiology, and psychology. Hence all these branches of science enter into the course of study, which occupies two years, and embraces both educational gymnastics and medical gymnastics. The first, of course, is used in schools and the regular gymnasium ; the second is applied to pathological cases, also malformations, largely by massage. Here in the Priory gymnasium I am using only the former with my classes.

"It would be difficult for me to tell you all I have found in it ; but suffice to say, I believe no other system takes cognizance of so many of the truths of being. In the first place it deals with the pupil as an individual ; you yourself are the unit, without reference to your neighbor, and the aim of physical culture is to round your particular body to its harmonious and well-balanced whole, where the action and development of one part is propor-

tionate to that of all the other parts, and all are under the perfect control of the will. We do not try for big, swelling muscles in legs or arms, but that every muscle of the entire body shall play its rôle in the system with the same freedom and facility as every other muscle.

"Everything is, with us, subordinate to the best posture of the chest and the fullest expansion of the lungs. There is not a movement into which this does not enter. Every movement is really a breathing exercise, and an extra supply of oxygen is thus introduced into the body by this means. We regard good breathing capacity as of greater value than muscular strength.

"There is no reason why a child may not be so trained physically that it shall grow up to manhood and womanhood with a perfectly normal figure, and with all the strength and grace of movement that nature in her plan designed. Nobody ought to be small, low of stature, crooked in a single bone, unequal in the two sides of the body, or left-handed, or round-shouldered, or imperfect in a single item of physique.

"Some of our best work is done in private houses, in a dining-room, for instance, where we have only chairs, a rope possibly, and a stout pole. I have seen excellent progress made with a rope and a broomstick. This I consider one of the best features of the system — its adaptability to every situation and environment. Of course we are able to do more if we have apparatus of one sort or another, yet there are free-standing exercises that no apparatus in the world can ever substitute. We believe that these free exercises develop co-ordination and general physical culture, while the movements of applied apparatus cultivate force and localized effects.

"The fundamental principle, according to Ling, is the oneness of the human organism, and the harmony that ought to exist between mind and body. All our movements being guided toward certain ends, one of those ends is the psychological, which with the physiological and physical receives its due share of attention. For instance, you will find it laid down in the text-books on general kinesiology that respiratory exercises produce the psychological effects of exhilaration and moral repose; shoulder-blade movements produce localization of thought, concentration of mind; heaving movements, consciousness of power; leaping and vaulting, courage, and appreciation of effort, with presence of mind. The virtuoso with his violin, the leader with his orchestra, are only symbols of what we believe every human being ought to be with respect to his own organism. And every nerve and fiber ought to respond as musically and sympathetically to his will as the chords and cadenzas of the instruments to the skill of the artist and director."

A LESSON IN PHYSICAL CULTURE.

It was a dull, rainy day outside, and even if the teacher's face was twice as bright as usual to make amends for the external gloom, her pupils were not making much progress in their work.

Homer was cross because he had a sore throat, and the teacher would n't let him wade in the little pools of water outside during recess time.

Fan could n't get her spelling because her head ached so hard she could n't think at all.

Kate's pencil was lost, and her best friend, Dora, just across the aisle, had

refused to lend one of hers, although she had three long ones in her box. Kate, the careless one of the room, hated to call the teacher's attention to this fresh loss. She would be sure to say, as she had before : —

"Another lost pencil, Kate? I am afraid you were not at home when Fairy Order called at your house this morning, and so she has been helping some other girl look after her things. Be sure you don't miss her to-morrow."

Miss Ayer noticed the doleful faces and the general air of depression, and said : "You may all close your books, and Homer may open the windows on his side of the room, and the door, and we will march, at the tap of the bell, around the room, drawing in deep breaths of air as we go."

When this was over, and they were again all seated, the teacher told the following story : —

"Last summer I visited a famous school which is more than a hundred years old. In one of the galleries hung portraits of many fine-looking men and women who went to this school when they were young. All of them have fine, graceful figures. As the principal saw me looking at them, she said : —

"'Our school is noted for the health, ease, and grace of its pupils.'

"I asked her for the secret, and she replied : —

"'Pure air and proper breathing help our pupils to stand and walk well, and to become healthy and graceful.'

"'That is something for me to remember,' I thought to myself. 'I 'll find out more about it, and tell my boys and girls when we are back in school next fall, and we'll see if they can be as straight, healthy, and graceful when they are through next year's work.'

"Then I asked this principal many questions, which she kindly answered, and just before I came away she told me about a famous breathing exercise which had been in use in that school ever since it started. Suppose we all take it now, while I tell you about it, and perhaps some of our round shoulders will go back into place before we know it.

"Open all the windows again, Harry, if you please, while we are putting our desks in order and getting ready. Now then —

"Position! All stand with heels together and toes at an angle of forty-five degrees, arms down at the side.

"1. Raise arms to the level of the shoulders, with bent elbows, holding them in front of the chest so that the middle fingers just touch, and draw in a deep breath, rising slowly meanwhile, so as to stand on the toes.

"2. Let arms descend back of the head, keeping fingers together as long as possible; at the same time bring the heels back to the floor, and breathe out.

"That was nicely done by you all," said Miss Ayer. "Now let us try it once or twice more, so that you will not forget how to do it when you are by yourselves. It will be a good exercise to warm you when you first get up these cold mornings, and will give you a good appetite for breakfast if you do it in the fresh air. Try it and see.

"Now Hugh may close the windows, and I think we are ready for lessons again."

And sure enough, all the frowns and cross looks had taken to themselves wings and flown away.—*School Physiology Jour.*

HOW TO PREVENT CONTAGION IN SCARLET FEVER.

BY KATE LINDSAY, M. D.

SCARLET fever belongs to a class of fevers distinguished by the term "eruptive," a prominent symptom of the disease being an eruption of the skin. Next to smallpox, scarlet fever is the most dangerous of eruptive fevers, and is specially fatal in early childhood, two thirds of the deaths from it occurring before the age of five years. After the age of ten the disease is much less liable to be fatal, and after twenty-five but few persons contract the disease at all. That it is a germ disease has been determined, though a decision has not been reached as to just what the microbe is like.

Scarlet fever is directly contagious from one person to another. Like all such diseases, it is more prevalent in winter than in summer, because children are then more confined indoors. The infecting matter is present in all the secretions and excretions, also in the hair, and in the scales from the skin during the scaling stage. It is said that certain of the lower animals are subject to the disease, especially cows and dogs, and that sometimes an outbreak of the disorder is due to this source. The disease-producing germs usually find entrance into the blood through the mucous membrane of the throat. The period of incubation is short,— from twenty-four hours to five, or at the farthest, ten days, most cases occurring within four days after infection.

At the outset, the disease is not contagious except within a few feet of the patient, but after the scaling process begins, germs may be conveyed a great distance, and retain their vitality a long time, if kept covered away from the air and sunlight in clothing. The disease has thus been carried hundreds of miles, and transmitted to others after many months have elapsed. It will also linger in the paper and plaster of houses for years. In one case where a family had scarlet fever, a servant girl who had nursed the children, finding a new situation for the next summer, packed her winter clothing away in a trunk, which was not opened in the new place until cold weather came again. When she opened her box of winter clothing, a little girl of four was in the room, and, childlike, arrayed herself in a shawl which the servant girl afterward stated she had often wrapped around the sick children in her former place during their sickness with scarlet fever. In just three days from this the little one sickened from this disease, dying within the week ; and her elder brothers and sisters, four in number, all had the disease, although in a milder form.

There are three forms of scarlet fever: The mild, mostly seen in children over ten years of age, and adults ; the malignant, which frequently appears in children under five years, especially those living in tenement-houses where they are subjected to all kinds of bad hygiene; and a third form, intermediate between the other two, in which the throat is most markedly affected, and in which there may be a membrane formed similar to that of diphtheria, the glands of the neck often becoming inflamed and suppurating.

Many people have the idea that while scarlet fever is a very deadly disease, scarlatina, or as it is sometimes called, scarlet rash, is so simple that there is no need of keeping either themselves or their children away from it ; and in this way many epidemics of the malignant form of the disease come from mild cases. A young man

in a country store, selling everything from candy to ready-made clothing, contracted a mild form of the disease when home for the midwinter holidays; and having only a slight sore throat and a mild eruption, followed by some scaling, simply put a red flannel cloth around his neck, and went on selling the housewives groceries and calico, and the school children candy and fruit, all through the course of the disease, never thinking himself sick enough to stop his work. The result of this one mild case of scarlatina was the illness of sixty children in that country village and the farming community around it. Seven of the cases proved fatal.

Milk is often infected by those who do the milking. Coming in contact with the sick, or being themselves suffering from the disease in a mild form, they infect the milk from their hands and clothing. Even the can in which it is received may be infected by being kept in the vicinity of the sick or being handled by those who are caring for them.

Ready-made clothing often becomes a source of infection by being made after the sweating system in tenement-houses, where the mother sews and cares for her sick children in the same room.

Cats and dogs are often kept in the sick-room to amuse the sick children, and afterward permitted to run at large, thus coming in contact with other children, and spreading the disease.

Until within the last twenty years practically nothing has been done in the way of isolation and quarantine to limit the infection from this disease. During the last decade, isolation has been more common, and greater care taken not to expose young children; and it is said that the mortality from this source has decreased somewhat.

The first duty of the home nurse, who is usually the mother, is to keep the children from taking the disease; and, as she cannot prevent infection unless she knows what it is and how it spreads, it becomes her first duty to make herself intelligent on these matters. If she knows what infection is, and by what avenues it is likely to invade her home, she can, by using preventive measures, shut it out. Whenever a case of sore throat, with any symptoms of a rash, appears in the family or school, the first thing to do is to isolate the sick one from others until a physician has been consulted, and it has been fully determined just what the disease is. Because a ten-year-old boy or girl has contracted the disease at school, is no reason why the little four-year-old at home must have it too. The older brother or sister would have a good chance for life, while to the little one the disease would be likely to prove fatal.

Not only should the patient be shut away from all others in the house, but all communication with the other members of the family should be stopped as well. Some one of the family must be detailed as nurse,— father, mother, or friend,— unless the services of a trained nurse can be secured; and whoever takes charge of the case must not mingle in any way with the rest of the family, especially the children. Whenever the nurse leaves the room to take a walk out-of-doors, she should change her clothing completely, and put on that which has been kept outside of the sick-room. Even her shoes ought to be changed; and while in the sick-room she should wear a cap of some close-textured cloth which will protect the hair from gathering the infection, and this should never be worn outside of the room. Her hands and face should be washed in a mild solution of boracic acid, or in a 1–8 solution of peroxide of hydrozone. Even after this precaution she should not

handle or let children come near her. Even persons who have had a previous attack of the disease often have a mild sore throat when in the sick-room inhaling the contagion constantly. This, while not causing any serious illness to themselves, may be infectious to others. This is one reason why a mother with young children should not care for any one ill with the disease.

In the country, where it is usually the custom for the neighbors to take turns in sitting up at night and watching with the sick, it would be much better for them to club together, if necessary, and raise the money to hire a trained nurse to look after the sick, instead of allowing mothers of children to expose themselves and their children by visiting the sick-room. As sanitary knowledge increases, I believe the time will come when every village and town will have in its employ one or more nurses that can be called upon whenever needed, and thus the work of sick-nursing be done without exposing other families to the contagion. In the end it will be found to be the best of economy. With a good nurse in the sick-room to take the responsibility and care, and one member to help and relieve her so that she may get out for a walk and several hours' sleep in the twenty-four, neither the other members of the family nor the neighbors would need to come in contact with the sick. Thus no other case need occur either in the family or the community.

(To be continued.)

Hints to Ocean Travelers.— Prepare for the voyage by careful dieting, and be especially careful not to overeat for a week or more before starting. Secure a free action from the bowels every day.

Do not, as you take the first meal on board, say, as the writer has heard so many passengers express themselves, "Now I am going to eat a square meal and get my money's worth; for there is no telling when I shall be able to take another meal." People never miss getting what they expect in such cases.

Do not have hot tea or coffee brought to you before getting up in the morning. The writer has seen a whole cabinful of people made sick in a few minutes, none of whom had a symptom before they took this hot slop. Instead, take a cloth wet with ice-water, or the coldest water you can get, and rub the face and neck and throat well, and put on a cool compress for ten minutes over the stomach, and wash out and disinfect the mouth and nose. Then swallow a mouthful or two of either very hot or very cold water, eat a piece of ship's hardtack or a dry cracker; put on your dressing-gown and slippers, and go to the bath-room and take a cold sea-water bath, or dress and go up on deck. If your stomach feels a little squeamish, eat your meals up there for the first day or two, where the air is fresh, and unladen with smells of sickness.

If looking at the water makes you dizzy, don't lean over the railing and look at the waves near by. Look upward and outward.

