

JUNE, 1890.

GOOD



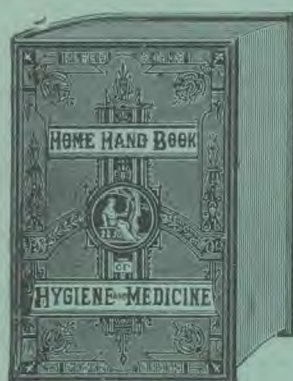
HEALTH

CONDUCTED
BY

J. H. KELLOGG M.D.

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[SEE HAPPY FIRESIDE.]



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JUNE, 1890.

INTERNATIONAL HEALTH STUDIES.

BY FELIX L. OSWALD, M. D.

Author of "Physical Education;" "The Bible of Nature," Etc.

14.—The Sunda Islands.

ABOUT a hundred years ago, Prince de Ligne, a countryman of Maria Theresa, published a curious pamphlet on the "Traditions Concerning the Location of the Earthly Paradise." Armenia, Persia, Asia Minor, Arabia Felix, the Caucasus, and the south slope of the Himalayas, seem all to have sometime and somewhere enjoyed the honor of being supposed to answer the description of the "garden eastward in Eden;" but the author of the treatise inclines to the opinion that all their claims must yield to that of the Sunda Islands, or rather the great archipelago extending from the southern extremity of Hindostan to the northern group of the Philippines. Here, if anywhere on earth, man can be supposed to have found the means of survival without the assistance of climate-defying arts, and here, too, the animal kingdom makes the nearest approach to the human type in several species of anthropoid apes,—the marvelously intelligent orang, and the musical-voiced gibbon, the only mammal whose vocal faculties rival those of man and of the tropical birds. From an ethnological point of view, too, there is a good deal of evidence in favor of the hypothesis that the cradle of the human race must have stood somewhere on the northeastern shores of the Indian Ocean. The traditions of all European nations point to an eastern origin, while the autochthons of our own continent trace their descent to some race of emigrants from the west shores of the Pacific; and the traveler Vambery calls attention to the suggestive fact that on every larger division of the land surface of our globe, the desert regions—

indicating the early arrival of forest-felling colonists—are found chiefly on the side *turned toward Asia*, as in the east of Europe and Asia Minor, on the northwest coasts of Australia, in the northern half of Africa, and on the western slope of the American continent.

No other region on earth, seems, indeed, so exquisitely adapted to supply all the wants of a creature answering the Darwinian conception of our primitive ancestors. Geologists have no doubt that Sumatra, Java, Borneo, and Celebes were once connected with the mainland of Asia, and the same chain of lofty mountains extends through the entire length of the vast archipelago, presenting everywhere the same mineralogical characteristics and the same tendency to form plateaus and broad terrace-lands. On the airy heights of those terraces, refugees from the fierce heat of the coast swamps could pass the summer in comfort, and Sir Samuel Baker's account of the Plateau of Newera Ellia,—the "King's Highlands,"—in Western Ceylon, seems almost to refute the theory of that knowing Roman epicurean who held that a sensible man, like a bird of passage, ought to change his habitat with the change of the seasons. The climate of the "King's Heights" seem to resemble that of a perpetual May, or the early summer of Switzerland and the Southern Alleghanies,—whole weeks of sunny days, of the exact temperature to make outdoor-life a luxury; pleasantly cool nights, and entire freedom from the plague of tipulary insects. Only here, the equator, the "equalizer," quite deserves its name in

regard to the thermal conditions of the tropics; for in the lowlands, periods of protracted, and almost intolerable, heat alternate with the daily shower-baths of the rainy season and the tremendous typhoon-storms which in five hours often lower the temperature by half a hundred degrees. The highlands, like the abode of the Olympian gods, enjoy immunity from such afflictions of the lower world,—from their gnats and land-leeches, crocodiles and malarial fevers,—and often bask in golden sunshine while the monsoon-gales roll their rain-clouds over the jungles of the coast plain. The forests of the uplands are free from the ravages of frugivorous bats, and year after

tioned that on his return from an absence of eleven months, he found a plantation of young casuarina-trees grown to a height of thirty feet, while his house was encircled by a shrubbery of nutmeg, clove, cocoa, and cassia trees, which had grown up as if by magic. The nutmeg-tree is especially attractive; it bears in profusion, spreads its branches in a wide circle, and the foliage and fruit are perhaps the most beautiful in the world. . . . He had a delightful garden, and no end of living pets,—children, tame and wild monkeys, dogs, birds,—a perfect *regne animale*, to say nothing of the surrounding forest, constantly under contribution. He had one of the prettiest little men



DYAKS OF BORNEO.

year some three-score different varieties of fruit trees produce abundant crops, not to mention the wealth of roots and berries, of wild-growing grapes, and of rock-honey—the produce of a wild bee that often gathers four gallons of honey per swarm in a single year. Game, too, abounds in the hill-forests,—elk, deer, and wild boars are found in the gorges of every highland river, and flocks of grouse frequent the slopes of the flower-spangled mountain meadows.

Yet similar plateaus can be found anywhere in the Sierras of the three main islands; and the most Eden-like private home of modern times was perhaps Sir Stamford Raffle's residence in the uplands of Sumatra. "As a proof of the luxuriance of vegetation in these islands," says his biographer, "it may be men-

of the woods (orang-outang) that could be conceived, little more than three feet high, and in disposition and habits the most amiable creature conceivable. Its face was jet black, and its eyes most expressive. . . . His children were his pride and delight, and they had already imbibed from him many tastes it was his pleasure to cultivate. This will not be wondered at, even at their early age, when it is added that two young tigers and a bear were for some time in the children's apartments, under the charge of their attendants, without being confined in cages; and it was a rather curious scene to see the youngsters, the bear and the tigers, a blue mountain-bird and a favorite dog, all playing together, the parrot's beak being the only object of awe to the whole party."

Yet that paradise was invaded by the same destroyer that has desolated thousands of homes in British India,—a climatic fever, brought on by the unhappy infatuation of transferring the dietetic habits of Northern Europe to the winterless climate of the tropics. The proprietors of the upland villas cannot limit their excursions to their mountains, and during an incidental visit to the trading-posts of the coast, beef, pork, and porter result in putrid fevers, which scare the survivors into a hasty return to a land where antiseptic frosts enable them to outrage the health laws of nature with comparative impunity.

The natives of the Sunda Islands are addicted to certain vices (gambling, idleness, etc.) which partly justify the belief in the concomitance of low morals and low latitudes, but are physically a practical illustration of the truth that the neighborhood of the equator can be reconciled with the enjoyment of abundant health. Captain Lasalle, of the Batavia garrison, describes the warriors of Acheen, in Western Sumatra, as "athletes, almost to a man, and able to defy any climatic vicissitudes of their native wilderness. During more than one engagement, stones the size of an orange, and hurled without the aid of slings, whistled about our heads in a way as if they had been fired from a battery of howitzers. When routed by a bayonet charge, the propellers of those missiles would dart off with the speed of panthers, and baffle pursuit, even while running zigzag to confuse the aim of our sharp-shooters."

Nor are such athletes the exclusive product of the highlands. The Dyaks of Borneo are indefatigable hunters (hunters of men, too many of them), and the Moslem natives of Java can match the best wrestlers of Western Europe. "The stranger traversing Batavia," says the traveler De Molins, in his "*Tour de Monde*," "cannot be an uninterested observer of the motley crowd around him. Among the numberless half-clothed men, he sees none but brawny shoulders and wiry, muscular frames. The perfectly naked children gamboling in the full rays of the sun, look like fine antique bronzes, so graceful are their attitudes, and so faultless their mold. The Malay in his turban, tight-fitting green vest, and gray kilt striped with whimsical patterns, has quite a graceful head. His face is oval, with eyes of almond shape, and a thin, straight nose, and his high broad forehead is admirably formed. All do not, perhaps, possess so many advantages, but they are almost without excep-



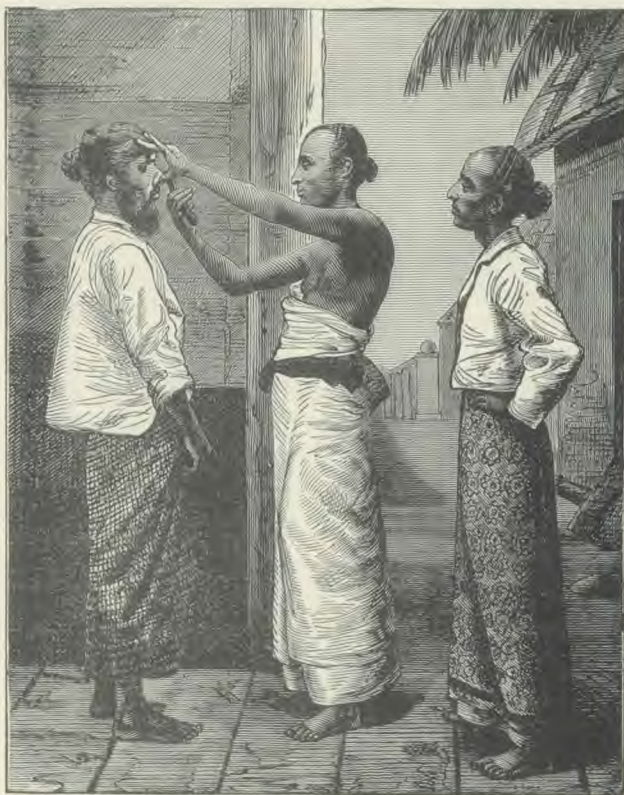
MALAY RUNNING AMUCK.

tion finely made, with beautiful black, smooth, and silky hair."