If so unfortunate as to have an attack of sea-sickness, don't fast too long; eat something dry three or four times a day, if possible in the open air.

Do not neglect the daily cold sea-water bath, or still better, a cold shower. It is a famous stimulator of digestion, and prepares a person to enjoy his breakfast.

Eat very lightly at night, or better still, take only two meals a day.

If inclined to sea-sickness, do not go where others are suffering from it, as it is

very contagious to some people, from the mental impression made on the nerves.

K. L.

The Trained Nurses' Settlement.— The trained nurse is doing a great work in the tenement-house districts. In addition to the college settlement and the university settlement in New York, there is a nurses' settlement. Six bright and energetic young women, graduates of various hospitals, occupy a modest but cozy house in Henry Street, on the East Side; they go into the homes of the poor, tidy them up, minister to their physical needs, and do what they can to help them. Besides this, they have a free dispensary, where they give medicine to those who ask for it, with presents of clothing for the babies. This noble band of young women are doing splendid work, for the nurse becomes the friend and counselor and aid of her patients in many ways. Nursing is the opening wedge to all hearts. There is no sectarianism in this settlement, Jews and Christians being treated alike. The invasion of the trained nurse in the slum districts has already been of decided benefit. There are many phases in the life of a trained nurse, and this is a side that has hitherto been neglected, as the poor have been subjected to the invasion of missionaries, who, while well intentioned, do not provide for their bodily wants.

The trained nurse can adapt herself to the surroundings of her wealthy patients, and she is equally at home in the tenement-house. The vocation is one to be proud of; a woman of education and refinement can earn a competence, and at the same time be doing noble work for others.— *Godey's Magazine.*

O, THE delight of the fresh blue and white figure, so willing to serve, and to ease pain, when pain can be eased! What a comfort it is to have some one know, without being told, when the bottom sheet of the bed has come up from the foot and needs straightening; for that bottom sheet, when it wrinkles under the heels, can cause more discomfort than many a pain! Suppose you do say *no* to many a wish of mine. I have learned, O trained nurse, that both your *no* and your *yes* mean my good, and that you are to be trusted with my fate so far as it lies in your hands.— *Hospital Review.*

IT has been found that colored women have a special aptitude for nursing. They are generally very strong, and are by nature good-tempered, cheerful, and sympathetic. In view of this, the New Orleans University Medical College decided a few months ago to open a training-school for young colored women. It is believed that these trained nurses will be of the greatest value to physicians and their patients.

Here is a field of opportunity for a most effective missionary enterprise in the establishment of training-schools for nurses in various parts of the South, where there are thousands of young colored women who might be advantageously trained for work as visiting nurses in connection with hospitals and medical missions.

ONE whose experiences have fitted him to speak with authority says: "The trained nurse excels in every field which she enters. She becomes the best matron, the best governess, the best companion, the best wife and mother, the best missionary." It is said that the great Chinese Viceroy recently stated that of all the foreign forces that might be employed to conquer China, the only one likely to succeed was the trained nurse as a missionary.

THE HYGIENE OF THE NURSERY.

BY J. H. KELLOGG, M. D.

(*Continued.*)

HOW TO FEED A BABY.

THE greatest mortality in infants is during the hot season of the year. Stomach and bowel disorders prevail constantly, and are the principal cause of death with children under two years of age. That improper feeding is the active cause of the great prevalence of this class of disorders, and the great mortality of children during the hot months, has been well established by constant medical observation. The higher temperature is simply a predisposing cause, it rarely being so great as to become in itself alone an actual cause of sickness. The following suggestions, carefully followed, have been the means of saving many little ones: —

Milk.— Milk is the natural and proper food for children from infancy to the age of twelve or eighteen months. Starchy foods cannot be digested, owing to the fact that the digestive element of the salivary secretion is not formed in sufficient quantity during the first few months of life to render the child able to digest farinaceous foods, such as potatoes, rice, fine-flour bread, and the like.

The cutting of the teeth is an indication of the ability of the child to begin to digest starchy food. It should not, however, be given potatoes or vegetables of any sort, but may be given thin bits of bread which have been dried or baked in the oven until slightly brown, or very thin wafers made of flour and water, or with the addition of milk or cream, but without yeast or baking-powder. These will be very crisp if made from a stiff dough well kneaded, rolled very thin, and baked until slightly brown.

When the child has attained the age of eight months it should regularly take some dry food. The advantages of this are: (1) to encourage the development of the teeth by properly exercising them; (2) to secure a proper admixture of saliva with the food; (3) to erect a safeguard against overeating.

A vigorous child taking all its food in a fluid or semi-fluid state, especially when fed with a spoon or allowed to drink from a cup, is very likely to eat too much, and to suffer from indigestion as the consequence. Overeating is not a very serious matter in a young infant, as the stomach readily rejects any excess of food; but as the child becomes older the stomach no longer protects itself in this way, and consequently overdistension of the stomach with the gases resulting from the fermentation of food, may give rise to permanent dilatation of the stomach, a condition which often begins in early childhood, laying the foundation for lifelong invalidism.

At the end of a year the child may begin to eat regularly, at two of its four meals, the various preparations of cooked grains. Care should be taken that the grains are very thoroughly cooked. Oatmeal should be cooked at least three or four hours. Rice, wheat grits, and cornmeal are more readily digested than oatmeal. The grains may be eaten with cream, but should always be accompanied by a bit of zwieback, or twice-baked bread, in thin slices, granose, or toasted water crackers, so that the child will have something hard, requiring the exercise of its teeth in mastication. Granola is also a most excellent food for young children.

Stewed fruit of almost any kind, not too acid, may also be taken; but very acid fruits should be avoided, especially in connection with starchy food, as they interfere with digestion. Some fresh fruits are also wholesome. The best fruits are very ripe peaches, baked sweet apples, fresh strawberries, blueberries, raspberries, blackberries, very ripe pears, stewed raisins, the skins and seeds being removed, and prune purée. Bromose, nuttose, and nut cream are also exceedingly wholesome foods for children as well as for adults.

Foods to Be Avoided.— Meats of all kinds, butter and other fats, rich gravies, highly-seasoned foods, fried foods, griddle-cakes, pastry, doughnuts, rich or sweet desserts, unripe, very acid, stale, or wilted fruit, bananas, pineapples, tomatoes, celery, cauliflower, preserves and pickles, and such coarse vegetables as turnips, carrots, parsnips, squash, sweet potatoes, onions, spinach, lettuce, nuts, and candies, should not be given to a young child.

After two years, baked potatoes, peas, beans, asparagus, and nearly all ripe fruit may be allowed, together with well-cooked grains of all varieties, care being taken to give dry food with soft grain preparations, to insure the proper mixture of saliva with the food. Nuts, if well cooked or made into a meal, are excellent for children, but raw nuts should not be eaten by a child too young to understand the necessity for thorough mastication.

When a child takes four meals a day, the second and fourth meals should consist of milk only, and it should be instructed to take milk, as well as other foods, slowly. The admixture of saliva with cow's milk is as necessary as with starchy foods, for the reason that by this means the milk enters the stomach slowly, and the curds formed are small and fragile, instead of being large and tough, as when the milk is swallowed rapidly.

As a general rule, an infant should be fed once in two or three hours during the daytime and once at night until one month old. After this time it should not be fed at night, and should take its food no more frequently than once in three hours during the daytime until four months of age. Between four and eight months the intervals should be gradually prolonged to four hours.

The following table shows the quantity of food required by an infant at different ages, and the number of feedings per day: —

Age of Child.	1 W.	1 M.	2 M.	3 M.
Amount of each feeding, in ounces	1	1½–2	3	4
Number of feedings	10	8	6	6
Amount of food daily, in ounces.	10	12-16	18	24
Interval between feedings, in hours	2	2½	3	3

Age of Child.	4 M.	6 M.	9 M.	12 M.
Amount of each feeding, in ounces	5	6	7½	9
Number of feedings	6	6	5	5
Amount of food daily, in ounces.	30	36	40	45
Interval between feedings, in hours	3	3	3½	3½

As a rule, the amount of milk secreted by a healthy mother is just sufficient to meet the demands of the infant. When insufficient, the mother's milk must be supplemented by suitable preparations of cow's milk. If the mother's milk is furnished in excess, as indicated by inability of the child to take as much as is furnished, or by regurgitation from overfeeding, the length of time which the child is allowed at the breast should be diminished. If the milk flows too freely, the mother may restrain it by grasping the base of the nipple with the fingers. If it does not flow freely enough, the flow may be encouraged by grasping the breast and making pressure in such a manner as to assist the child.

The following table gives a convenient program for feeding at different ages: —

1st week.	1 week to 6 weeks.	6 weeks to 4 months.	months. 4 to 8	8 to 12 months.
7 A. M.	7 A. M.	7 A. M.	7 A. M.	7 A. M.
9 "	9:30 "	10 "	10 "	10:30 "
11 "	12 M.	1 P. M.	1 P. M.	2 P. M.
1 P. M.	2:30 P. M.	4 "	4 "	6 "
3 "	5 "	7 "	7 "	10 "
5 "	7:30 "	10 "	10 "	
7 "	10 "	3 A. M.		
9 "	3 A. M.			
12 "				
4 A. M.				

Circumstances may, of course, render some modifications of the foregoing program necessary. For example, in many children the meal at 3 A. M. may be omitted after two or three months, and the meal at 10 A. M. may be dropped after six or eight months.

The temperature of the food for a young infant should be from 90° to 100° F.

(To be continued.)

THUMB-SUCKING.

In answer to a question on this point, "Materna" answers in the March *Mother's Journal* as follows: —

"The old-fashioned remedy for thumb-sucking was to put on bitter aloes or a solution of quinine, but of course it will soon rub off, and I cannot recommend it. If it is a confirmed habit, and the child has a strong will, he will soon learn to rub it off, and then put it in the mouth, when in a short time it becomes just as comforting to the child as before. Pepersauce and similar hot things have been used, but without really doing any good. It often happens that the hand treated with the peppersauce is used to rub the eyes with, and in consequence, baby has inflammation of the eyes.

"If your little girl has sucked her thumb for a considerable time, you must not expect to overcome this difficulty very soon. If you notice, I believe that you will see that she usually sucks her thumb when she is tired or hungry or sleepy, and not when she first gets up in the morning as much as the latter part of the day. No matter what part of the day it is, when you see her put her thumb into her mouth, take her up in your arms and show her something she likes very much. Every child of two years has found some one thing that she prefers to do — either looking at pictures or having some particular toy to play with. Whatever it is, have it put out of sight until this emergency arrives, and then bring it out. Simply insist, by making it enticing to her, that she take the book or plaything in the hand that she sucks.

"When it comes to getting her to sleep without her thumb, it will probably be hard work. The two things needed to accomplish your purpose are patience and perseverance, and you will succeed. Most babies that suck the thumb are what are called 'good babies.' It will be hard to get her to sleep after you deprive her of her 'comfort,' if she has been in the habit of being put down in her crib and going to sleep with it. Lay her in her crib as usual, and then sit down beside it and hold the little hand, and either croon a soft lullaby or tell a simple story — anything that will make her forget that her 'favorite' is a prisoner. To prevent her sucking it after she is asleep, put on a white woolen mitten and pin it securely to her night-dress sleeve with a small safety-pin. She will probably not like the feeling of the wool in her mouth, and only get it as far as her lips. She will then probably wake up and cry, and you must again sing her to sleep, meanwhile holding on to the thumb. If she then tries to suck the other thumb, carefully hold both hands.

"Breaking this habit will disturb her nights as well as yours for some time; it all depends on how strong the habit has become. Always treat her very gently; never strike her or in any way arouse angry feelings. It is now deemed wisest to keep all undesirable traits of character as dormant as possible instead of antagonizing them. Where force is used, it is apt to drive a child away from the mother, and it will hide away in various parts of the house, and when found, will always be sucking the coveted thumb. Call no attention whatever to the thumb; contrive something for the child to do or to hear that is so interesting that the thumb is forgotten for the time being. Keep on diverting her until it is forgotten; only do not expect results to come too quickly; just keep on doing your part, and some day you will realize that the thumb is entirely forsaken."

THE INFANT'S BATH.

THE details of the infant's bath are very important. Without extreme care in protecting the body from cold, harm of more or less serious nature may result. The nurse should have a small rubber sheet, or, better still, a rubber apron, for her own protection. Over this may be spread a double bath blanket in which the child may be protected while being dried. A still better device consists of two large pieces of flannel buttoned or sewed to the waistband of the nurse, like an apron. The lower one may be used to hold the baby in, and the upper one to cover it while the towels are being used.

The character of the bath is also of importance. An oval tub of tin or porcelain, with one sloping end, is serviceable. Such a tub may be placed on a low stand or table, to save unnecessary strain upon the back of the nurse, and to diminish the danger of accidents to the child by its slipping from the hands. A portable bath-tub of folding pattern is a great convenience. It can be readily put out of the way at home, and is easily carried abroad, so that the infant need not be deprived of its bath if traveling is necessary.