Temperance and abstinence from flesh-food, especially during the warmer months of the year, explain the physical vigor of those children of the Far South. Their dietetic habits are not founded on religious prejudice, like those of the orthodox Hindoos, but they are vegetarians from choice, and during the long summer live chiefly on rice, *ghee* (clarified butter), plantains, millet-porridge, and boiled yams. Their aristocrats indulge in a more miscellaneous bill of fare, chiefly, perhaps, to demonstrate their ability of defraying the costs of viands; and in the *menu* of a fashionable Javanese banquet we find the following remarkable made-dishes: "Pepper pickles; salt fish, dried in the sun while alive; half-hatched eggs, also salted; the seeds of various plants, boiled and spiced; a hash of meats, perfumed with roses and jessamine."

The stimulant vices of the Sunda Islanders, are, however, chiefly limited to their caustic condiments, and their chewing quids of betel leaves,—a pungency affecting the lips and tongue of the chewer, but, on the whole, perhaps more harmless than chewing tobacco, and decidedly less injurious than tobacco *smoke*. The nicotine-habit has but few votaries in the Sunda archipelago, and experience has taught the natives to dread the effects of alcohol, which in their climate proves more swiftly fatal than almost anywhere else in the world. Brain-fevers and convulsions are frequent consequences of a single day's revel, and opium, which further north only impairs the working capacity of its victims, is here apt to produce delirium and

fits of aggressive frenzy. It is a mistake to suppose that the paroxysms of the "amuck runners" are caused by hashish alone. Among the Malays of Java and Celebes, opium is the principal cause of the strange phenomenon, which in the course of the last



BARBER OF CEYLON.

ifty years, however, has become as rare as remarkable. The native courts of justice authorize their constables to catch the knife-armed maniac, dead or alive, and the culprit may think himself lucky if he

gets off with an ox-hiding and the loss of his right hand.

Another habit which enables the natives to brave the midsummer-heat of their coast lands, is their sensible fashion of limiting their dry goods to the very minimum compatible with decency and the municipal regulations of the European officials. The fruit vendors who visit the trading-posts of Sumatra, wear a mere apron of home-made linen, or at most a sort of tunic with short, wide sleeves. Their children dispense even with such compromise garments, and their night-clothes are little more than coat-shaped mosquito screens.

The Cingalese (natives of Ceylon) are Buddhists, and extremely fastidious in the selection of their food, though in the coast jungles of the same island travelers have come across a few survivors of the aboriginal *Veddahs*,—perhaps the most primitive race on earth, and living *a la gorilla*, on the insects and wild fruits of their native forests. The Buddhists of the semi-civilized districts trace their origin to the mainland of Asia, but observe the precepts of their creed far more strictly than their Chinese and Siamese fellow-believers. Flesh food, even in the form of fish and turtle-meat, is rigorously excluded from their bill of fare, and with all their indolence, they are remarkably cleanly. Three baths a day are not thought too much in warm weather, and the street barbers of Kandia are kept busy every evening, especially on the eve of the numerous holidays. Like the Hindoo fakirs, these Buddhists are practical stoics. In good luck or bad they preserve their habitual air of stolid resignation, and from hopeless troubles are apt to take refuge in suicide, with an equanimity due to an innate disposition, perhaps as much as to the nihilistic tenets of their faith.

SYMMETRICAL DEVELOPMENT.

[Abstract of a lecture by J. H. KELLOGG, M. D.]

WHAT do we mean when we say that one person has a good constitution and another person a poor one? The constitution of an individual is precisely the same as the constitution of a wagon or other piece of machinery. A wagon with large, strong wheels and light carriage axles would only stand up under a load proportioned to the strength of the axles. The harmony of the parts must always be considered. So we may say that the constitution of the body depends upon the quality of the structure and the harmony of its parts. A good constitution is a bodily condition in which all the organs are in-

tact, each well developed, strong, and harmoniously adjusted to each other. The harmony of adjustment is of just as much importance as the integrity of the structure.

Did you ever consider the reason for uniformity of bodily growth; for instance, how the little finger always bears the same proportionate relation to the rest of the hand from infancy to maturity? Symmetrical development depends upon the proper action of the heart in its distribution through the blood-vessels the nutrient elements taken into the body. If through any defect or malformation a part gets too

much blood, it grows too fast. We often see upon the streets a demonstration of this in the "rum blossom" on the drunkard's nose. Alcohol has paralyzed the nerve which controls the blood-vessels of the nose, and so that member gets too much blood. If the heart beats too slow, there is always great irregularity in the circulation: too much blood in one organ, and too little in another. If the heart is too strong, the blood is driven with too great force to all parts of the body, and this excessive tension is liable to work great injury.

Suppose the lungs are weak while the rest of the body is strongly built. The lungs cannot purify the blood fast enough to keep up with the waste incident to vigorous muscular action, and the individual is liable to die of consumption. Another may have splendid digestion, and be lacking in vigor of liver or kidneys. Such a one will be almost certain to overload his stomach, and thus put too great a tax on the weaker organs. In still another, the inequality of development may be in a weak nervous system, while the muscular system may be strong and the bones large. This condition is becoming very common, for we live in an age of nervous diseases; but

its effects upon the general health are much the same.

Again, suppose a man is born with lungs large enough to last a century, and bones and muscles strong enough to last, with care, for two centuries, and yet with a heart only capable of lasting forty years. He will die when the forty years are up, unless he does something to make his heart stronger. Thus a one-sided development becomes a sort of physical predestination. This explains why many persons who are apparently feeble live on to be sixty or seventy years of age, while others apparently of ten times the vigor are taken off by a slight illness. If unevenly adjusted, whenever the weak spot is attacked, they will easily succumb. The strength of a constitution is only the strength of its weakest organ.

It is plain, then, that this matter of balance is of great importance. A well-balanced constitution is exactly like "the deacon's one-hoss shay;" it should wear equally, and go to pieces by a gradual and natural process. Those thus perfectly developed, instead of being snatched away by violent deaths, would fade slowly out of existence, quietly and painlessly, as if going to sleep.

SHORT TALKS ABOUT THE BODY, AND HOW TO CARE FOR IT.

BY A DOCTOR.

Remedies other than Dietetic for a Torpid Liver.

ASIDE from regimen of diet, exercise, etc., one of the best remedies for a torpid liver is the old-fashioned one suggested by Preces of Wurtemberg,—the wet girdle. A towel wrung dry enough not to drip, placed around the body about twice, and covered warmly with flannel or oiled silk, worn over night, stimulates the liver and other organs in the vicinity, and also aids the skin to do its duty. In the morning the bandage must be removed, and the surface bathed with tepid water, rubbed with a little oil, and then covered with a dry bandage for day wear. In fact, a simple dry flannel bandage will have a good effect, the increased warmth being also a stimulus.

Hot fomentations are also very beneficial. Wring flannel cloths from hot water, and place them over the liver, with dry flannel outside, changing for another hot flannel cloth every five minutes. Remember that the liver lies above the lower border of the ribs, and that fomentations applied over the liver are beneficial to the stomach also. If you have no means of heating water readily, wring a cloth from cold water, throw a newspaper upon the stove, and lay the wet cloth upon it. The moisture will prevent the paper from

burning, and in a few moments you will have a hot fomentation ready for application. A hot stove-pipe may be made to serve in the same manner.

A wet sheet rub is an excellent remedy. Wring a sheet from tepid water, wrap it around the patient, and rub him vigorously for a few moments. Wet sheet packs, sitz baths, and a number of other treatments of this class prove very satisfactory for liver complaints.

Aside from hydropathic remedies, one of the most useful means of stimulating the action of the liver, is percussions over the organ. For this purpose a variety of muscle beaters will be found available, and any means of producing vibrations will be helpful. Massage is good, but to be used advantageously, the fingers of the operator must be crowded up under the ribs. With some persons, the abdominal walls are so thick that this is impracticable.

Electricity is excellent, particularly galvanic currents. As an illustration of the stimulating effect of electricity upon the nerves, the patient often finds his mouth full of saliva, the same nerves which stimulate the salivary glands running also to the liver, and

other organs of the abdominal cavity. The liver is made to pour out large quantities of bile almost immediately, just as the glands of the mouth pour out saliva. With the current applied to the spine, the patient often breaks out into a profuse perspiration, as a result of glandular activity.

I have already explained how oxygen can be utilized with great advantage by means of deep inhalations and out-of-door exercise; but after all, the proportionate increase of oxygen in the portal circulation is very small, as the pulmonary and the systemic circulations must first deplete it. At best we can take in only about one fourth above the average quantity of oxygen by inhalation, and of this the liver would receive as its share only about one-twentieth part. Oxygen is very necessary for the work of the liver in converting the uric acid into urates. All through the thirty feet of alimentary canal it is necessary for the destruction of the germs which may have found lodgment and growth. The ptomaines and other poisons which these germs form, all the metallic poisons which come to us incidentally through our food, or which are administered as medicines, as well as the alkaline substances from hard water, etc., must be looked after by the liver, and either oxydized or stored within itself, if health is to be preserved. In chronic dyspepsia, the amount of these poisons is very great, and the kinds of germs and the kinds of fermentation which they set up are numerous.

Now the question is, cannot oxygen be introduced into the system in some way that will give the liver a better chance, and also prevent the action of the germs in the alimentary canal? A few years ago there was considerable excitement over enemata of sulphuretted hydrogen. I took no stock in the claims for it, but the theory suggested to me the idea that if oxygen could be so used, it would be of great benefit. If introduced directly into the alimentary canal, the millions of little absorbents would take it straight to the liver, and then that organ would have full benefit. I made some experiments along this line. Among others, I took a Guinea pig, put it under the influence of an anesthetic, and made an opening which brought its intestines into plain view. The arteries and veins running side by side were plainly distinguishable by their color, the one bright red, and the other dark blue from being full of impurities. I then injected a quantity of oxygen into the alimentary canal, and in less than one minute it was impossible to tell the veins from the arteries, so rapid had been the purifying influence of the oxygen upon the impure, venous blood. I allowed the oxygen to escape, and in a little time the veins became blue again. I tried the experi-

ment again and again, and so proved that it was possible to purify the blood before it went to the liver, and thus to send the liver a large supply of pure oxygen to help in its work of oxygenating the various poisons and impurities which come to it. And not only that, but contact with oxygen in the alimentary canal will kill many of the germs which may be at work there. There are certain germs grown in the deepest part of the alimentary canal, where very little air reaches them, which are not unlike the fungi that grow deep underneath logs in dense woods, which a free circulation of air will destroy. In like manner, oxygen may be used as a direct antiseptic for the alimentary canal. Take a glass of milk which is so full of tyrotoxicon that the introduction of it into the stomach would set up symptoms of poisoning, and let it stand uncovered awhile, or pour it from one vessel to another, and the poison will be neutralized almost entirely by the oxygen of the air.

A little later I made the experiment upon a patient who was suffering from severe uric acid diathesis, which is one of the symptoms of a torpid liver. This is indicated either by brick-dust or pinkish sediment, or a whitish deposit in the urine. If the liver acts properly, this is changed into urea. This patient had been under treatment for four months, and everything in the way of diet had been tried, and still the deposit of uric acid each day was enormous. We had taken away beef and milk, and all kinds of nitrogenous food; then we took away the grains, and finally the vegetables, and the poor man was living upon fruits and water; and yet the quantity of uric acid was scarcely diminished. He drank a gallon of water every day to wash out his liver and kidneys; his eyes and skin were dingy, and he was in a terrible condition. We tried the effect of the introduction of a gallon of oxygen a day directly into the alimentary canal, and in three days not a symptom of uric acid remained. Once during the first month of treatment there was a slight reappearance of uric acid. In six or eight weeks the gentleman returned home cured of his torpid liver and its dreadful effects. I heard from him recently, and he was still in sound health.

I tried it upon another case afterward, where from careful analyses made every day, it had been shown that the patient was making three times as much uric acid as he should. Within forty-eight hours after we began the use of oxygen enemata, the amount was reduced to the normal, and a continued use reduced it to one half of the ordinary amount.

I have also used it successfully in cases where the liver failed to do its work of converting sugar into starch. In diabetes there is almost always large uric

acid deposits. In one case under treatment, the amount discharged was eight ounces daily. In three weeks the quantity was reduced to a tenth of a dram. Before this the patient had been put on a non-saccharine diet, which had proved of some avail, and was of course favorable to the special treatment. The man gained in flesh and strength, and for two years

now he has been enjoying a good degree of health.

In cases of Bright's disease, where large quantities of albumen are lost from the system, I have used this treatment as an aid to the liver, which is loaded with urates, and found it to reduce the amount of albumen very rapidly. There is doubtless a great future in the uses of oxygen enemata.

UNWHOLESOME SLEEP.

Not always is sleep "tired nature's sweet restorer." Sometimes, instead of a balm, it brings a bugaboo in the shape of the nightmare. Man is a wonderful piece of work, but his machinery may be thrown out of gear and set a-whizzing by so slight a thing as a late supper. An indigestible Welsh rare-bit at 11 P. M. may result in a big, suffocating black dog across his chest at 1 o'clock in the morning; an over-plus of loaf-pastry, which his gastric juices can not conveniently assimilate, may precipitate him from a precipice in dreamland into a bottomless abyss; or a surfeit of *pate de foie gras* send him to a Morphean gallows, there to endure all the tortures of actual strangulation.

This sort of thing, by the way, is only one remove from apoplexy, and the incubus-ridden victim of inordinate and untimely self-indulgence is likely enough to be at last bestridden in his sleep by a nightmare too strong for his vitality—even death. The term *nightmare* is supposed to have been derived from *Mara*, the name of a demon which, according to the Scandinavian mythology, pounced upon men in their sleep and held the will in thrall. The old Saxons

called the distemper *Elf-sidenne*, or elf-squatting. With the doctors it is *Ephialtes*, from a mythic giant of that name who undertook to climb to heaven, but, missing his foothold, tumbled into the fathomless depths. Most of us have probably been convulsed in our sleep with the same sort of horror which the tripped-up Titan is fabled to have experienced during his "lofty fall" from the celestial battlements. There can be little doubt that many of the specters of the Dark Ages were *Maras* begotten of indigestion. Your Saxon gormandizer, who sometimes feasted far into the night on boar's flesh and venison pasty, washing them down with frothy mead, must have gone to bed with his stomach in a nice condition. No wonder that of the internal fermentation, caused by such stuffing and swilling, hobgoblins and hippogriffs in endless variety were born.

The surest way to avoid the nightmare and procure that sound, healthful repose with which each day's life should be "rounded off," is to live temperately, regularly, and honestly. Aye, honestly, for a troubled conscience, as well as an over-laden diaphragm, may engender evil dreams.—*Sel.*

OLD PEOPLE.—A woman recently died in Vienna at the advanced age of 114 years. According to the *Sanitary Era*, "the village of Dafia, on the island of Lesbos, boasts of an old lady who is 145 years old, and has the complete use of her senses. The island of Sappho contains three other super-centenarians. A certain Ismael Apa is 130 years old, Khalil Apa is in his 119th year, and Aschik Bana has just reached his 115th year. What is most remarkable in these three male centenarians, according to the correspondent of a Berlin paper, is that they are obliged to work for their daily bread." These super-centenarians all belong to races whose dietetic habits are vegetarian. Human vegetarians, as well as vegetarian animals, have long been noted for longevity. The elephant lives a century, and the vegetarian donkey lives half as long.

NO PLACE FOR DOCTORS.—An old book tells the following story of a French doctor seeking a place to begin practice, which point out a valuable hygienic lesson: "A French doctor went to Damascus to seek his fortune. When he saw the luxurious vegetation, he said, 'This is the place for me; plenty of fever.' And then on seeing the abundance of water, he said, 'More fever; no place like Damascus!' When he entered the town, he asked the people, 'What is this building?'—'A bath!' 'And what is this building?'—'A bath!' 'And that other building?'—'A bath!' 'Curse on the baths! they take the bread out of my mouth,' said the doctor; 'I will get no practice here.' So he turned his back, went out of the gate again, and hid himself elsewhere. It would be well if every city were, in respect to baths, like Damascus, and all the people bathers."



DRESS AND THE USE OF COSMETICS.

BY J. H. KELLOGG, M. D.

THE American woman uses cosmetics because she thinks she requires them, and perhaps she does. Certainly they are used more extensively here than among any other class of women, unless we except the North American Indians, who bedaub their faces with various colors to add to their picturesque appearance. It may be that the prevailing custom of using powders and lotions for the face is partly due to false ideas of what constitutes a beautiful complexion; that the ideal standard is not the true one. I have known girls with clear, fresh complexions to deliberately set about spoiling them with cosmetics. A perfectly clear pink and white is not necessary to beauty; the rich, dark complexion of a brunette is just as beautiful, provided it be healthy and clear. But the object of the average user of cosmetics is to cover up dinginess and blotches, which she has reason to be ashamed of, because she is responsible therefor.

The skin is one of the excretory organs of the body, and carries off from one and a half to two pints of waste material every twenty-four hours. Brain work and muscle work are all the time breaking down tissues, thus creating poisons which would be fatal if retained within the body, so closely is inactivity always allied with death. If the action of any of the five great depurating organs is interfered with, the person will die from the accumulation of poisons which should have been eliminated by that organ.

When any depurating organ is injured, the remaining ones tax themselves to the utmost to do the extra work. We do one-fiftieth of our breathing through the skin, at all times; but when the lungs are injured, the skin tries to carry off still more of the impurities. There is this same relation between the skin and the kidneys, only it is easier for the skin to do a portion of the work of the kidneys than to do that of any other organ, as the composition of their tissues is more nearly alike. The kidneys may also do some of the work of the skin, if the skin is partially obstructed.

But when a part of the work of the liver is forced upon the skin, it is unable to make the changes nec-

essary to elimination, and so particles of organic dirt are deposited in the skin, and it becomes dingy, and loses its brilliancy.

The health and beauty of the skin, then, it is plain, must depend upon the health and integrity of the other excretory organs. The skin is naturally semi-transparent, as is all healthy living tissue. But it loses this characteristic, and becomes dull and opaque, when other work than its own is forced upon it; and this is just what happens when woman, by the wearing of corsets and tight bands, cripples and abuses the muscles of her body, and cramps the action of her lungs, liver, stomach, and kidneys in such a way as to disable them.