A home-made folding bath-tub was described not long ago in *Babyhood*. The legs, which are crossed, are thirty inches long. These are attached to two side bars at the top. The tub itself is made of a single piece of white rubber cloth. There is a hem at each end, and through these hems broad tapes are passed, and securely fastened to the ends of the side bars. The sides of the rubber cloth are tacked to the top of these side bars; a small plait at each corner gives the tub its shape.— *The Nursing World.*

Tenderest Part of the Face.— Nine out of ten persons, if asked what is the most sensitive part of the body, will reply, "The tip of the tongue." But this is not the case. Those engaged in polishing substances that require a very high degree of smoothness, invariably use the cheek-bone as their touchstone for detecting any roughness. An ivory article that may feel perfectly smooth if rubbed gently against the chin or touched with the tip of the tongue, will often feel appreciably rough when applied to the cheek bone. Professional boxers, invariably rub well into the skin around the cheek-bone a solution of alum and water for the purpose of hardening this most vulnerable part.

SOME NEW RECIPES.

BY MRS. E. E. KELLOGG.

WITH people who for various reasons desire to avoid or lessen the use of milk, cream, butter, and other animal fats in the preparation of their food, the vegetable fats obtainable from nuts are becoming very popular. These, as found in the nut butters and meals prepared by the Sanitas Food Company, can be utilized for nearly every purpose for which cream and butter are ordinarily used; and as the fat in nut butter is in a state of perfect emulsion, it does not interfere with digestion as other butter is apt to do.

The following recipes, prepared by graduates of the Sanitarium Cooking-School, are some of the many ways in which these products may be used: —

Nut Meal with Granola.— To one quart of cold water add one-half cup of almond meal and a little salt, if desired. Heat to boiling, and cook for half an hour, then stir in slowly, enough granola to thicken the liquid; about one and one-half cups will be needed. Serve hot with cream or nut cream.

Nut Meal Paste for Pies.— For one large pie, mix together one and one-fourth cups each of sifted almond meal and flour. Make into a dough with one-third cup of cold water, gather the fragments together lightly, and roll out without kneading.

Sour Salad Dressing.— Rub two level tablespoonfuls of nut butter smooth with two-thirds cup of water, adding the water by spoonfuls, and rubbing each well in before adding more. Add to this, when well mixed, one teaspoonful of sugar, one-half teaspoonful of salt, and two tablespoonfuls of lemon-juice. Let all boil together a moment over the fire. Remove and cool, and it is ready for use.

Sweet Salad Dressing.— Prepare the same as the preceding, except that two tablespoonfuls of sugar are used, and only one-fourth teaspoonful of salt. When a yellow color is desired, have the beaten yolk of an egg in a bowl, and just as you remove the dressing from the fire, pour it over the egg, a little at a time, stirring well at first. When the egg is used, a little less water will be required, and more lemon-juice may be added. This is very nice for fruit salads.

Hard Sauce.— Rub together equal quantities of nut butter and sugar, with a little salt. Add water to make it smooth.

THE SCIENCE OF NUTRITION.

THE interpretation which we may put upon the developments of modern scientific discoveries along the lines of physiology, bacteriology, pathology, pathogeny, microscopy, chemistry, and the other investigations which bear upon the needs and conditions of man, is that we have a problem before us which is of the greatest vital importance to our physical, mental, and moral welfare. Even our spiritual life is not beyond the influence of this great problematic discussion which proceeds from the laboratory. We can no longer disregard the statements and prophecies put forth from the workers in the laboratories of investigation. They have promulgated truths, and these cannot be refuted, however much of an effort may be made to disbelieve them because they have proved unpleasant.

It is a patent fact that the larger number of modern discoveries touch some point of physical being as they bring their search-lights to bear upon defective methods or conditions. In reality we would seem to be in these days under the scrutiny of an army of sharpshooters, whose chief aim is to expose our weak points; for never before in the history of the world has human rank and file been so much the object of a steady fire from the standpoint of the sciences as to-day. In both continents there is an army of investigators zealously using that marvelous bit of crystal, the microscope, from day to month, from month to year, in the endeavor to discover causes and effects in a world which to us seems far removed, but which in reality is within and about us, and, in fact, is ourselves.

The microscope is the enemy of the obscure. It reveals the infinitesimal, and shows us such conditions in our daily living as were never dreamed of. Its bacterial discoveries have made us shrink from its scrutiny. Its revelations in certain lines of manufacture have produced such an exposition of fraud that we can hardly be thankful enough for its beneficence. Along with chemistry it has brought us face to face with the great problem of the science of nutrition. It has awakened us to the fact that there is an intimate relation between success and nutrition, that morality is influenced by pabulum, that life is a mere matter of the infinitesimal carried into broader realms.

That we are in error in our food economy is no longer a vague theme, to be scoffed at by the thoughtless, noticed lightly by the reader, and believed in only by the scientist. It is a substantial fact, easily proved to those who would be doubtful. Professor Atwater, under the direction of the United States Agricultural Department, has given to the people such data in bulletins showing the result of his investigations that any one of ordinary intelligence may fully comprehend, so concise and complete are they.

While there is yet much to learn through experimentation, there is at hand sufficient information to enable us to make very important deductions for personal use. We are told by the best authority that we must come to the realization that "not merely our health, our strength, and our incomes, but our higher intellectual life, and even our morals, depend upon the care which we take of our bodies, and among the things essential to health and wealth, to right thinking and right living, one, and that not the least important, is our diet." It is our good fortune to have learned this — to be told that the science of food reaches to every point on the line of battle for existence.

To the poor man it is everything — strength to work, morality to resist temptation, and courage to forestall calamity. Temperance and peace have little place in the poorly nourished body. Passion and sin have no staying powers back of them when stimulation takes the place of nourishment. Depravity and starvation claim their victims where there is nothing known of what builds the body. Better instincts are forced back because body, mind, and soul are weak, and our half-fed, badly nourished classes are our brutal classes.

Ignorance and waste and misguided notions concerning food values keep the poor woman and her family the slaves of her improvidence. Her food, such as she thinks she must purchase, costs three times its nutritive value, if not more. Bad cooking adds its quota of misery to the deplorable system of purchase, and there can be no health or morality where it reigns. Nature must be satisfied, and the saloon is the Mecca of relief.

A sequence to this ignorance is the depleted system, an easy prey to disease.

Children half-fed die by thousands, and the world goes on flowing in the old channel. Ignorance among the masses, incredulity, conservatism, and indifference among the upper classes, keep us where we are. The poor eat too little, the rich too much. Tradition, the palate, and the appetite reign supreme, while science has begun to roll the stone away from untold misery. It is for us to "keep the stone a rolling," and be willing to recognize the advance army of crusaders who would conquer the world of incredulity and ignorance.

Our greatest problem lies in individual necessity. What to one is enough to another is surplus. Sex and age, occupation and heredity, each must be considered before a régime can be established. The wear and tear of an active body requires a class of nutrients which to one of sedentary habits would be a burden. The brain-worker does not digest an oversupply, but is oppressed, and his capacity for work is impaired. One must learn the constituents of food, their effects and what they produce in the body, their relation to the general standard of physical achievement, and by thoughtful consideration, select the kind suited to his particular case.

When women in the home shall have given the impulse to this study which they gave to the study of parliamentary law, ethics, and the rest of self-culture which has made the woman's club a success for elementary education, there will be hope that the poor may be raised from out the darkness of ignorance, and the homes of high and low be made better, healthier, and happier.

The great movement toward culture has spent its first flush of usefulness, and there now comes a desire on the part of some pioneers for a more practical application of benefits derived; and this is where a grain of seed, well planted, may be expected to grow. While the study of economics is progressing, it is not perfected; nor is any science, so long as this vital matter of nutrition lies upon fallow ground.

The tower of self-education has been raised, but its foundation has no strength or permanence, and without these it must eventually fall into disuse. Our intellectual life depends upon our physical basis. — *M. V. Shaler, in the Chautauquan.*

Relief for India.— There is a movement on foot in Iowa and other Western States to contribute food supplies to the famine-stricken sufferers of India. These same generous people sent train-loads of wheat and corn and flour to the relief of the Russian peasants during the famine some four years ago. On account of their religious scruples, the people of India would not touch canned meats or supplies of that nature; but grain they would most gratefully receive. The Mississippi Valley region still has stores of Indian corn, which will bring the farmer only eight or ten cents a bushel; and in no way can the American people so practically aid the famine sufferers of India as by buying up these great quantities of corn and organizing facilities for its cheap or free transportation to that stricken country.

In washing small dried fruits, such as cherries, currants, or berries, the best way is to turn them into a colander or coarse sieve and stand it in a deep pan of clean water. Thoroughly rub the fruit between the hands, and change the water as often as needed. Finally hold up the vessel containing the fruit and turn on cold water. Then spread on clean towels to dry.

REWARDING CHILDREN INTO GOOD BEHAVIOR.

BY MRS. E. E. KELLOGG, A. M.

Two counter inducements to right conduct largely employed in the training of children are the fear of punishment and the hope of reward. At first thought it seems a much easier thing to reward children than to punish them. It is certainly a much pleasanter task for the parent. Nevertheless, the indiscriminate use of rewards is productive of quite as much harm to the child as indiscriminate punishment. It must be acknowledged that neither incentive is the best motive for right-doing. Children should early learn to fear the sin, the wrong-doing, which is the occasion for punishment, rather than the punishment itself; while the punishment should be looked upon as an aid in helping them to overcome evil.

To do right because it is right should be the underlying principle upon which all right conduct is based. Through fear of punishment or by the hope of reward, we may so govern the child's actions as to secure good behavior upon occasions; but our purpose should not be so much to induce him to do right at any one time, as to train him so he will wish to do right at all times. Again, goodness that is secured by promise of reward or that which is paid for by indulgences and privileges can scarcely be counted genuine virtue.

It is never wise to bribe children to the performance of plain duties. The child who is induced to do or to take some necessary but unpleasant thing through the promise of a stick of candy or a lump of sugar will be less willing to do the same thing next time unaided by the lure of some sweet morsel. Extraneous rewards offered for good conduct do much to stimulate the element of self-love in a child's character. It likewise causes him to regard right-doing as a sort of stipulation or bargain, which, if he but rightly fulfils the conditions thereof, insures to him some pleasure of palate or privilege or possession. "Such treatment tends to divest his mind of all sense of obligation to do right for right's sake, and leads him to feel that it is optional with himself whether he shall do as he was bidden and gain the promised reward, or act his own pleasure and lose it."

Children need to learn to do things which ought to be done, even if they do not want to do them. It is the following of inclination rather than duty that has led many a child to ruin.

An argument often presented in favor of rewarding children is that, "as we are creatures of habit, we are justified in using any means by which good habits may be established. It is argued that the habit of right-doing will remain long after the steps by which we ascended to it have been swept away and forgotten. But in dealing with children we must remember that *processes* are *results* in their effects on the plastic minds. If we lead them to do right by holding out a reward which they are to obtain if they succeed, we have taught them that the tangible possession is the thing to strive for, and the 'being good' or 'doing right' is only the means by which it is attained. Is this not likely to weaken rather than strengthen their moral fiber? When we are no longer at hand with some solid allurement to make virtue profitable, they will be apt to follow their own inclination, regardless of where it leads, if by so doing they can grasp a pleasure."

Parents sometimes endeavor to cure recognized faults by bribing the child to overcome them. He is rewarded for his

generosity or his courteous behavior. Though there may be in this way the outward semblance of reform, the selfishness is only turned in another direction, and not in the least eradicated. The happiness following the child's own inward consciousness of having done right is a natural reward. In this consciousness, the child should early learn to find his satisfaction. Froebel says: "How we degrade and lower human nature, which we should raise, how we weaken those whom we should strengthen, when we hold up to them an inducement to act virtuously." Illustrative of this point is an incident related by a lady of an occurrence in her own childhood: —

"When I was a little girl," she said, "our parents had on a certain occasion left my younger sister and myself alone for the evening. Getting sleepy, we went into our mother's bedroom, and climbing upon the bed, drew a shawl over us preparatory to a nap before their return. In a little while my sister complained of feeling cold. With the loving impulse of a generous child, I gave her my part of the shawl. With a real pleasure I spread it over her, and we were soon asleep. Upon the return of our parents, the question was asked why my sister had all the covering, while I had none. Innocently enough, explanation was made in the words, 'She was colder than I, so I gave her my part.' 'You dear, blessed, unselfish little thing,' exclaimed my father, 'here 's ten cents to pay you for your unselfishness.' A few evenings after, our parents were again invited out, and again we children were left alone. I began at once planning a scheme to coax my sister to go into our mother's bedroom for a nap, in order that I might repeat the deed by which I had earned ten cents. I succeeded, although this time it was by some coaxing that I got her to accept the extra portion of the covering. For nearly an hour I lay awake waiting for the return of my father, in order that I might gain financial profit by my conduct. Thus easily and quickly the sweet, generous, unselfish impulse of a childish heart was changed by the mere thought of material gain, into sordid, selfish, and deceptive conduct."