I have carefully examined about twenty thousand women, and I am sure that less than a hundred of them knew how to breathe properly. Tell a woman to take a deep breath, and a palpitation of the chest and a raising of the shoulders are the only apology for breathing she can manifest. Ask a man to take a deep breath, and immediately his ribs swell out just as the ribs of a dog or a horse or any other lower animal do in deep breathing. That is the way all uncivilized women breathe, also. They use the diaphragm, which was placed in the lower, expansible part of the chest cavity for that very purpose. But the civilized woman deliberately ties up this flexible portion of her body with bands of steel and whale-bone, so that natural breathing is utterly impossible.

Woman's dress should be just as loose as man's; for she needs just as much breathing space. The average woman, who thinks she is not lacing, and perhaps has laid aside her corset, has still her clothing so tight as to cut off a portion of the necessary air supply. It is the same as if she had put a constriction around her neck, not tight enough to choke her to death, and yet which would keep her from taking in a full supply of fresh air.

A liver which is in a vise cannot do its work, and I have found livers not only crowded out of place, but deeply creased with the pressure of the ribs; and other

livers which were doubled back and distorted into strange positions. Bind your wrists tightly with a large cord, and note what a constraint it puts upon the movement of the fingers. Strictures which compress the liver put a similar constraint upon its action. The bowels become inactive as another consequence, and then still more waste matter is brought to the skin in the efforts to rid the system of the accumulations of poisons. No wonder that the skin becomes dingy and muddy, and that woman feels that she needs something to cover it up.

But cosmetics do not produce a healthy skin, and there is a very perceptible difference between the appearance of a doctored skin and one which is fresh and healthy. The woman who uses cosmetics is quick to detect any other woman who uses them, but she is equally sure that nobody can detect her. Health is generally beauty; a healthy skin has a natural brilliancy which is always pleasant to look upon. I have seen peasant girls in Germany and Italy who worked out of doors, and were exposed to various hardships, and yet whose complexions would be the envy of any American belle.

ONE way in which every mother could economize her strength and her work, is to make the underclothing for the entire family very plain, and spend less time upon the outside garments of her children. This would be a saving at the outset, but counting what would be saved in strength and unnecessary heating and toil at the ironing-board, the balance would be very largely in favor of plain clothing. Try the plan for one year, and see if you are not healthier, happier, and less nervous.

EXPERIMENTS made by Drs. Hare and Martin on the nervous and mechanical government of respiration, show that the interference with the phrenic nerve, which controls the diaphragm, produces a peculiar style of respiration, the abdomen being retracted at the same time that the chest is expanded, the reverse of what should occur with the abdomen, as the descent of the diaphragm in breathing naturally, produces an outward movement of the abdominal wall. We have noticed in hundreds of instances, that women who have been accustomed to breathe under the restriction of tight waist-bands or corsets, habitually retract the abdomen when asked to expand the lungs. This would seem to indicate that the diaphragm has, for want of use, become partly paralyzed, or at least has fallen into a state of chronic idleness; and the difficulty experienced by these persons in

I wish I could make all women enemies of fashions which criminally distort and disfigure the human form divine. If women would combine to oppose every business, furnishing house, and dressmaking establishment which aids and encourages unhealthful styles of dress, we should begin to see some signs of reform; but so long as ladies want these things, they will continue to be supplied. If women could get the false ideal standard of contour which now demands a round waist, supplanted by the ideal of the Greeks,—that of an ellipse,—which was true to nature, it would be a great advance.

Nowadays, women do not have their dresses fitted to their figure, but to a "beautiful corset," with its difference of ten inches between the waist line and the chest measure. The average difference in a waist which has been untrammelled with torturing instruments of fashion, is but two and a half to four inches. Will you not accept nature as furnishing the true ideal? Then with room for full, free breathing, the eliminative organs will be able to do their appointed work properly, and there will be no temptation to use cosmetics; for there will be no blemishes to hide.

learning to breathe correctly, is very likely, in a large part, attributable to the habitual inactivity of the phrenic nerve and the diaphragm.

THE FOOT AND THE MODERN SHOE.—Nothing can be more unlike the human foot than the modern shoe. Let any one leave the impress of his or her foot in the wet sand of the sea-shore, and then place alongside of it the imprint of a fashionable shoe; that the two were ever intended for each other would scarcely strike a child of the forests. The North American Indian entertains juster notions about clothing this portion of his body than does the civilized denizen of New York or Philadelphia. Compare the moccasin with the shoe of the city belle. Compare the sandal or the buskin of Pollux and of Aristophanes with the same, and we shall see that the savage and the polished Greek alike understood the value of sound feet in the race of life. It is the imperfect adaptation of the shoe to the foot which constitutes the fruitful source of tired ankles, corns, bunions, overlapping of the toes, and ingrowing nails. Some idea may be formed of the magnitude of the evil from the fact that of eight hundred patients under the care of a prominent chiropodist of Philadelphia, the great majority of the defects were entirely attributable to the high heels and the contracted toes of the shoes worn.—*Sel.*

THE HAPPY FIRESIDE

DEVOTED TO TEMPERANCE MENTAL AND MORAL CULTURE
HOME CULTURE NATURAL HISTORY AND
— OTHER INTERESTING TOPICS —
CONDUCTED BY MRS. E. E. KELLOGG A.M.

TAKING CARE OF THE MACHINE.

BY E. L. SHAW.

THE girls of Chester High School had gathered in a knot at recess, and were discussing the subject of the coming party to which Nettie Hilyard had just invited them. The Hilyard's were wealthy people, living in a fine house, surrounded by beautiful things, and the school-girls knew from past experience that the invitation promised everything in the way of enjoyment that money could procure. They were very eager and interested at the prospect before them, so much so that for a few minutes none of them noticed that one of their number who was usually the gayest among them, was quite silent. Missing her voice and enthusiasm at last, they crowded around her.

"Why Kate Noble, what ails you? Have you been struck dumb all at once? I don't believe you have opened your lips once about going to Nettie's party!"

"No, I have n't," answered Kate, briefly.

"And why? we'd like to know," demanded a chorus. "Have n't you any interest in it at all? You act as if you did n't intend to go!"

"No," and Kate smiled pleasantly, "I do not." Then as she looked around at the girls, and saw the surprise and disappointment pictured on their faces, she laughed out merrily: "But please, girls, don't look as if you were plunged into such depths of woe about it! Since I feel sure mamma would n't like me to go, I'm going to try and behave like a reasoning being. Of course I should like to as much as any of you, but as I know I cannot, I shall not allow myself to think very much about it. When I was at home last (Kate boarded in her cousin's family in town), mamma talked to me a good deal about the care of my health while I was attending school,—she has been studying up about these things for my benefit, you see,—and said I ought to put myself under a regular course of training, to enable me to do the best sort of work. In her letter I got a few days ago, she says that I cannot do the amount of work before me

if I expect to graduate, unless I am just as regular in all my habits as I can be, and adds that I must on no account go out evenings, nor suffer my sleep to be broken into, until this strain is off. She says, 'take good care of the machine, daughter, if you want it to do its work well.' It's pretty sensible advice, too, girls. The getting ready for this party, and the getting over it, will eat into our slender stock of time before examination, fearfully, and whoever goes, may expect to do quite a bit of night study to pay for it."

"I don't care," said Belle Adams, "I'd rather sit up late a good many nights to get my lessons, than to miss the chance of such a lovely entertainment as we are sure to have at Nettie's."

"Your last letter from home came in a most unfortunate time for you, didn't it, Kate?" laughed May Graves. "If it only had been lost now, or at least delayed until after the party—"

One of her own dear mother's long, loving letters lost! A momentary picture of the dear, unselfish home group who had each and all gone without so many comforts, and given up so many pleasures, that she might be enabled to go through school, rose before Kate's eyes, and she interrupted May a little sharply: "A letter from home never could come to me in an unfortunate time, and I should know how mamma would feel about my going just now, anyway."

"But Kate," broke in little Annie Miller, "You don't really think that going out just this one night will do us girls such dreadful harm, do you? Just once so,—I don't see how it can. I think you are just too awful straight-laced, anyhow!"

"Do n't be a goose, Annie; you'll have to do more or less night work on account of this party, if you go, see if you don't! Mamma says it's so near commencement that I must be more careful than ever; for any little irregularity now might destroy what she calls nature's fine balance of the nerves, and if it did not

cause me to fail in my examination, it might make me break down in the closing exercises, where if not actually disgraced, I should be an object of pity to everybody, which to me would be about as bad. My papa and mamma," Kate drew herself up, "will take pains to come a long way to see how their eldest daughter carries herself through the trying evening just a little way ahead, and that same daughter intends, if she knows herself, to behave so as to be a credit to them."

"Dear me, Kate, I wouldn't expend so much energy in trying to be different from other people, if I were you," said pretty Nannie Dumphrey, languidly. "Besides, you really ought to go, because it is particularly made for our class. It'll be bad manners if you do n't!" The bell sounded just then, and Kate had only time to look back over her shoulder and shake her head in a smiling negative, as they all ran up the steps.

The evening of the party, the girls, all dressed, gathered at Nannie's. Kate, at the last moment, ran in, breathless, to see them off. "Good luck, girls;" she called after them from the steps, "do n't eat too much cake and candy, nor stay too late, or Madame Nemesis, in fifty different shapes, will call upon you to-morrow!" The evening air brought to her from far up the street, only gay laughter for answer.

Long after midnight, when the young revelers, weary and feverish, took their homeward way, with muslins hanging limp, and pretty flower knots all withered, they passed directly underneath Kate's window; but she did not know it, for her bonnie head was nestling deep among the pillows, where it had lain for long hours, with all her senses caught and prisoned in the sweet and restful slumber of youth and health.

The examination days came—and went, although they did seem interminable. Kate's class had a fine record. They had expected to pass well, after all their hard work, but all the same, each drew a long breath of relief when it was well over. And the most trying season of all was yet to come.

Commencement evening at length arrived, and the sweet girl graduates, arranged in the order in which they had been marked at examination, with Kate at the head, stood waiting in the little room at the back of the stage, in Columbia Hall, donning their white gloves, settling their laces and ribbons, fluttering their white fans, trying, meanwhile, to still the beating of their hearts, and gain the needed composure wherewith to appear before the large and waiting audience. It was a row of fair young faces, but the pitiless gas

light revealed on many of them a careworn expression, and now and then on one a slight pallor, which told its own story of the past few months. Nannie, always the most delicate, stood second in order, and the roses blooming on Kate's plump cheeks seemed to grow brighter by contrast with her pale face. She looked at her admiringly. "You're the freshest one in the class, Kate; *you* do n't intend to be frightened to death, and break down, do you?"

Kate smiled cheerily, "Not if I can help it!"

The other girls were chattering nervously. "Dear! dear! how I do dread it," Belle Adams was saying. "I took a swallow of wine just as I left home, but I would give anything now if I had n't, for it has given me a splitting headache."

Ambitious May Graves, rating, to her keen disappointment, only third in order, glanced, half enviously, at Kate. "How provokingly cool she is! Looks as if she never lost a meal nor a night's sleep in her life! She's been 'in regular training,' as she calls it, for months,—eating, sleeping, and everything arranged like clockwork, I suppose; maybe her food has been weighed and measured out to her,—I'm sure I do n't know. Breakfasts of oatmeal and fruit, I presume, and dinners of some horrid, plain stuff; and yet she contrives to wear such a serene, superior air, just as if she hadn't any nerves! I should think *I* would be the cool, self-possessed one. *I* have always had, as papa says, 'a good generous diet'—tea, coffee, hot rolls, buttered beefsteak, roasts, pies, puddings, cake, and all good things; but my limbs just fairly shake under me for all that. I do n't understand it!"

The preceptress opened the door. "All ready, girls?" And the hum of voices in the crowded hall ceased, as the girls filed in, and took their seats in a semi-circle on the platform.

Everything turned dark to Nannie, when she tried to rise to read. "O Kate," she cried, "I shall faint!"

"Hush! No, you won't," and Kate fanned her vigorously. "Go right along, now; read up good and loud—I'll cough if you do n't read loud enough!"

Poor Nannie begun in a very low voice. Kate coughed. She tried to read louder then, but her opening paragraph had been lost, even to those who sat nearest. Kate coughed several times, which had the effect of bringing her to herself somewhat, but throughout, in spite of Kate, she read in so low a key that none beyond a few of the front seats were able to hear at all.

Proud May Graves was so engaged in criticism of Nannie's performance, that she forgot her turn came next. She lost her self-possession entirely, rose in a flurry, went forward, made her bow to the audi-

ence, and then—realized that she had left her roll at her seat. She stood utterly helpless for a moment, with a dreadful roaring in her ears, until ready Kate, grasping the situation, came to her aid with the manuscript, and relieved her from further embarrassment.

Belle Adams, who was the class poet, with her head in a whirl from fright and the unlucky wine, took her position, and turning her leaves in a dazed way, turned two at a time, thus changing the witty story told by her pretty verses, into arrant nonsense.

The performance of the other girls was merely ordinary, while, one and all, they caught themselves looking on anxiously to Kate's *debut* to keep up the class reputation.

Stage-fright seemed contagious; for even when bonnie, self-reliant Kate rose to her feet, the lights, the flowers, the people,—all blended in one glittering mass, as she walked forward. She glanced at the sea of heads below her, and for one second a mad impulse seized her to jump down into their midst. But she gathered up her strength; "If I can only see mamma," she thought. Yes, there she was, and her papa too, both smiling up to her; and forgetting all the others,—as if in that great hall just they three

were shut in, together,—in clear, firm tones she read her valedictory to them.

In a dream she stood among the flowers, and received the congratulations which followed, the very heartiest of which came from Nannie, May, Belle, and the others of her class. Nothing of envy lingered in their hearts as they crowded around her; only an honest pride in her as their class representative, remained. And her parents' loving appreciation was never more sweet, for she realized that she owed wholly to their wise council and training the dear success of this evening.

Of all the class, the three, Kate, Nannie, and May, had planned to go to the university; but a long prostration, dating from the excitement of that trying evening, kept Nannie a prisoner for many weeks, and left her an invalid for as many months. May, too, was pronounced, by her family physician, to be incapable of further work for some time. Her nervous system was quite too unstrung to allow it, and he wholly prohibited study for a year, at least. The girlish twain chafed much at the delay, but as the time finally came round when they were to re-enter school, they confessed themselves converts to Kate's belief in taking the best possible care of the "machine."

A TREE OF THE ORIENT.

BY S. ISADORE MINER.

IN sunny gardens of the Mediterranean coast countries, in grassy hillside orchards, or where it best loves to grow,—on calcareous cliffs overhanging the sea and catching the freshness of its salt breezes,—stands



OLIVE FRUIT AND FLOWER.

the olive-tree, familiarized in lands it never knew by the associations of Holy Writ. Its gnarled and twisted trunk, with straggling, lifeless-looking branches, make it anything but an object of beauty to foreign eyes; but when blossom-time covers it over with a

flowery veil of fragrant white, or when fresh breezes rustle its oblong-pointed, gray-green leaves till the hoary scales on their under surface gleam in the sunshine like a sea of silver, it has a loveliness of effect peculiarly its own.

The olive-tree thrives under very little care, in fact, grows almost indigenous; and from the time it begins bearing, at the age of about seven years, produces enormous crops every other year, until it attains a great age. Its small white flower develops into a plump, egg-shaped berry, though differing much in color and size with different varieties. Its pulp is extremely oily, and for the oil expressed from it is it chiefly esteemed, though after being pickled in a brine or preserved in oil, it is largely used as an article of relish.

The olive orchards are laid out in a somewhat "community" manner; that is, there are no fences or dividing lines, but the trees of a number of owners grow together. This tree belongs to one man, the next to another. But they have a regulation prohibiting the gathering of the fruit till a crier proclaims the harvest; so all stand an equal chance of getting what belongs to them. After the last "harvest cry,"

whatever remains ungathered belongs to the poor gleaner, who owns no trees, and has no other way of procuring this to him more than luxury.

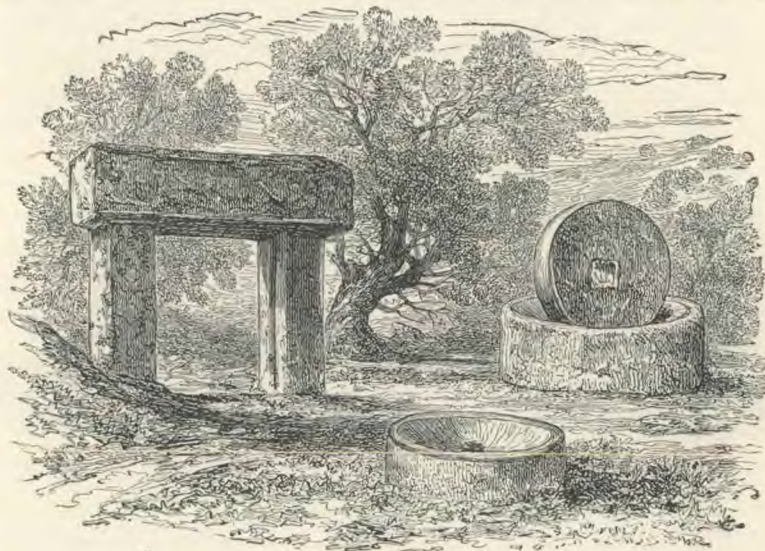
After the harvest comes the oil-pressing. For this purpose the non-progressive native of the East still clings to the methods and equipments of the past, though a European grower of olives on a large scale, has demonstrated by machinery in actual use in his factory, that the oil can be obtained much easier and cheaper, and of much better quality, by means of a modern press. Some of the presses now in use are the identical ones of hundreds of years ago, many of them hewn out of the solid rock. They consist of two upright posts about two feet apart, with a beam resting above,—all of stone. Down the inner side of the posts runs a deep groove, in which moves the plank that presses the olive "cheese," by means of a lever acting upon the ponderous beam.

The olives are first crushed in a stone vat, with a drain at the bottom for the escape of the oil. The "crusher" is a heavy stone wheel, with a pole passed through the center, that it may be easily rolled around the vat. This work usually falls to the lot of women. The first oil that runs off—that which escapes from the vat—is the best. Then the pulp is put in the press, and squeezed as dry as possible. This gives an oil of fair quality. But when the pulp is afterward put into hot water, the oil skimmed off is of inferior grade. The best oils are used for commercial interchange, and figure largely in the *cuisine* of the East, everything being cooked, saturated, or eaten with oil. The best grades of oil are of greenish-yellow color, and of sweet, nutty flavor. The poorer grades are darker, containing more of the lees, and are used in soap-making and for lamp-oil. There are as high as twenty soap-factories in one small village devoted to the olive industry; and the denizen of the East depends wholly upon the oil for lighting purposes, using the same style of lamp as did his fore-

fathers—a sort of flat pitcher with lip for the wick, the kind we see in illustrations of the parable of the Ten Virgins.