We strengthen the child's moral character when we teach him to depend upon the happiness engendered by right-doing as a sufficient reward for his good conduct. There are many natural rewards which follow upon right-doing; that is, such as appear the natural sequence of the child's deeds, which may be safely allowed. For example, the child who does his work promptly and well, gains time for recreation; the child who treats with kindness his pet kitten or dog gains their fidelity and affection. The child who bears himself kindly toward his associates, gains their good-will and esteem; the boy or girl who studies faithfully is rewarded by the pleasure felt in the acquisition of new knowledge.

There is one powerful incentive to right-doing closely allied to these natural rewards, which may be safely offered to cheer the child in his life's contest. This is a hearty word of appreciation, a loving approval freely bestowed by parents upon a child when he is justly deserving. The love of approbation is a strong element in human nature. Even we children of older growth are by no means indifferent to a word of appreciation, and listen with eagerness for the longed-for "well done." A look of love, an expression of satisfaction, amply repays us for the most wearisome task. May it not be that we often wrong the child by withholding the word of loving appreciation of his honest efforts? If everything he does be taken as a matter of course, his best efforts calling forth no approval, he will soon become discouraged, and cease trying to

do well. But while we should not be too chary of our appreciation and praise, we must use even these judiciously. Too much praise becomes flattery, and engenders vanity. Too frequent praise may serve to make the child either feel that he has already attained to that place where he is much superior to his fellow beings, or to make him satisfied with his present achievements, thus preventing further efforts.

It should be the parent's purpose to establish in the child those principles and motives which will enlist his will on the side of right-doing from the first, teaching him deliberately to choose to do his duty because he knows it is his duty. The system of marks and prizes as frequently employed in the schoolroom, almost invariably breeds serious results. Says a writer in the *Ladies' Home Journal* regarding the employment of prizes in school: —

"It is supposed that with this incentive, children work harder to acquire knowledge, and make greater progress than they would without it. They are not offered for the benefit of one or two, but as a stimulus to the whole school. Usually very early in the race it is seen that a few of the quicker pupils are far in advance of their competitors, and the contest is practically between those alone. The rank and file feel that they have no chance of winning, and so settle down contentedly to their own slow pace, as unaffected by the prizes as if they had been swept out of existence. Those in front strain every nerve to gain possession of the much-desired trophy. They study with feverish eagerness, not for the love of knowledge, nor the wish to possess it, but that they may distance their companions in the struggle. Only one can succeed, and more often than not, this one gains the first place by some fortunate accident. The second may tread close on his heels, and in reality be as deserving of reward as he who gets it. This gives rise to jealousies and heart-burnings, accusations in the mind of the child if not elsewhere, of unfairness if he is defeated, creating an atmosphere most unfavorable to real advancement. If study is made so attractive to children that they will learn from the desire of knowing, they will need no other incentive than to be allowed to pursue it. It is no generous rivalry that is fostered by offering prizes to children either at school or in the home. Let us depend upon awakening their ambition by other and purer means."

Closely connected with the method of seeking to secure goodness by the bestowal of rewards, is the plan pursued by many parents of paying their children for helping about the housework, — of giving them so much each day for bringing in wood or washing dishes. The purpose in so doing is undoubtedly to foster the child's desire to earn money, a laudable purpose in itself; but does the end justify the means? Ought not every person, child or adult, to feel that the work to be done for the family comfort is simply a privilege he has because of his membership in that family, and that what he does is just as much for his own benefit as it is for any other member of the family? To pay the child for his share of the family cares estranges him from the true family life.

We frequently hear of grown-up sons and daughters avariciously striving to get possession of their parents' estate or money, even at the expense, it may be, of the loss of a home to the aged father and mother. Is it not more than probable that the greed for gain which has evidently swallowed up all filial love originated when the parent proposed to pay them a stipulated sum for performing which ought to have been done willingly and gladly?

It is well to give the children a weekly or monthly allowance with which they are to provide themselves with certain necessary articles, as pencils, pins, needles, thread, or the lesser articles of their wardrobe, and allow them to have for their own all the money they can save from this allowance by taking care of what they purchase or already possess. Most children will find ways by which they can save a good deal when thus required to provide for themselves. This plan teaches the children the value of money as well as the importance of economy, and costs the parent but little if any more than to do the purchasing for the children. They will realize that it is to their advantage to pick up and save the pins and buttons they find upon the floor, that they may not need to spend their money to buy these articles ; they will be apt to be more careful to mend their gloves when the first stitch breaks, that they may not be so soon obliged to replace them.

It is indeed desirable that children should have opportunities to earn money for themselves, but there are few parents who could not arrange to allow them a certain portion of their time to earn something by doing work unconnected with the necessary labor of the household ; for example, little girls who can mend or darn nicely can generally find ample opportunity to secure such work for remuneration outside the home circle. The raising of flowers, vegetables, chickens, the baking of homemade bread, etc., to sell, are other ways by which children can earn for themselves, under the mother's supervision. Give them opportunities to do for themselves, but expect them to do for the home that which is required without anticipating other reward than that of approval and love.

ASKING CHILDREN TO DO TOO MUCH.

At first thought, it seems quite superfluous to advise mothers not to exact more of their children than they do of themselves. I suppose there is scarcely a mother who would not indignantly deny that she stood in need of such an admonition. It would, however, be easy to convince most of them that their neighbors did.

For example, take the common expectation that an obliging baby will be ready to kiss any person, however unattractive or strange, who presents a request for that form of recognition. Would the mother of the baby be herself ready to enter into such an intimate exchange of civilities with such a wide range of persons? From the nurse and her friends to the father and his business acquaintance who has come up to dinner, the baby, or the little maiden of three or four, is expected to greet them all with willing fervor. Childhood is notoriously hospitable and warm-hearted, and it is only once in a long while that the little ones rebel, but the infrequency of the offense only makes more certain the rebuke.

I am thoroughly convinced that if the number of times a wholesome, sweet baby in a fairly good-sized family is coaxed for kisses were counted for a single day, and the mother of that child should ask herself in all earnestness how she would like to give as many kisses to as many people, she would come to the conclusion that she is, in this particular at least, exacting of her child what she would not exact of herself.

Then, again, is there a single adult so practical in self-control that he can stand serving a half-dozen masters? We have it from the best authority that no man

can serve two masters, but every baby is expected to serve at least a master and two or three mistresses. . . . The needful amount of readiness to oblige and willingness to listen to advice can be gained by teaching the child from the beginning to serve that one Master whose commands underlie all righteous human demands.

And as for curiosity. If half the adult population could restrain themselves from an undue interest in other person's affairs as we expect children to do, the newspapers, for one thing, would be transformed. What man or woman is there so preoccupied with noble thought, and so righteous inwardly, as not to wonder what took place at a family conclave from which he was conspicuously excluded? Yet children are expected to be perfectly meek and acquiescent when they are sent out of the room while the elders talk over some important family matter.

And finally, patience and self-control. If grownups could themselves be as patient under the infliction of various discomforts in which they "can't see any reason" as they expect their children to be when they explain to them that they must submit now, but that they can't see the reason until they are older, the churches would be fuller, and the belief in a personal providence would not be so universally exchanged for a belief in a blind, unknowing, and uncaring law.

If fathers and mothers themselves exercised the self-control and patience which they preach to their children, the world would soon be a very different place. The virtues which men and women preach are many; those which they practise, few. And it remains true that the virtues which are practised find imitators; those which are merely preached do not. Therefore it would save many a nerve-cell, now wantonly destroyed in futile remonstrance and in devising ingenious systems of torture for the young, if parents would make it a rule not to ask of their children more than they ask of themselves. In the first place, they will not get what they ask beyond this line, anyway; and in the second place, if they would put their energies on making themselves fit examples for the children, they might succeed.— *Marion Foster Washburne.*

THE PUREST JOY.

If I can live
To make some pale face brighter, and to give
A second luster to some tear-dimmed eye,
Or e'en impart
One throb of comfort to an aching heart,
Or cheer some way-worn soul in passing by—

If I can lend
A strong hand to the fallen, or defend
The right against a single envious stain,
My life, though bare,
Perhaps, of much that seemeth dear and fair
To us of earth, will not have been in vain.

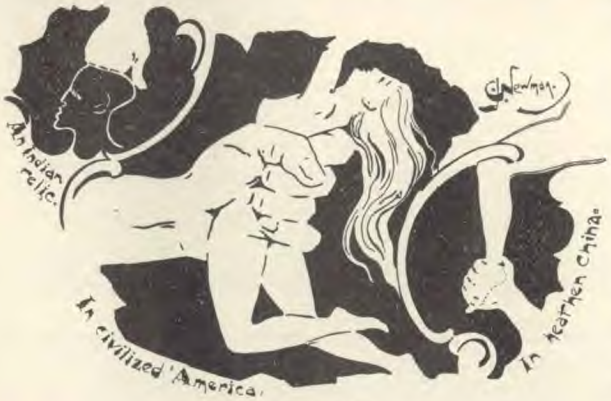
The purest joy,
Most near to heaven, far from earth's alloy,
Is bidding cloud give way to sun and shine;
And 't will be well,
If, in that day of days, the angels tell
Of me, "She did her best for one of thine."

— *Sel.*

WAIST-BINDING IN AMERICA.

BY MELL MINTURN.

In a recent number of Good Health I noticed an article entitled "Foot-Binding in China." That set me to thinking of the customs of our own boasted civilized and Christianized America. Are there not mothers in our beloved land as cruel as those in China? And they can no longer plead ignorance as an excuse, when they have so many advantages for gaining knowledge. Yet those calling themselves Christians, and giving of their



The Cruel Hand.

means to send missionaries to heathen China, continue to encase the waists of their daughters in bandages stiffened with steels and bone, drawing them so tight that the great life-giving element, air, is almost excluded from the lungs, and the poor cramped bodies can scarcely bend. The flushed face, short breath, aching back and head, disordered digestion, red hands, and a host of other ills, not to mention the untimely deaths, bear testimony against the fearful custom. Notice, too, that the part of the body around which the bands are drawn most tightly has no natural bony structure to protect it. Its pliability thus makes deformity more sure and speedy.

Yet American mothers think their daughters not properly clothed without the corset. I have often thought of how much misery a shelfful of corsets is capable of producing. If those who wear them were the only ones to suffer, it would not be so bad; but posterity must pay the penalty, even to the third and fourth generations. Any mother would feel very sad if her child's arm or hand did not grow as fast as the rest of its body, yet there are grown daughters whose waists are not as large as they were at ten or twelve years of age.

Mothers who are brave enough to assert their independence, and say, "I will have my daughters grow to womanhood with a natural, graceful form," are frequently called "cranks." So, too often, the better judgment is crushed, and the conscience hushed, that the daughters may be in the fashion. A noted lady physician has said, "If women only had common sense instead of fashion sense, the corset would not exist."

Further, if what affects the physical affects the spiritual and mental, what an awful reckoning there will be for those that deliberately dwarf any part of the body. Surely we are in greater distress than benighted China; for how can our hope be in the gospel of Christ when those who have had it still sit in darkness?

What is being done to help this great evil? What can be done? The warnings of physicians seem to be in vain, and the tyrant, custom, rules. Its origin, like that of foot-binding, must be lost in

antiquity. Unlike the Chinese in that respect, few of our men sanction this custom, so that the responsibility would seem to rest almost entirely upon the women.

O that mothers' eyes might be opened to see the extent of the evil which they are thus doing their daughters. Let us who have received the light do all in our power to give it to others!

THE INFLUENCE OF DRESS ON THE MIND.

"WHEREWITHAL shall we be clothed?" This text has been written in letters of fire since the days of earliest civilization; and, although it has undergone metamorphoses to suit every tongue, climate, age, and condition, it still holds its own as foremost among women's topics, and is also far from being out-dated with the sterner sex.

Time was when the individual was considered as tri existent, viz., physical, mental, and moral; now, we must add another factor,—financial; and as consisting of these four constituents, I will treat the subject in question. All arguments, however, must lead directly to the mental, as the mind is the individual, and according to its dictates, its training, its requirements, will the body be clothed.

I shall make no reference to the luxuriously rich nor the wretchedly poor, but argue entirely in the interest of the mass that constitutes the mental force of our country, and shall refer largely to the dress of women and children. I place the physical first, as it is the base of all other powers, the bank from which Ego draws his resources. Mental will follow as the blossom crowning the column; moral, as its halo or aroma; and financial, which was formerly but an accessory, as the apparently essential eye-mark.