A mature olive-tree will yield from ten to fifteen gallons of oil each season, and the produce of an acre is seldom worth less than one hundred dollars, making a very valuable crop in a land where a dollar will go farther than three or four in ours. Of late years, several substitutes for olive-oil have been put upon the market, the best of which, in our own country, is cotton-seed-oil.

The olive-tree will grow as far north as the south of England, on the sunny side of protecting garden-walls; but its fruits scarcely mature ere the early



ANCIENT OLIVE PRESS AND VAT

frosts send them to the ground. The wood of the olive is extremely hard, beautifully mottled in greenish-yellow and brown, and susceptible to a fine polish. For this reason it is highly prized by cabinet-makers. Its roots, still more hard, are made into ornaments and *bric-a-brac*. Some varieties exude a sweet-smelling gum, much used in Italy as a perfume. Olive-leaves also possess certain medicinal properties, and the species growing in China bears a remarkably odorous blossom, esteemed for flavoring the most fragrant grades of tea.

THE LIVING PRESENT.

LET us think less of what appears,—
More of what *is*; for this, hold I,
It is the sentence no man hears
That makes us live, or makes us die.
Trust hearsay less; seek more to prove
And *know* if things be what they seem;
Not sink supinely in some groove,
And hope and hope, and dream and dream.

Some days must needs be full of gloom,
Yet must we use them as we may;
Talk less about the years to come,—
Live, love, and labor more *to-day*.
What our hand findeth, do with might;
Ask less for help, but stand or fall,
Each one of us, in life's great fight,
As if himself and God were all.

—Alice Cary.

THE OLD BRIDGE.

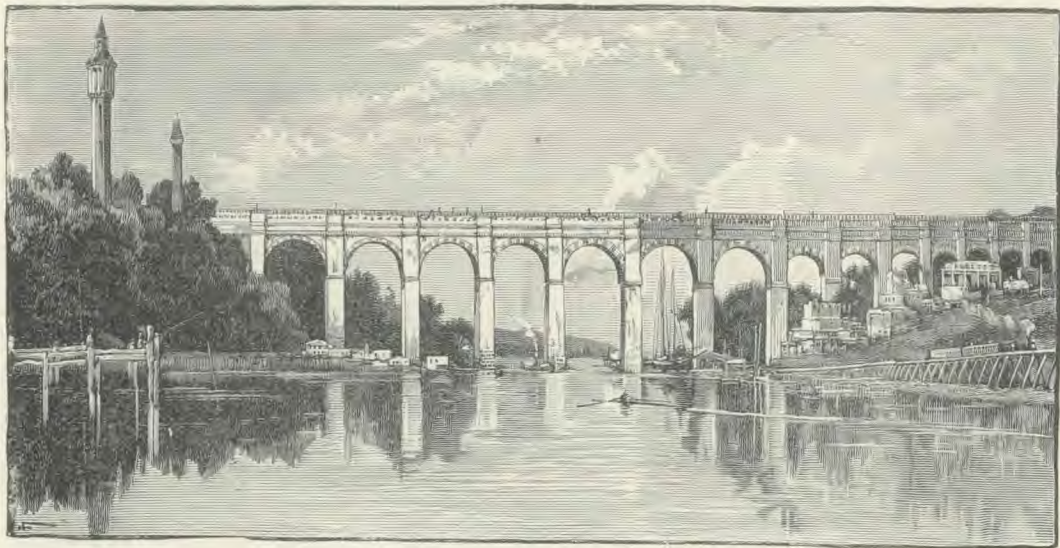
WHATEVER may be the advantages derived, we enjoy our American progressiveness very much at the expense of the picturesque. In the old country, artists yet find choice accessories to nature's charms in the ancient mills still grinding the rural grists, their long arms, stretched to catch the favoring breeze, silhouetted against the sky, or with clumsy wooden wheel receiving the weight of water plunging over the dam, and churning into foam the depths of the pool beneath; and in the rustic bridges, too, that span the streams meandering across country roads from wood and meadow, or cling to dizzy cliffs far up some mountain height.

But water power has given way to prosaic steam, and cantilever and suspension structures, with their cold lengths of glittering steel, have chilled the romance engendered by the old-time crossing, artistic in proportion to its insecurity; while the narrow railway trestle, stalking through the land like an exaggerated thousand-legged worm, is enough to spoil the nature in any landscape. Even country scenes have been rendered mechanical by the invasion of lofty iron frameworks,—foundry-made, ready-to-be-put-together affairs, important with all the aggressiveness of red paint and a five-dollar-fine sign-board.

The old bridge, weather-beaten in hue and incongruous in design, with tipsy hand-rail and worm-eaten planking, has broken the monotony of many a foreground that otherwise would have appeared tame, and yet in so modest a manner as to detract little from the theme; while even our most famous artists have not disdained its possibilities as prime motive. Its cool recesses, in direct contrast with the sky-reflecting water, form a most pleasing study in light and shade; and if, perchance, the moon's soft light paves a silvered pathway down the stream, and cuts in bold relief the black bulk of the ancient crossway, what could be more striking? Even the more pretentious stone bridges we find on the more frequented public roads, in the old country, possess a certain air of picturesqueness in the high-springing arches of their abutments and piers of massive masonry, often half hidden by graceful vines, or dappled with green moss.

The old bridge is too valuable material to be wholly lost to artistic purposes. It will be reproduced from memory long after it has become a thing of the past, though perhaps time, and even the accustomance of the eye, may do much toward making a place in art for its successor.

S. I. M.



LIKE THE SEA.

I would be like the sea, that wide expands
And grows more infinite, as ages do,—
Clasp in my arms the utmost length of lands;
And I would love her depths, and be as true
To men as is the sea unto the sands.

I would be like the rocks along her sides,
My queen the pale, wan moon, that bending low
Dips cleansingly their brows in the rising tides,

And lodges pearls with them, and even so
The salt of truth that with the sea abides.

I would be like the crags above her piled,
And find the depth of anguish ankle deep.—
Wake with the morning and the shepherd's child
That o'er their foreheads whistles to his sheep,—
Lashed night and day, and always reconciled.

—*Overland Monthly.*

TEMPERANCE NOTES.

NOT only has South Dakota prohibited all intoxicants within its borders, but a bill to prevent the sale of tobacco to minors under the age of sixteen, has been introduced into the Senate.

THERE are many who in defense of beer, point to Germany as proof of its harmlessness; but that country's greatest general, Von Moltke, has said: "Beer is a far more dangerous enemy to Germany than all the armies of France."

THE report of the Excise Board of New York City, just made, shows that there has been no increase in the number of drinking-places in that city for several years, but, instead, that there are seventy-eight less liquor saloons than there were last year.

THE twenty-fifth anniversary of the National Temperance Society and Publication House, was celebrated in the Broadway Tabernacle, New York City, with appropriate ceremonies and speeches from a mighty host of friends, on the thirteenth of May, 1890.

THE New York State Legislature has passed a resolution making it possible for the question of a prohibition amendment to the constitution to be submitted directly to the people. This will be provided for in a special election to be held on the second Tuesday in April, 1891.

LIQUOR can no longer be sold by the quart or glass over bars, in the State of Massachusetts. Although liquor-selling is still allowed, it must, according to law, be sold in connection with eating. Crackers will now probably retail at the price of a glass of liquor, and the liquor will be thrown in.

THE workings of the prohibitory law in Iowa, are interesting in the highest degree to all lovers of temperance and good morals. The State contains somewhere about two millions of people, and has less than seven hundred convicts in her prisons. Her position, at present, is a novel and anomalous one, as she has difficulty in obtaining sufficient prison labor to complete her contracts.

POPULAR SCIENCE.

WITHOUT doubt the most costly book in the world is a Hebrew Bible now in the Vatican library. An offer of, literally, its own weight in gold, amounting to \$102,000, was once made for it, but was refused.

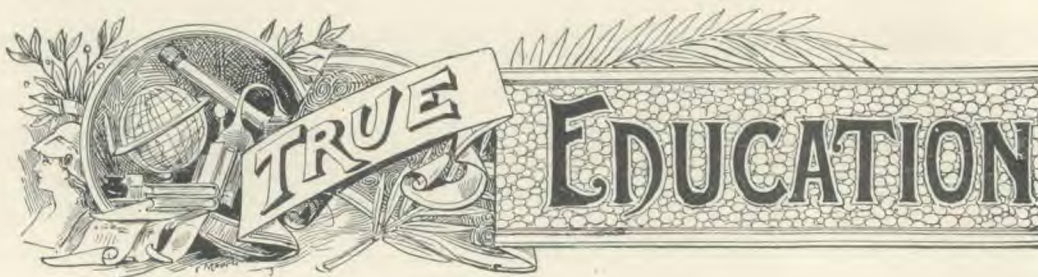
A SCIENTIFIC contemporary gives the following way to tell how fast one is traveling in a railway car: "Every time the car passes over a rail-joint there is a distinct click; count the number of these clicks in twenty seconds, and you have the number of miles the train is going per hour, as the length of the rail is uniform."

A CERTAIN specimen of the species of acacia, whose home is in Australia, is called the angry tree. When its branches are handled, the leaves are agitated, and move uneasily, and if removed from one place to another, it behaves as if highly indignant, its leaves rustling, and standing out like the quills of a porcupine. It also gives out a remarkably pungent and sickening odor, and it is some time before it settles down into its natural calm. At sunset, each day, its leaves, and even the tender shoots, coil up tightly together.

PROF. O. C. MARSH has recently discovered a new reptile of gigantic size. Its head was eight feet in length, furnished with horns; its body, forty feet in length.

THE average reader is scarcely aware of the changes in the map of Africa made necessary by recent explorations. The great globe of the Paris Exhibition was twice altered during its construction, to accommodate itself to these changes, and it is said that two years ago, some Belgian map-makers were five times compelled to take from the press a large map of the Congo State, for additions and corrections.

STONES similar to the famous traveling stones of Australia, have recently been found in Nevada. They range from the size of a pea up to six or seven inches in diameter, and when placed within a few feet of each other, upon a flat surface, they will at once begin traveling towards a common center, where they will huddle together. They are always to be found in heaps at the bottom of natural basins in that section. Scientists say that their attraction is a magnetic one, the material of which they are composed being a kind of lodestone.



LITERATURE FOR YOUNG CHILDREN.

IF a child inherits a natural love for reading, unless carefully controlled he will take into his mind such avalanches of thought that he becomes a mental dyspeptic before he is a dozen years old. Have you not noticed that a child sent to school at five years of age has a very retentive memory, that he could "learn by heart" almost anything, with very little effort? After he has been to school three or four years, his power of memorizing greatly diminishes, and at twelve years, in most cases, his memory is below the average. The mind has been overcrowded with illy digested facts and ideas, and the mental powers are surfeited.

A child should not be taught to read before he is eight years old. Until then he ought to be studying nature instead of poring over books. Direct him to find "books in running brooks," instead of in folios and quartos. If you will teach a child to observe for

himself, you will have small occasion for books with which to occupy his inquiring mind. Of course, object-teaching takes more time and thought on the part of the mother, and many mothers teach their children to read so that they will be less in the way around the house.

After a child has learned to read, select a few good books for intimate acquaintance, and but few. Better let them understand thoroughly the contents of one volume than to have a smattering of many. "Pilgrim's Progress" is easy reading and very interesting, besides being one of the best examples of pure Anglo-Saxon literature. The Bible, too, must be given its place in a child's reading. Such books are much to be preferred to the silly, sentimental trash published for children, and which is as bad for them as beer is for grown persons.

J. H. K.

SOME RESULTS OF THE SLÖJD SYSTEM.

BY S. ISADORE MINER.

BEYOND the promotion of symmetrical physical development by means of an exercise that engages all parts of the body, there are advantages arising from the introduction of the Slöjd system which have done much toward giving it the pre-eminence it now enjoys over the manual work hitherto employed for that purpose. Chief among these is the admirable education it affords the observational faculty, stimulating it when dormant, and supplementing it when deficient.

Nothing better excites the observation of a child than to be required to make an exact copy of a given model. And when the model presents grace of outline, nicety of finish, and utility of design, as is required by Slöjd, he acquires at the same time a correct eye, a dextrous hand, a taste for the beautiful and the true, and a definiteness of purpose that cannot fail to win him success in maturer years, no matter what his avocation or profession may be.

It is astonishing how much interest this system will

awaken in real "work," and the boy whose position may forever secure him from handicraft, is as eager at Slöjd as his poorer fellow; and this interest also gives him a respect for the mechanical arts and their followers, which clings to him in after years, setting totally at variance the arrogance that too often arises from a sense of social prestige. The dull boy, too, usually dull only at books, brightens up when tools are placed in his hands; his "foot is on his native heath," so to speak, and, all unconsciously, he actually "crawls out of himself," in his determination to show his quicker comrades that there are some things in which he can not only equal them, but excel. The best thing that could happen for him, happens: he forgets that he is the dull boy, and therefore is dull no longer, but steps around at his bench with a sort of pride born of a new sense of capability, that will be the making of him yet.

Slöjd also solves the problem of how to interest parents in the schools. The child brings home his

completed work, a tangible result of his training. The parent examines it, becomes interested in the system because he can see what is being accomplished, and thus becomes infused with interest in the school employing it. The mind never trained to deal with technicalities the child is now poring over, and for that reason unable to recognize the progress made, rather doubting, on the whole, if he is learning much of any use, is quick to see that the skimmer brought home this week is a better job than the ladle of the week before, and is thus brought to have faith in a comparative advancement in other respects, and to extend that faith to the means which bring it about.

Unlike many other projects for manual training and

exercise, Slöjd is perfectly adapted for co-educative use. It has no phase in which either sex may not engage with equal propriety and profit. Indeed, it is authoritatively stated, despite the popular opinion that woman is so physically constituted as not to be able to manage tools, that in grace of handling, quickness and nicety of touch, beauty and accuracy of outline, the gentler sex arrives at perfection after far less practice than is required of their brothers. The deaf and dumb, too, take most kindly to Slöjd, welcoming it as a branch of school work in which they enjoy an equal footing with their more fortunate competitors, and evincing an honest delight in eclipsing them in its pursuit, as they invariably do.

HE SAW THE POINT—DO YOU ?

A BOY returned from school one day with a report that his scholarship had fallen below the usual average.

"Well," said his father, "you've fallen behind this month, have you?"

"Yes, sir."

"How did that happen?"

"Do n't know, sir."

The father knew, if the son did not. He had observed a number of cheap novels scattered about the house, but had not thought it worth while to say anything until a fitting opportunity should offer itself. A basket of apples stood upon the floor, and he said: "Empty out those apples, and take the basket and bring it to me half full of chips."

Suspecting nothing, the son obeyed.

"And now," he continued, "put those apple back in the basket."

When half the apples were replaced, the son said: "Father, they roll off. I can't put in any more."

"Put them in, I tell you."

"But, father, I can't put them in."

"Put them in? No, of course you can't put them in. Do you expect to fill a basket half full of chips, and then fill it with apples? You said you did not know why you fell behind at school; I will tell you. Your mind is like that basket. It will not hold more than so much; and here you have been the past month filling it up with CHIP DIRT—cheap novels."

The boy turned on his heel, whistled, and said, "Whew! I see the point."—*Sel.*

WE recognize no limit to man's improvement, if he once determines to steadily elevate himself, and uses all the means at his command to reach this end.

Teacher (natural history class).—"You will remember that, will you, Tommy—that wasps lie in a torpid state all the winter?"

Tommy.—"Yes'm; but don't they make up for it in the summer, though!"

THOSE who have read of everything are thought to understand everything, too; but it is not always so. Reading furnishes the mind only with the materials of knowledge; it is thinking that makes what we read ours. We are of the ruminating kind, and it is not enough to cram ourselves with a great load of collections. Unless we chew them over again, they will not give us strength and nourishment.—*Locke.*

APPRECIATION.—Love of appreciation seems to be instinctive in the whole animal creation. Whoever does good work is encouraged and strengthened by merited praise. Children, and grown people too, as a rule, are very susceptible to the influence of encouraging words. A little fellow of five years of age was doing something which his father disapproved. "My son, you must not do that," said his father. It happened to be something which the child wanted to do, and for an instant he hesitated, as if questioning what would be the consequences if he persisted. Finally his better self triumphed, and he replied, "All right, papa; I won't do it any more." Perhaps most of us would think that was all there was to be said about it, and so the father thought; but the little fellow evidently had different ideas, for in a moment he spoke out: "Papa, why didn't you tell me 'That's a good boy?'" It makes it easier to mind next time."

Social PURITY.

THE PIECE THAT WAS LOST

It was a midsummer morning. The grass was waiting for the scythe; but after breakfast Silas Rogers took down the old Bible that had been his mother's daily companion for eighty years, and they sat reverently down to worship. The reading was that tender lesson of the wandering sheep, and the lost piece of silver, and ended with the heavenly rejoicing "over one sinner that repenteth;" and then after an earnest though homely prayer, they were ready for work. Abner, the hired man, and Reuben, the boy, as they started out of the house, almost stumbled over a woman sitting in the doorway, absorbed in thought. Silas looked at her, but did not stay to question her. And when they were gone, she rose abruptly, and said, "Will you give me some breakfast?"

Mrs. Rogers looked at her. She was a tall and not uncomely woman of about thirty, but with something undefinably evil about her face. The hard mouth, the bold, defiant eyes repelled her, yet it seemed as if at any instant they might break into scornful tears.

"Who are you?" asked the good wife coming nearer, with a pan of bread in her hand. Again the face darkened and lightened, grew hard and yielding, with the sudden declaration: "*I am the piece that was lost!*"

Martha Rogers had not a particle of poetry in her nature, but she had the most profound reverence for the Scripture; therefore the words both puzzled and shocked her. But she was not the woman to refuse bread to the hungry; so she placed food upon the table, and motioned the woman to a chair, saying, "Set up, and eat."

All the time that the woman was eating,—and she did not hasten,—her eyes followed the mistress and Hetty, the bright young daughter, until Martha Rogers grew nervous, and sent Hetty to "red up the chambers."

"Will you give me work to do?" she demanded rather than asked.