1. *The Physical.*—We must aim at creature comfort, and respect individual conditions. The thin-skinned, thin-blooded individual will require much warmer material than does the one more carefully provided for by nature. Clothing worn next the skin should be adapted to facilitate its functions. It should be of Jersey weave, and of porous material, so that the impurities that are being continually exuded from the sweat-glands through the pores can pass off and not be retained in the fabric, as is the case with closely woven material. Neither stiff nor tight clothing should be worn. Air needs to reach the skin, and the blood needs to circulate freely through all of the tissues. The union suit, in place of the two garments of former wear, is a valuable innovation in woman's wardrobe, and each year's manufacture takes us nearer the perfect garment. It spares much inconvenience of bulk around waist and hips, and if perfectly laundered, shrinkage need not result, providing, of course, that good material is purchased. The woven suit should extend from neck to ankle. Much neuralgia and rheumatism, as well as organic suffering, would be spared, were this to become an established custom. Stockings are adjusted outside the union suit, and no other hose support is necessary. Equestrian tights, except during hot weather, should also be worn; these may be either knee or ankle length. A petticoat may be worn, but let me beg that it match in color the dress skirt, that no display be made of white material under a dark dress. A corset waist may be necessary; it of course is in case corsets have been worn, and a substitute is needed for warmth. Some also consider the union suit a trifle severe, and prefer wearing the chemisette outside it

for artistic effect. Boots should have a firm but flexible sole.

Dress skirts should be of light material, and so adjusted at the waist that the weight comes from the shoulders ; and for street wear should be at least three inches from the ground, both for cleanliness and comfort.

Were I to enter at all into detail of influence of dress on health, I should necessarily cover folios. The foregoing contains merely a few suggestions.

2. *The Mental.* — This will cover largely the artistic. The pity is that so little of art in nature is really taught the youth of America. During the growing period this very important study is, with rare exceptions, entirely neglected. Teach children beauty and symmetry of form. Teach them neither to ignore nor to adopt present custom, but merely to adapt it to suit nature's design. Teach girls that the corset interrupts a symmetrical plan, and suggests to the cultured mind amalgamation of several figures with no harmony of contour, like a badly arranged house, part Gothic, part Doric, part American. Education of mind alone can lead to such a conception of art and harmony, and in this let us not cite exceptional cases, nor call to mind grotesque figures, but consider the ultimate figure of the growing girl and the grace and beauty of the adult woman.

Art suffers no greater outrage in dress than through the practise of compressing the waist of the overstout girl or woman, thereby saddling her with ponderous hips and abdomen, which are indeed a mental burden. Exceptions are rare when the mother realizes this early enough to instruct her daughter before the harmful experiment is tried.

With all, dress is the exponent of character, a photograph of one's real self. In some cases we read in carelessness and indifference of attire, the mind of a world-weary nature. A lack of pride is evident also in the fruit of her labors, whether she leads in the home, the school, or in society. Absolute untidiness marks the character of others. Let the literary aspirant who claims this as the highway to success, remember that genius is born, not made ; and if it has been nurtured in unclean surroundings, that such influence neither creates nor encourages talent. Loose buttons and ragged edges cry out in sentences and paragraphs, or are offshoots from the brush, as the case may be. A really finished piece must be the fruit of a well-appointed individual.

Dress is not only an exponent of character, but it is also a powerful environment of Ego. He is at his best when dressed his best. The well-dressed child has a higher respect for himself than when clothed in unclean, ill-fitting garments.

The store girl serves us better when neatly and becomingly dressed ; the teacher is stronger in her work when conscious of looking her best. A loose button or trodden-down heel is noticeable in either, through her lack of confidence. The world detects lack of self-respect much more quickly than the possessor fancies.

Both priest and actor depend on the influence of dress ; and who shall say that the modest Quaker would not lose in her characteristics, were she to adopt showy apparel ?

Dress is an environment, not alone to the wearer, but to all whom she influences, particularly to receptive children. We can recall our early instructors by the photograph, either pleasing or otherwise, made on the memory ; and who can ever forget the breakfast-table picture of a woman in curl papers ?

Gaudiness of dress encourages frivolity. This quality, of course, existed in the mind, else such dress would not have been preferred ; but were the taste directed to softer, more harmonious ar-

rangement of color, it would respond to the influence.

3. *The Moral.*— Is not this covered by the foregoing argument on cleanliness, gaudiness, etc. ? Therefore there seems little left to say, without repetition.

4. *The Financial.*— Let me suggest that the word "economy" be defined in regard to physical as well as financial outlay. The woman whose powers are overtaxed, whatever may be the cause, should aim to reduce her wardrobe to the fewest possible pieces, not alone for economy in finance, but for physical labor involved in replenishing and repairing. Think of the old-time laundry, and of the needless outlay of time and energy involved in caring for the multiplicity of dainty underwear.

For outer dress, the question comes with additional emphasis. What shall we wear? A few concluding suggestions only are necessary to enable the thoughtful mind to deduce her own conclusions for the answer.

For tints, choose those that respond to nature's suggestion in hair and eyes. Contrasting colors are necessary, but need not be antagonistic. A color theme should always form the basis of apparel. If variety of attire is impractical, choose inconspicuous colors. A woman should be identified by her characteristics, her elegance of carriage, her harmony of dress, instead of by her striking apparel. As to material, consult the pocketbook and the customs of the age. Light-weight material should always be chosen.

Be consistent in expenditure. Don't spend fifteen dollars for a hat if your husband's income is but three thousand a year, and then criticize the millionaire's wife for spending seventy-five dollars on her hat.

Fit clothing to the body, and do not distort the body to suit a meaningless fashion. Wear no ligature at waist or knee, and no lace veil to distort the vision and weary the nervous system. Free yourself from the bondage of custom, but always dress becomingly and as nicely as your circumstances will permit, never, however, straining at rivalry.— *E. Marguerite Lindley.*

Comfortable Shoes.— People who are troubled with cold feet may take heart. In Germany there has been patented a contrivance described as a "heatable shoe."

The heel is hollowed out, and in this hollow is a receptacle for a glowing substance similar to that used in Japanese hand-warmers. Between the soles, imbedded in asbestos covers, is a rubber bag which is filled with water.

The heating substance in the heel keeps the water warm, and it circulates while the wearer is walking, thus imparting a pleasant warmth to the foot. A small safety-valve is provided, so that the bag cannot burst.

The warmth given by the sole never rises above seventy degrees Fahrenheit, and will last about eight hours. The *Popular Science News* says that the sole is not unreasonably thick, being only slightly thicker than that of a wet-weather shoe.

To breathe or not to breathe, that 's the question,
Whether it is nobler for our sex to suffer
The pain and torture of a steel girt corset,
Or to take up arms against Dame Fashion's tyrannies,
And by opposing end them
To unlace, to breathe once more,
And with full breath to say we end the sideache and the thousand unnatural ills
We make flesh heir to,—
'Tis a consummation devoutly to be wished.

—*Sel*

Put Brains into Your Work. — "How do I know a good saleswoman?" said the owner of a large toy-shop in New York. "Do you see that little girl? I took her on as an 'extra' two months ago! She was hopelessly diffident and clumsy, so I set her to arranging a shelf of dolls which had always hitherto stood in unmeaning, straight rows. When I came back, I found each doll in a characteristic attitude. One was at a mirror, another was rocking the cradle; some of them were dancing a quadrille, others at the wash-tub and cooking-stove. A crowd surrounded them. They sold rapidly. I saw that I had secured a valuable assistant. She put her brains into her work."

Richardson, it is said, was once asked by a publisher to furnish a series of letters which might serve as models of the epistolary art, and teach English working men and women how to begin and end a letter properly. After a few days Richardson brought the first pages, saying that he had woven a story into the letter, in order to teach his readers to be virtuous as well as grammatical. The result was the story of "Bamela," which was welcomed with delight throughout Europe, and has become an English classic. He had put brains into his drudgery.

"Do not be miserly of yourself," says an old German writer. Put your best thought and best feeling into all your work, however small or trifling. How can you know whether this seed or that which you plant will grow and bear fruit for all time? — *Youth's Companion.*

CHARACTER GROWTH.

UNDER certain conditions a seed will germinate, grow, and become a tree. We have observed what these conditions are, and we follow them. We plant a seed, and feel certain that a tree will in time be found growing in that spot.

Character is the result of conditions; it is not something one can force in on the person. It may be defined as a settled purpose to do the fitting act — fitting being used in a large sense. There are several conditions; one of them is the showing of the philosophy of life. To do the fitting thing is the act of a philosopher.

The schoolroom is the place where there is a jostling of human beings, a tendency to friction, and hence a need to know philosophy, or principles. The best way to teach ethics is by calling attention to the incidents that come up daily in the schoolroom. Bear in mind that there is an ethical principle or element that will grow if the opportunity is given, if the conditions are favorable. Just as there is a life principle in the grain of wheat that will separate if heat and moisture are applied rightly, so there is an ethical principle waiting to grow in the human being.

Turn to the method of Jesus. The question was asked, Who is my neighbor? An incident was related, probably one that had lately happened and was known to all. "A man went up from Jerusalem to Jericho," etc. The question had the philosophy of kindness unfolded in this incident. The condition which Jesus supplied was to cause the questioner's intellect to decide on the fitting act in this case.

In like manner the teacher will take note of any fitting incident that may occur, and employ it to develop a principle. To manage such an incident so that it ensures ethical growth is a greater and a nobler task than to hear a recitation in the division of fractions or in the spelling of words of different formation. — *School Journal.*

Beauty.— Every girl is recommended to make a study of beauty; but beauty of the real kind, not the fictitious type with cramped figure, gaudy apparel, and liberal use of paints, dyes, and washes. True beauty rests on plain living and high thinking, on blood, bearing, and brains. It is in one sense a relative thing.

Hume says: "There is nothing in itself beautiful or deformed, desirable or hateful; but these attributes arise from the peculiar construction and fabric of human sentiment and affection." To dip far into philosophy on the subject, however, is not necessary. The difference between genuine and meretricious beauty is well understood by our race according to its own standards. The fact is well recognized that temperance, purity, and exercise create an external beauty indicating interior excellence.

THE VISITOR.

WITHOUT my door at morning-tide
  There rang a summons hail and fair;
I roused and drew the portal wide,
  And lo! young April there.

I saw the sunlight in her eyes,
  And her anemone lips aglow;
She beckoned in beguiling wise;
  I could not choose but go.

The grass beneath her quickening feet
  Rippled with silvery green once more,
And many a rill rang singing sweet
  By many a leaning shore.

She led me high among the hills
  By paths that wilding wanderers use,
Where the magician Morn distils
  The honey of his dews.

Bloom-secrecies she showed to me,
  The coils through which all being stirs,
Till, spelled by her soft witchery,
  My heart was wholly hers.

So now when up the year's bright slope
  A call comes ringing o'er and o'er,
I fling the portal wide, in hope
  'T is April at the door.

— *Clinton Scollard, in Scribner's.*

Silent Influences.— In nature we generally find that the silent forces are the most powerful ones, and this is true also of moral and spiritual life. The dew of the night-time is said to be of greater worth to the dry and parched land than the rushing tempest that sweeps over it. The murmuring rill gives its clear water as freely to the vegetation upon its banks as does the great restless river sweeping in its majestic pride to the ocean. There is no element in nature so needful to the world as the sunlight, and yet its golden wealth falls as silently upon the earth as do the shadows.

When springtime comes, with all its transforming power, we never hear the sound of its footfall; and when summer and autumn leave their tints of gold upon the ripening grain, we catch no sound of the hand that does the work. No ear is so quick as to hear the sound of the growing oak. There is no stir among its creeping roots, or beating of its woody heart. But it grows on in eternal silence, and becomes so strong that the tempests of a century cannot uproot it. Is there anything stronger than the mountains? Yet they are forever silent, and smile on the same, through all the changing seasons. There is a power in the gleaming lightning, yet it makes no sound in its fiery descent. The loud thunder is the harmless element. — *Sel.*

EDITORIAL.

FALSE TEACHINGS IN HYGIENE.

It is not a matter of surprise that so many people in our day should be found announcing themselves as skeptical in regard to the so-called principles of hygiene relating to diet, dress, etc. Perhaps one of the principal causes of this skepticism is the fact that the country is filled with irresponsible, self-constituted teachers of hygiene, who write articles on these subjects as the most convenient or available method of making a living. These penny-a-liners do not hesitate to lay down rules in the most arbitrary manner without the slightest preparation by training in physiological or sanitary science.

In a recent article by one of these upstart teachers, who undertakes, in a kindergarten journal, to tell how to feed children, the first recommendation is that the child should have breakfast as soon as he gets up in the morning, and another meal a couple of hours later, the first meal to consist of bread and milk, the second, of fish or cold meat, porridge, with cream and abundance of sugar, jam, or marmalade, etc.; while two or three hours later the child should have another meal consisting of meat, potatoes, grains, and vegetables, and some kind of sweet pudding. Lunch, consisting of bread and butter and tea or coffee, is recommended for half-past five or six o'clock, and an hour or two later a supper of preserves, cake, etc., making five meals per diem, and not one of them composed of the right sort of material for making good bones, brains, muscles, nerves, and blood.

Such unhygienic rubbish ought to be suppressed; but this is a free country, and free speech is one of the most jealously guarded rights of the people. Thus there is no way in which the real rights of the people can be protected except by the promulgation of the true principles of health reform, which were never more needed than at the present time.

The stamina of the race is rapidly declining. The men and women of the present generation are far behind their grandparents — and even their fathers and mothers in most instances — in stamina and endurance; and unless the degenerating tendency is checked by a thorough enforcement of health principles in the correction of evil habits of diet, dress, and other matters of vital importance, the deterioration will be still more marked in the next generation.

VEGETARIANISM NOT AT FAULT.

The recent death of Mr. Charles Sorley, former president of the Chicago Vegetarian Society, from cancer of the liver and stomach, has been made the occasion of some absurd newspaper comments, and used as an argument against abstinence from flesh foods.

The following statement has been published as being made by Mr. Sorley's son to a reporter: —

"My father was not opposed to others' eating meat, if they chose, but his character was of such a gentle and humane kind he could not bear the thought that animals should be put to torture and death to supply him with food. Ten years ago he became a vegetarian, and since has abstained rigidly from all animal diet, with the exception of milk and eggs.

"At the beginning of his illness, six months ago, I became convinced that his health was failing because of his adherence to a meager diet; but not until a week ago could he be induced to eat meat to help regain his strength.

"On changing his diet, he rallied for a few days, but his condition was already hopeless.

"It is the opinion of all who have studied his case that his fatal illness was due to vegetarianism. Members of the Vegetarian Society, of which he was president, visited him continually during his illness, until I had it stopped, as I had no confidence in the vegetable drugs which they insisted on his taking."

The erroneous character of the above conclusion will be readily seen by the consideration of a few well-known facts. Cancer of the stomach is a germ disease; its development is due to the fact that cancerous parasites obtain a foothold in the stomach, and developing there, cause death by ulceration, or, as reported in the case of Mr. Sorley, by destruction through the development of a cancerous growth. Cancer germs can obtain no foothold in a healthy stomach, since they are readily destroyed by the gastric juice when it is present in proper quantity and quality.

The gastric juice is a natural disinfectant. Anything which lessens the antiseptic or disinfecting power of the stomach must tend to the development of cancer. The use of meat is particularly active in this direction, since flesh foods neutralize the acidity and disinfectant power of the gastric juice, thus opening the door to cancerous disease and other parasitic maladies.

That this argument does not rest upon theoretical grounds alone is shown by several indisputable facts which are recognized by all classes of physicians, and which may be stated as follows: —

1. Cancerous disease rarely occurs — almost never in fact — among persons who have been lifelong vegetarians. Cancer of the stomach is almost unknown among the vegetarian Hindus of India, while it occurs more frequently among beef-eating Englishmen than any other class of people in the world.

2. No intelligent physician ever prescribes a meat diet for patients suffering from cancerous disease of the stomach. On the contrary, the practise of all scientific physicians has been, for many years, to insist upon total abstinence from flesh foods in cases of cancer. This fact can be very readily verified by any one who will take the trouble to consult any standard text-book of medical practise.

No further argument need be offered, since it is apparent that if cancerous disease is most frequent among those who eat meat, and is aggravated by the use of meat, it is not possible that it could be caused by abstinence from meat. The fact is, that the non-use of flesh foods is one of the most effective means of preventing all forms of infectious disease by preserving intact the defensive powers of the body through purity of the blood and secretions.

THE DEADLY PORK.

THE Mosaic law forbade the use of pork, because the hog is by nature a scavenger, the consumer of offal, dead and decaying animals, and filth of various descriptions; and it ought not to require an argument to convince any intelligent person that an animal whom the ancients named "*sus scrofa*" is unfit to be consumed as food by human beings. A hog will eat a dead hog as readily as he will eat corn or clover, and they have been known to kill children and eat them, like a wolf or a hyena. And yet this disgusting creature is daily served upon the tables of civilized Americans as a delicacy and a tidbit.

There are plenty of half-civilized people who would die before they would eat pork; and such is the antipathy of two hundred millions of Hindus against the scavenger beast that they would endure the pangs of hunger to the very point of starvation before even considering the propriety of slaying and eating a pig. There are millions of savages in Africa whose hereditary prejudices lead them scrupulously to abstain from the use of pork, though it is eaten in quantities by the Europeans who have settled among them.

"Whatsoever a man soweth, that shall he also reap; for he that soweth to his flesh shall of the flesh reap corruption." The

profound wisdom and unvarying truth of the principle propounded in these words of Holy Writ find nowhere a more accurate verification than in our dietetic habits.

The following clippings from the news columns of recent papers afford forcible illustrations of the danger of the use of pork, and of nature's method of dealing with those who transgress her laws : —

"*Ann Arbor, Mich., March 16.*— Within the last few days four members of one family have died of the same disease. Louis Vogel died on Sunday, Mrs. Gottlieb Schwartz and her daughter a few days before, and to-day Lyda Vogel died. It is believed that the cause of all the deaths is eating diseased pork."

"*Elsberry, Mo., March 22.*— The family of William Humphreys, near Old Alexandria, this county, was poisoned yesterday from eating pork supposed to be infected with hog cholera. Mrs. Humphreys is dead, and her husband and two children are at the point of death."

THE FIRST WATER-CURE.

PRIESSNITZ, the well-known cold-water doctor of Graefenberg, in Austrian Silesia, in the year 1820 created a world-wide reputation in the cure of chronic maladies by the use of water. People from all over the world went to Graefenberg, at great expense and trouble, for the purpose of visiting this water-cure doctor. His principal remedies were the wet-sheet pack, the sitz bath, the cold pour, and the wet girdle. His regular daily treatment was about as follows : —

First in the morning came a wet-sheet pack. The sheet was wrung out of cold water, the patient packed in it, and then permitted to sleep. In about an hour he was awakened, the blankets were opened, and loosened so that he could walk. He was then led down into the basement, where was a large vat filled with cold water; the bath was so cold that icicles formed on the edge of the vat. The temperature of the water was from 38° to 40° F.

After coming out of the water, a coarse towel about thirty-six inches long was wrung out of cold water, and wound around the body of the patient, and he was directed to walk up the hillsides for two hours, until he was warmed, and then come back to breakfast, for which, by that time, he had a good appetite.

The breakfast consisted of *schwartzbrod* (black bread) and sour milk,— a very common diet in that country. This plain breakfast was certainly useful in curing a great many chronic dyspeptics.

Toward evening, or along in the afternoon, the patient was given another cold pour. The pours were taken in the douche-house, about half a mile from the "cure" proper. The house was so constructed that the wind whistled through it, while the stream that came from the open trough which brought the water from the mountain fell about fifteen feet. The patient took this douche first upon one hand and arm, and then upon the other; then upon one shoulder, then upon the other; and then, in the same manner, upon his limbs and feet. After the douche, the patient was rubbed warm and dry, and permitted to go home to supper.

This vigorous treatment was effective,— it either cured or killed; if the patient survived it, he got well — and he got thoroughly well.

The Wet Girdle.— One of the most important remedies used by Priessnitz, the father of water treatment, was the moist girdle, or *umschlag*, or Neptune's girdle,— all different names for the same thing. The moist girdle is one of the most valuable remedies known. It is an old-fashioned remedy, being used by the ancient Romans

who called it the *epithegm*. It was sometimes used with pure water, and sometimes with decoctions.

This girdle was reapplied every morning and night, being worn day and night, until the skin became raw; and when sores broke out, the patient was pleased, for he felt sure that the crisis had come, and that he was going to get well. It was an idea among old doctors that such an effect was the disease coming out upon the surface, and that the principal difficulty was thus relieved. The *umschlag* is not now used for the purpose of producing sores, as it was in the times of Priessnitz, but for the purpose of relieving inflammation and congestion of the internal organs, and bringing about normal vital activity, for which water seems to be the most natural of remedies. It is not a tonic, but a sedative. By this means the blood is drawn to the surface, and the internal irritation quieted. This is one of the best means of bringing about a change for the better in the condition of a patient requiring this cure.

A SERMON AGAINST CIGARETTE-SMOKING.

No better comment on the terrible evils of tobacco-using, and no more graphic presentation of the awful effects of nicotine-poisoning could be offered than the following clipping from a recent issue of the New York *Telegram*: —

"'Give me a cigarette!' gasped George Merkt with his last breath, as he died Sunday, a raving maniac in the insane pavilion of Bellevue Hospital. All day long doctors and attendants had struggled with the emaciated young man, who had suddenly gained the strength of a hundred giants. He had raved and fought until finally he was completely exhausted, and had sunk to his cot so weak as scarcely to be able to articulate.

"Young Merkt was a cigarette fiend, and his death was the result of nicotine-poisoning. About six months ago he began to act strangely. Though a strong man, he became extremely nervous; and unless he had a cigarette in his mouth all the time, he was apt to lose his temper and abuse his father and his wife. He finally reached a stage where sixteen packages a day was considered an ordinary allowance.

"When his condition grew steadily worse, his father consulted a physician, who advised that he be placed in a private ward in Bellevue. He was taken to that institution, and was under treatment for about two weeks. When he returned home, his friends said that he had at last been broken of the habit. Strange to say, up to this time his vicious excesses had not greatly changed his physical appearance.

"He abstained from smoking for two days after he returned to work. Then he was unable to control the old appetite, which seemed to have returned to him with redoubled vigor. He was again soon smoking sixteen packages a day, and is said to have kept up that average until he was taken to Bellevue Hospital in a state resembling delirium tremens.

"By this time the poison had begun to make itself manifest in the young man's physical appearance; his cheeks had fallen in, his complexion was sallow, his formerly powerful shoulders were bent, his eyes seemed to be starting from their sockets, his tongue grew the color of chalk, and the skin, too, began to peel off of it.

"The metamorphosis in his mental condition was fully as marked. From a sensible young man he was changed by turns into a snickering, smirking idiot, or into a raving demon that the combined strength of four ordinary men could not handle. This continued until death cut short his sufferings."

Free Public Baths in Chicago.—Chicago has now three public baths which are free to those not able to pay. The first of these was established at Custom House Place by

the Medical Missionary and Benevolent Association, and has been in operation for the last four years. A few months later the Carter Harrison Baths were opened; and through the efforts of the Free Bath and Sanitary League, the Madden Bath has recently been completed and opened.

There ought to be at least a dozen more free bathing-places in Chicago, and it is to be hoped that those who have been chiefly instrumental in establishing the Carter Harrison and Madden baths will continue their efforts until Chicago becomes as famous for its free bathing facilities as it now is for its pork packing, its germs, and its political jobbery.

A Vegetable Substitute for Milk.— Some years ago that eminent physician, the late Sir B. W. Richardson, prophesied that the time would come when milk, as well as all other forms of animal food, would be derived directly from the vegetable kingdom. Many savage tribes obtain supplies of milk from vegetable sources.

The milk of the cocoanut furnishes a satisfactory substitute for cow's milk to the teeming millions of many tropical countries; while the cow-tree of South America provides a vegetable milk so rich in fatty matter that it might be more properly termed vegetable cream.

In endeavoring to meet the dietetic requirements of invalids suffering from digestive disorders constantly under the writer's care during the last twenty years, a most conspicuous lack has been a suitable substitute for milk, which should be free from the various objections existing against its use. Some years ago he began a series of experiments with direct reference to the solution of this problem, and about a year and a half ago succeeded in producing a very palatable substitute for milk, which was termed "Lac Vegetal." By continued experiments this product has been perfected until it can now be offered with confidence as a thoroughly satisfactory substitute for animal milk. Lac vegetal, or nut cream, is made from the choicest nuts, and is thoroughly sterilized. Its composition is such that it constitutes a perfect and symmetrical food.

All nuts contain fats in a state of emulsion, and also a large percentage of proteid matters. By crushing and mixing with water, a solution closely resembling milk may be made from most kinds of nuts. The amount of fat and of proteid substances contained in such a solution does not differ very greatly from the proportions in which they are found in milk. Such a preparation made from almonds contains all the elements of nutrition, and in proportions better adapted to the wants of human beings than does cow's milk. The fat which it contains is present in a state of perfectly natural emulsion. The proteid or albuminoid elements, corresponding to the albumin and casein of milk, are practically identical with the casein of mother's milk, and form in the presence of an acid extremely fine and soft curds, which break up with the greatest readiness. In this respect it is even superior to the natural food of the human infant.

Lac vegetal, when diluted, has precisely the appearance of cow's milk; and if allowed to stand, a cream will rise upon it.

In experiments made with nut milk it has been found to have a delicate, delightful flavor, with a suggestion of its nutty origin, but resembles cow's milk very closely indeed. It agrees with the most delicate stomach, and can be taken with perfect impunity by persons who cannot take cow's milk or cream even in the smallest quantities without suffering more or less severely in consequence. Added to cow's milk in proper proportion, lac vegetal, or nut cream, prevents the formation of hard curds in the stomach, as when the cow's milk is used alone. This renders it an exceedingly valuable food for infants,— vastly superior to any infant's food which has been devised.

ANSWERS TO CORRESPONDENTS.

NERVOUS DYSPEPSIA. — A student in Massachusetts asks for advice in his case, which presents the following symptoms: Indigestion, coated tongue, bloating; mind dull and memory impaired to such an extent as to interfere with study. He would like an outline of treatment.

Ans.— Eat fruit only, for a few days; eat all you want, apples raw and cooked, and stewed fruits of all kinds. Avoid fruits which are over-sweetened; a few nuts may be added. A few days of this regimen will no doubt change the appearance of the tongue, and perhaps clear it entirely; if not, continue the same at intervals for several months. It may be necessary to adopt as a regular habit, an exclusive fruit dietary for one day each week. Discard the use of milk altogether, except in the form of buttermilk or kumyss. Eat dry foods; discard also meats and cheese, pickles, butter, all rich and unwholesome things. Granose, bromose, nuttose, and the various other food products prepared by the Battle Creek Sanitarium Health Food Company are to be recommended. A wet girdle worn at night, followed by a cool sponge bath in the morning, will be found helpful.

DIET — SMOKING FOR DYSPEPSIA. — A correspondent in Iowa ask: "1. Are two meals a day sufficient for a person who works regularly from five o'clock in the morning till seven, eight, or nine in the evening? 2. Is it injurious to eat when one is very tired? 3. Is it healthful to eat apples between meals? 4. What constitutes the best diet for one who is troubled with sour stomach? 5. Is not the practise, sometimes recommended even by doctors, of smoking or chewing tobacco to 'keep the food down,' a harmful one? 6. Is it not very injurious to keep nibbling sweetmeats, nuts, etc., between meals?"

Ans.— 1. Yes; the food should be sufficient and substantial.

2. Yes.

3. No.

4. There are two forms of sour stomach, — one in which the acidity is due to excessive secretion of hydrochloric acid, and in the other to fermentation. When due to the latter cause, a diet consisting largely of granose, zwieback, and other dry foods is to be recommended. Antiseptic charcoal tablets should also be used — two to four after each meal. If due to an excessive secretion of hydrochloric acid, the diet should consist chiefly of granose and other dry foods, nuttose, bromose, and similar nut products.

5. Most certainly.

6. Certainly; such a practise is in the highest degree destructive to good digestion.

LA GRIPPE — HOT BLANKET PACK. — A letter from So. Dakota contains the following questions: "1. A patient who has recently suffered from *la grippe* sweats so profusely as to saturate the bedding. The sweating is accompanied by severe coughing, and expectoration of a thick spittle. The skin is yellow, and the perspiration stains the bedding, though the person does not use tea, coffee, tobacco, or liquor. What treatment would you recommend for this case? 2. How long should a patient be left in a hot blanket pack? 3. How many times a day should a pack be given?"

Ans.— 1. This patient is probably suffering from tubercular disease of the lungs, or consumption. An experienced physician should be called to examine the lungs at once.

2. This depends upon the effect desired. If the pack is given to relieve a cold, it should be continued just long enough to produce profuse perspiration; if for alleviating pains in acute rheumatism, it may be continued several hours.

3. Ordinarily not more than once a day, though in the case of acute rheumatism it may be repeated every two or three hours, or may be continued for twenty-four hours or more.

ABNORMAL SWEATING. — A correspondent residing in Colorado states the case of a child five years old who is afflicted with profuse sweating, especially at night. 1. What can be done for the trouble? 2. Could it be the result of hereditary influences?

Ans.— 1. The child is very likely suffering from rickets. The cause is constitutional weakness or improper diet. A cool bath

should be administered daily, accompanied by a vigorous rubbing, followed by an oil rub. The diet should consist of easily digested food, as granose, bromose, and "liquid food."

2. Possibly.

COTTOLENE — SOAP — MATTRESSES. — A reader asks the following questions: "1. Is the cottolene of the market just what its manufacturers represent it to be? 2. Would you recommend its use for those who eat flesh? 3. Do you recommend mottled Castile soap for cleansing purposes? 4. How is the soap colored? 5. What mattress is the most wholesome? 6. Are pine palmine mattresses good?"

Ans.— 1. We have no means of knowing.

2. No.

3. Yes. Mottled Castile soap is more likely to be genuine than the white, as it is not so easily adulterated.

4. The mottled color is due to the presence of a small quantity of iron.

5. A hair mattress.

6. We have had no experience with mattresses made of the material mentioned, but see no reason for objecting to them.

MILK CURDS — LEMONS — NUTS — STERILIZING BUTTER.— A lady in Idaho writes for answers to the following questions: "1. Do milk curds, or slip, which is made by adding rennet to milk, constitute a healthful food? 2. With what foods do lemons form a proper combination? 3. Are nuts made more digestible by being heated either before or after cracking? 4. What kinds of nuts are most easily digested? 5. How is butter sterilized?"

Ans.— 1. Yes, for persons who can digest milk. Many persons, especially those suffering from indigestion, and nearly all those whose stomachs are dilated, must avoid the use of milk, except in the form of buttermilk or kumyss.

2. Lemons may be used in moderation with any wholesome food by persons who have ordinarily good digestion. In the case of extreme hyperpepsia, they are generally inadmissible.

3. Most nuts, like other foods, are made more digestible by cooking; but if exposed to too high a temperature, the nut fat is decomposed, and becomes indigestible.

4. All the edible nuts are readily digested if properly prepared and thoroughly masticated.

5. By sterilizing the cream.

SANITARIUM HEALTH FOODS.— A student in Iowa asks if a bill of fare can be made up of the Battle Creek Sanitarium Health Foods which will be sufficient to sustain strength of body and mind, without further cooking.

Ans.— Certainly; one could live for an indefinite time on granose, nuts, and apples. A dietary consisting of granose and liquid nut food, bromose, or nuttose, with apples, is a bill of fare fit for a king, and is capable of maintaining a high state of health. Bromose is, in itself, a complete and perfect food, capable of sustaining life for an indefinite length of time. This statement is demonstrated by the fact that the lives of numerous infants have been saved by feeding them exclusively with bromose for several months.

BUTTERMILK — NUT BUTTER. — E. A. B., of Arizona, writes: "1. Is buttermilk healthful? I had supposed that the germs and germ products contained in it would be more harmful than in fresh milk. 2. Can one buy nut butter already made up for table use?"

Ans.— 1. The presence of lactic acid prevents the presence of harmful germs in fresh buttermilk.

2. Yes, the Sanitas Food Company, Battle Creek, Mich., supplies nut butter ready for immediate use.

PARALYSIS FROM DIPHTHERIA.— J. M. L., of Oregon, writes: "About a year ago my little boy, now nearly four years old, had an attack of diphtheria, resulting in partial paralysis of the palate and neck; and since that time his eyes have been crossed."

Ans.— The child may recover in time; if he does not, a good oculist should be consulted, as an operation may be necessary. Every attention should be given to improving the general health. Give a morning bath, followed by an oil rub, every morning. The child should be under the immediate watch-care of a competent physician.

LITERARY NOTICES.

EVANGELIST IRA D. SANKEY, the singer and composer, has written a new sacred song for the April *Ladies' Home Journal*. He has given it the title of "The Beautiful Hills," and considers it superior to his famous "Ninety and Nine." Mr. Sankey wrote it with the especial view of its appropriateness for outdoor choral singing — for camp-meetings and other religious and semi-religious gatherings.

WITH the April issue *Munsey's Magazine* enters upon a new volume, and marks the occasion by a remarkable increase in size, which carries the reading-matter to 160 pages. The size is now the same as the *Harper's* and the *Century*, and it compares favorably with them as to letter-press and illustration. The portraits of President McKinley and his wife are especially fine. The endeavor of the publishers is to bring the literary merit to the same standard of excellence, and yet hold the price at ten cents a copy, or one dollar a year. A series of articles which promises to be of much interest is entitled, "My Favorite Novelist and His Best Book," in which the leading literary men of the day will give their tastes and opinions on this subject. The initial number is by William Dean Howells. Marion Crawford is represented in this issue by the instalment of his "Corleone," and Hall Caine by that of "The Christian." "The New Journalism and the Old," by John M. Holmes, of the Boston *Herald*, furnishes a leading editor's opinions of the value and significance of the so-called "new journalism." Frank A. Munsey, Publisher, 111 Fifth Ave., New York City.

IN the April number of *Current Literature* the editor, under his "Symposium," considers what he calls the "new cry of the people," as to what they shall read in this busy age of multiplied books and magazines, and makes some very good suggestions on the subject. The department of "Current Literary Thought and Opinion" is especially good in this number of the magazine. It presents: "The Typical American Novel" (Harry Thurston Peck); "The Problem of the Novel" (Annie Nathan Meyer); "The Doom of Fiction" (*New York Observer*); "The Future of Newspaper Humor" (Donn Piatt); and "The Hysterical in Literature" (James Buckham). The Current Literature Publishing Co., 55 Liberty St., New York.

OF the general articles in *Demorest's Magazine* for April, the following may be mentioned as of special interest: "Memorials of General Grant;" "Homes in Western Mining Camps;" "The Children of the Five Points Mission;" and "Easter Egg Rolling at the White House." All are profusely illustrated, as are other articles of the issue. The "Mirror of Fashions" gives a review of the spring styles in gowns, millinery, and hair-dressing, with suggestions for adapting them to the individual wearer. The Pattern Orders accompanying this magazine, by which the subscriber may obtain any number of the reliable Demorest patterns for four cents apiece, constitute a valuable feature of the publication. Address Demorest Publishing Company, 110 Fifth Ave., New York.

PUBLISHERS' DEPARTMENT.

THE Battle Creek Sanitarium was never so full of patients at this season of the year as at the present time. Doctors, lawyers, physicians, capitalists, and people of culture and wealth from all parts of the United States are largely represented in its numerous family.

THE lawns of the Battle Creek Sanitarium, which have been green all winter, are taking on a more brilliant coloring under the influence of the warm sunshine and the abundant spring rains. The gardeners are bestirring themselves in making preparations for spring flower-beds, and for the flower-boxes which will by and by line the porches with borders of bloom, constituting a perennial source of pleasure to the guests of both the Sanitarium and the Hospital during the summer months, when a considerable portion of their time is spent on the porches or in the open air.

THE managers of the Battle Creek Sanitarium are arranging to establish a special department for the treatment of disorders of the stomach at the branch institution in Chicago, which will be hereafter devoted to the treatment of that class of troubles. A bacteriological and chemical laboratory has been fitted up in the building now occupied by the American Medical Missionary College, which is located in close proximity to the Sanitarium. An experienced and expert German chemist will be put in charge of this laboratory, and every convenience will be supplied for the most advanced chemical and bacteriological work relating to disorders of digestion.

DR. RILEY reports that the Colorado Sanitarium, located at Boulder, Colo., is well filled with patients, and that the improvement made by those under treatment is something marvelous. A young man suffering from tuberculosis in an early stage of the disease, who was sent to the institution three or four months ago, now weighs forty pounds more than he did upon his arrival, and is as strong and vigorous as he ever was in his life. The Colorado Sanitarium affords a means whereby the lives of a

great majority of the two thousand consumptives who die annually might be saved. At the present time the institution has facilities for the treatment of those only who are able to pay for the services rendered them, although the charges are moderate for persons of limited circumstances. A movement, however, is on foot for the erection of a building in which free treatment may be given to those who are able to pay a moderate price for board, and it is hoped that means may be provided for the endowment of free beds for worthy cases. Until such provision has been made, however, those not able to pay for treatment should not visit the institution, at least not without first writing to the superintendent, W. H. Riley, M. D., Boulder, Colo.

We know of no place in the world where a person suffering from lung trouble can have so good a chance for recovery as at this institution. It should be borne in mind also, that it is well equipped for all lines of sanitarium work. Dr. Riley has been for some years a very successful specialist in disorders of the nervous system, and is well qualified to deal with this large class of disorders as well as with other chronic maladies. Dr. Riley is ably assisted by Dr. Wm. Hubbard, Mrs. Dr. Eva Reed, Dr. G. W. Burleigh, and a most efficient corps of nurses and other assistants. Those who are familiar with the work done at the Battle Creek Sanitarium may visit the Colorado institution with full confidence that they will be equally well cared for and treated, and that they will find the same homelike spirit which prevails in the institution at Battle Creek.

Note the unprecedented offers in our Premium List.

DR. OTTOSEN, of Copenhagen, Denmark, who has recently visited the Battle Creek Sanitarium, is about to establish, under the auspices of the Medical Missionary and Benevolent Association, a special sanitarium for the treatment of disorders of the stomach in his home city. This institution will be supplied with an admirable equipment and excellent facilities for this work, — laboratories, mechanical exercise, apparatus, etc. It will be the first institution of the kind in Northern Europe.

DR. O. G. PLACE, who with his party left a few months ago for Calcutta, India, for the purpose of organizing medical missionary work in that city and establishing a sanitarium in the foot-hills of the Himalaya mountains, which is a great resort for Europeans in India, has arrived at his destination, and is making preparations to enter upon the work as rapidly as possible.

WE are glad to learn that the Claremont Sanitarium is fairly overrun with patients, and that the institution is in every way a pronounced success. The demand for similar institutions is world-wide, and not half the calls for the establishment of like enterprises can be met.

MR. AND MRS. DRUILLARD, recently of the Sanitarium at Cape Town, South Africa, have just returned to this country. Their able efforts in behalf of this institution and its equipment are very greatly appreciated by those who have been associated with them, and all who have the interests of this important work at heart are much disappointed that the failing health of Mr. Druillard made it necessary for him to resign his position in connection with the management of the Claremont Sanitarium, and return to this country.

WE are glad to hear encouraging reports from the Portland Sanitarium, which is doing good work in opening the way for a splendid enterprise to be developed in that city as soon as the necessary ways and means can be provided. The capacity of the treatment rooms of the building now occupied as a sanitarium is said to be too small to accommodate the present patronage.

AT a recent meeting of the Medical Missionary Board it was decided to start the publication of a monthly health journal in the Spanish language. This journal will be published at Guadalajara, Mexico, under the general management of D. T. Jones, superintendent of the Guadalajara Sanitarium. It will be issued by the Good Health Publishing Company, which will also issue at as early a date as possible a translation of Dr. Kellogg's "Home Book of Health," a new work, which has not yet appeared in English.

Kind Old Gentleman — "My little girl, are you happy?"

Little Girl — "O, yes, sir, I am full of happiness; in fact, sir, I could n't be any happier unless I grew some more." — *Sel.*

THE new GOOD HEALTH is attracting wide notice from both old and new friends. The following are a few of the words of commendation which have been received since the beginning of this year. The first is from Jay W. Seaver, Medical Director of Yale College, New Haven, Conn.

"In forwarding my subscription to GOOD HEALTH, I wish to send a word of commendation for the work you are doing. Reformed methods of living will mean reformed bodies. There is no

reason, except our own perversity, why we should be a set of valetudinarians."

"I think so much of GOOD HEALTH that I believe it should have for its motto the words of the Oxford edition of the Bible: 'Appointed to be read in the churches,' and I would add, 'in the family.' We know too little of ourselves, and are out of gear in many ways for lack of knowledge."

"There is a growing interest in the ideas you advocate. My wife, who is much interested in them, takes great pleasure in showing GOOD HEALTH to her friends of the Round Table Society and others, and we both hope you may be adding to your subscription list as the result of the awakened interest. It is astonishing how many people of intelligence there are who are not abreast of the times in these matters."

"GOOD HEALTH is one of the grandest publications of its kind I ever saw."

"Your excellent journal, GOOD HEALTH, came to hand in new dress, and the form was very much appreciated and the contents so good that I desired others to share with me in the good things it contained; so I have begun canvassing for it."

"I cannot do without GOOD HEALTH. I have sent you a good many subscriptions besides my own. I think it is worth many times its cost to any one who desires to know how to live right."

"I am delighted with the new number. GOOD HEALTH has grown invaluable in my home. I cannot say too much in its praise, it having been the means, to a great extent at least, of restoring my lost health. I naturally feel very grateful for 'value received.'"

"I had been wondering why your magazine was so late, but when it came in its new dress, I understood. I am well pleased with its new appearance, and find it more interesting than ever."

"We are delighted with the new dress in which GOOD HEALTH appears this year."

"Your monthly magazines are most useful. I wish everybody could read them."

"GOOD HEALTH is such a grand paper that I cannot get along without it."

"Permit me to say I think GOOD HEALTH improves with each month. We find it a great source of help."

IT is gratifying to those interested in the extension of vegetarian principles to note the great interest which has been awakened in the use of nuts as food. The Sanitas Food Company report that they are now manufacturing and sending out several tons of nut products every month. The demand for these goods comes from all parts of the civilized world. Nuts are, without doubt, the vegetable analogue of meat, and afford the most concentrated form of nutrient material.

"MY daughter is too democratic in her ideas," sighed Mrs. Hawkins. "I wish there was some way to make her an aristocrat."

"Send her to a cooking-school," said Mrs. Barlow. "There is nothing more haughty in this world than a good cook." — *Sel.*

THE choice goods of the Battle Creek Sanitarium Health Food Canning Factory have found so ready a sale that the entire output of the factory last season has already been practically disposed of. The committee having this department of the Health Food business in charge are, however, making arrangements to carry it on on a much larger scale the present season, so that all who have become acquainted with the choice goods of the company will have an opportunity to continue their use. It would be well for large consumers to send in their orders at once. The patients at the Battle Creek Sanitarium have a very high appreciation of these excellent canned goods, which appear daily on their bill of fare.

A trip to Europe free! see our Premium List.

THE practical campaign against tea and coffee which the Battle Creek Sanitarium Health Food Company is waging in the manufacture of caramel-cereal is meeting with most pronounced success, as evidenced by the fact that, although the factory devoted to the production of this coffee substitute is turning out more than a ton a day of the product, the company finds it impossible to keep up with its orders. Many imitations are in the market; none are so good as caramel-cereal, nevertheless the majority are better than tea or coffee, hence the more the better. It is hoped that the competition will become strong enough to drive tea and coffee from the market. Scientific physicians long ago learned the delusion in the poetic fiction, "The cup which cheers, but not inebriates;" but people in general are just coming to know that while this is true of such harmless cereal beverages as caramel-cereal, it is emphatically false as applied to tea and coffee, which always contain poisonous and deleterious substances, and which are unquestionably responsible for a great share of the nervousness, indigestion, sleeplessness, constipation, and other ailments which afflict civilized men and women.

WHEATOSE, a new cereal food, developed by the Battle Creek Sanitarium Health Food Company, is one of the most delicate and delicious of breakfast dishes. There is nothing like it. It is as much superior to grits, wheatena, breakfast food, wheatlet, and other similar products as gold is superior to silver. Send ten cents for samples, and be convinced.

MRS. BYERS is perhaps as witty and spry as any one of eighty. When celebrating her one hundredth birthday, a relative said to her: —

"Granny, you will not live to see another one hundred years," to which she replied: —

"Well, now, I don't know; I am starting out a great deal stronger on my second one hundred than I did on my first." — *Sel.*

THE Board of Women Managers of the Trans-Mississippi and International Exposition will meet April 6 at Omaha, Neb., to effect a permanent organization. The board is made up of representative women from various sections of the State, who were elected at mass-meetings called for the purpose. It was provided that the women shall have charge of the Bureau of Education in its various branches; viz.: The exhibits of the work of public schools, kindergartens, manual training and industrial schools, schools for the deaf, blind, and feeble-minded, art schools, reform schools, and all schools of special instruction; and that they shall also have charge of a series of congresses on various scientific and philosophical lines during the exposition — June to November, 1898. This board will also have jurisdiction over the women's exhibits and all matters of peculiar interest to women in connection with the exposition.

Health books free! see our Premium List.

THE Alabastine Company of Grand Rapids, Mich., have contributed a valuable improvement to domestic sanitation in the manufacture of an article known as Alabastine, which is certainly to be regarded as far superior, for a dressing for walls, to anything which has heretofore been known. It is practically free from glue, which constitutes the objectionable feature of ordinary calcimine, and hence does not, as does the latter, destroy the porous character of the walls. The porous walls breathe, as do the lungs, although of course the air passes through the walls very slowly. The amount which is thus allowed to enter, however, is enough to supply the needs of one person in a very large room, under ordinary circumstances. Paint and varnish, as well as calcimine, destroy the porous character of the walls, so that the house cannot breathe, thus causing dampness and the accumulation of air impurities.

After using Alabastine for some years, we are pleased to recommend it as superior to all other preparations for the purpose for which it is designed.

FIVE-YEAR-OLD FREDDY was showing the young minister about the place. His eyes frequently glanced up at the kind face, and then rested with a look of troubled inquiry on the pointed toes of the piccadilly boots. Finally he blurted out his anxiety in the question, "Ain't you got but one toe?" — *Babyhood.*

Treatment at the Battle Creek Sanitarium free! see our Premium List.

EVERY-DAY EXCURSIONS to all parts of the world can be arranged for any day in the year, for one or more persons, upon application to any principal ticket agent of the Chicago, Milwaukee & St. Paul Railway. Itineraries carefully prepared for excursions to California, Florida, Mexico, China, Japan, and to any part of Europe. Estimates furnished, including all expenses. Tickets furnished for the complete journey. It is not necessary to wait for any so-called "Personally Conducted Excursion." In these days of progressive enlightenment, with the English language spoken in every land under the sun, one does not need to depend upon the services of guides for sight-seeing, but can go alone or in small family parties, with great comfort and security, and at one's own convenience. Write to Harry Mercer, Michigan Passenger Agent Chicago, Milwaukee & St. Paul Railway, Detroit, Mich., for details, if you are contemplating a trip.

SOUTH DAKOTA in springtime is clothed with verdure green and spotted with the beautiful blue and white prairie flowers, tokens of luxuriant soil, like that fair country to which Moses led the children of Israel in ancient times. And like unto that land of plenty, South Dakota outrivals its sister States of the East in the products of its soil, sown, cultivated, and harvested in less time and with greater ease than in any other portion of the United States. And so we say to you that now is the opportunity of a lifetime to "go west and buy a farm." For descriptive lists and prices, address H. F. Hunter, Immigration Agent for South Dakota, 295 Dearborn street, Chicago, Ill.

GOOD ONLY UNTIL MAY 1, 1897.— The publishers of the world-famous twice-a-week Detroit *Free Press* wish us to announce the withdrawal of their trial subscription offer to send the paper ten weeks for ten cents after May 1. If you wish to take advantage of this special low trial rate, you must do so before that date. Remember that you get twenty papers for 10 cents; two each week. You cannot afford to miss this opportunity. Send 10 cents in stamps or silver to the Detroit *Free Press*, Detroit, Mich., and the paper will be sent you for ten weeks.

Do not forget to read our Premium List.

FREE FARM LABOR BUREAU.— In order to assist the thousands of unemployed men in Chicago, the Workingmen's Home, at 42 Custom House Place, has established a Free Labor Bureau, and is prepared to furnish men to farmers and others in all parts of the country without expense to either. Employers applying should state definitely as to the kind of work, wages to be paid, and if railway fare will be advanced. Address, Labor Bureau, Workingmen's Home, 42 Custom House Place, Chicago, Ill.

"UNCLE SIMON, what is old-fashioned politeness?"

"It is a way people used to have of asking a man about his health and then listening until he got through replying." — *Chicago Record.*

WHAT A MAN CAN DO IN SOUTH DAKOTA WITH $1000.— He can buy 160 acres of good land for $1000, paying $400 down; balance in three payments due in three, four, and five years, at seven per cent. He can also buy one hundred choice ewes for $300 and ten good cows for $300. The milk and butter from the cows will pay all farm and family expenses. The increase of sheep and wool will pay off the mortgage before it is due. In five years he will have a farm all paid for and well stocked. For descriptive lists and prices address H. F. Hunter, Immigration Agent for South Dakota, 295 Dearborn street, Chicago, Ill.

WHY not take a trip through the Southwest to the Pacific Coast? If you have never been there, it will be a revelation to you, and will furnish you with pleasant memories enough to last the balance of your life. The proper route is via New Orleans and the magnificent service of its special Sunset Limited through train on the Southern Pacific. This magnificent train leaves New Orleans every Monday and Thursday morning, and takes you, without change of cars, right through to San Francisco. It is a solid, Pullman-built train, vestibuled throughout, steam heated, and lighted by Pintsch gas. It comprises, in its equipment, a drawing-room for ladies, the first car of its kind ever built for any railway, smoking-room for gentlemen, bath-room, buffet, barber-shop, drawing-room cars, and an unexcelled dinner; a library of well-selected books and all the current periodicals, which are at the disposal of the passengers. A ladies' maid accompanies the train, whose services are at the disposition of the lady passengers. If you are contemplating a trip to California, or have any friends who think of going there, write to W. G. Neimyer, Gen. Western Agent, Southern Pacific Co., 238 Clark St., Chicago, who will cheerfully send you literature descriptive of the scenic and romantic features of the line and the train.