"Who are you?" asked Mrs. Rogers again, simply to gain time.

"I thought you knew. I am Moll Pritchett; they

have turned me out of my house,—burned it over my head;" and her eyes grew lurid.

"What can you do?" asked Mrs. Rogers.

"Anything that a woman can do, or a man. I can work in the field with the best of them; I have done it many a time; but I should like to do what—to be like other women."

"Are you a good woman?"

The question came straight and strong, without any faltering. She had heard of this Moll Pritchett, a woman who lived alone in an old tumble-down hut below the saw-mill, and won a meager living by weaving rag carpets, picking berries for sale, and, it was suspected, in less reputable ways; but Martha Rogers took no stock in idle rumors. If she had not divine compassion, she had something very like divine justice, which is altogether a sweeter thing in its remembering of our frame "than the tender mercies of the wicked."

The woman looked at her curiously—at first with a mocking smile, then with a sullen, and at last with a defiant expression.

"Is it likely?" she said fiercely. "A good woman! How should I be a good woman? I tell you, I'm the piece that was lost, and nobody ever looked for me. If I was a good woman, do you suppose I should be where I be—only twenty-eight years old, well and hearty, and every door in the world shet in my face? I tell you, the man who wrote that story *didn't know women*; they do n't hunt for the piece that's lost, they just let it go. There's enough of 'em that don't get lost."

Poor Martha Rogers was sorely perplexed, all the more that her way had lain so smooth and plain before her that she might have walked in it blindfolded. If this was a lost piece of silver, it was not she who lost it; but what if it were the Master's, precious to his heart, and a careless hand dropped it, and left it to lie in the dust? And what if he bade her to seek it, and find it for him? Should she dare refuse? On this very day, when she needed so surely the help which she had so looked for in vain, had not this

woman been sent to her very door, and was it not a plain leading of Providence? It is a blessed thing for us that we are usually driven to act first and theorize afterward, even though the after-thought sometimes brings repentance. The bread was ready for the oven, and the wood-box empty.

"You may fetch in some wood," said Martha Rogers, and the woman promptly obeyed, filling the box with one load of her sinewy arms, and then stood humbly waiting. Hetty came into the kitchen, and began to clear the table; but her mother said; "Go upstairs and fetch a big apron and one of our sweeping-caps; and then you may get at your sewing, and see if you can finish up your dress."

Away went Hetty, her light heart bounding with the unexpected release; and the mother turned again to the woman, furnished her with a coarse towel, and sent her to the wash-house for a thorough purification. Half an hour afterwards, with her hair hidden in the muslin cap, her whole figure enveloped in the clean calico apron, a comely woman was silently engaged in household tasks, doing her work with such rapidity and skill that the critical housewife drew a sigh of relief.

"There's a handful of towels and coarse clothes left from the ironing; you might put the irons on, Mary, and smooth 'em out."

The woman turned a startled face upon her, and then went quickly for the clothes; but something—was it a tear?—rolled down the swarthy cheeks, mingling with the bright drops she sprinkled over them. When had she ever heard anything but Moll? Not since away among New Hampshire hills a pale woman had laid her hands upon the tangled curls of her little daughter, and prayed that some one would watch over these wayward feet, lest they should go astray. It made Moll shudder to think of it. What

did she know about joy in heaven over one sinner that repenteth?

* * * * *

Silas Rogers listened to the day's story, as he sat mending a bit of harness with clumsy fingers, and among his other thoughts, he grasped the idea that his wife had secured a valuable and much-needed helper.

"It seems a resk to run," said Martha, anxiously, and I don't know but it's presumptuous; there's Hetty, and there's Reuben—"

"And there's the Lord," said Silas, stopping to open his knife.

"Yes," said Martha, with a little start, "and I can't quite get red of what she said about 'the piece that was lost,' though to be sure the woman who lost it ought to hunt it."

"She never does; folks are always losing things for somebody else to find; 'taint many of them can say, 'Those that Thou hast given me have I kept,' right straight along."

"But if you lose your own piece looking after other folks's—"

"Well, there's resks, as you say, but I'd rather take a resk for the Lord than agin him."

Martha Rogers took the risk for the Lord, and he abundantly justified and rewarded her faith. For the piece that was lost becomes *my piece* to the heart that finds it again in the Master's hand; and locking the story of the wanderer in her own breast, it was only to the angels that she said, "Rejoice with me."

And when, years afterward, the woman herself said before the committee of the church, "I am a woman over whom there is great joy in heaven," there was not wanting those who thought she was presumptuously claiming to be a saint.—*Emily Huntington Miller.*

SAD STATISTICS.—Probably the majority of those who read the following paragraph will be astonished at the facts presented, which are indeed a sad commentary upon our boasted Christian civilization: "Statistics gathered from a reliable source give the proportion of illegitimate births in the most enlightened countries in the Old World, as follows: Holland, 4.0; Switzerland, 5.5; Prussia, 10.0; England and Wales, 6.5; Sweden and Norway, 9.6; Scotland, 10.1; Denmark, 11.0; German States, 14.8; Wurtemberg, 16.4; Italy, 5.1; Spain, 5.5; France, 7.2; Belgium, 7.2; Austria, 11.1; Ireland, 3." Surely there is need for earnest work in the direction of social purity reform.

TRAINING.—The song with which you sing the little child to sleep will echo through all its life, and ring back from the arches of heaven. I think that often the first seven years of a child's life decides whether it shall be irascible, waspish, rude, false, hypocritical, or gentle, truthful, frank, obedient, honest, and Christian. The present generation of men will pass off very much as they are now. Although the gospel is offered them, the general rule is that drunkards die drunkards, thieves die thieves, libertines die libertines. Therefore to the youth we turn. Before they sow wild oats, get them to sow wheat and barley. You will fill the measure with good corn, and there will be no room for husks.—*Talmage.*

GOOD HEALTH

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MEDICAL FRAUDS.—VI.

A New Humbug—Electropoise (Continued).

WE promised, last month, to give our readers some facts in regard to the workings of Dr. Sanche's wonderful "electropoise." Here are a few of the modest claims of this self-styled discoverer and public benefactor:—

"Fevers can thus be cured in four hours, and in many cases in one hour. The process of disease may thus be arrested in from five to twenty minutes, and, permanently, in from one to four hours." "The most malignant congestions, either of the comatose, spasmodic, or choleric sort, and any form of pernicious or yellow fever, including the most deadly 'vomito' and 'Chagres fever,' and all deadly affections of the warm sections of the temperate and of the torrid zones, are thus quickly checked, aborted, and cured. By quick application of 'Victory,' all these otherwise deadly affections are rendered perfectly harmless, and but a matter of short and slight inconvenience. Thus man is as safe from them as though these former terrors of life had never existed. The same with vigilant use of 'Victory' in plague and all contagious diseases, in any country. Diseases of long incubation, like syphilis, etc., are far advanced when first noticed, and therefore require longer treatment; but they are alike rendered powerless to destroy life, and are soon neutralized, leaving the system as free from disease and more vigorous than before, under the judicious use of 'Victory.' [See the author's other publications.] The writer makes the above statement without fear of exaggeration."

Certainly the above is evidence that the "Doctor" has no "fear of exaggeration!" After such stupendous claims, no further exaggeration is possible, and we doubt if there are any considerations, moral or otherwise, which would deter a "Doctor" of the class we are considering, from making any statement

likely to produce an interest in his wares, through "fear of exaggeration." The ingenuity of the experienced charlatan is well shown in the caution given against "ill effects from overuse." We quote as follows from a small pamphlet entitled, "Directions for Use of the Pocket Electropoise:"—

"As the effects of the electropoise depends on the circumstances connected with the case in which it is applied, its continued use is liable at some time or other to amount to overuse, notwithstanding the greatest precaution. It causes the body to attract oxygen from the atmosphere, and of course this oxygen produces its peculiar effects according to quantity absorbed. When oxygen is inhaled, it produces a rise of temperature, which runs rapidly to difficult breathing, and many other symptoms produced by excessive use of the electropoise. But, because its inhalation causes irritation of the lungs that renders it soon unendurable, it never produces, thus applied, the thoroughness of effects as when instilled by the electropoise. This is because in electrolibration, it enters the system through the skin and membranes, without sensation, until reaching a general saturation, such as inhalation could never beget. Hence, when thus overcharged, we may experience many disagreeable effects, and even extremely painful sensations, which imitate any disease."

Here the "Doctor" at once expounds the theory of his electropoise, and explains the philosophy of its ill effects. It seems that under the influence of the electropoise the oxygen is absorbed by the body with such facility that there is great danger of over-saturation. This explanation of threatened danger from overuse is a very excellent means of heightening the effect of the electropoise when applied to patients with vivid imaginations. The writer recalls an experience of fifteen years ago, when engaged as an assistant to the

late Dr. Geo. M. Beard, in conducting a series of experiments for the purpose of determining the effect of imagination in disease, at the Demilt Dispensary, in New York City. The Doctor had compounded a medicine possessed of an exceedingly bad taste but no medicinal properties. The patient was directed to place upon the tongue one drop of medicine each day, exactly as the clock was striking twelve, at noon, and carefully cautioned by the Doctor that if more than one drop was taken he "could not be responsible for the consequences!"

Still greater ingenuity, if possible, is displayed in the recommendation of a means for antidoting the effects of an excessive dose of electropoise, as follows: "When such occur, endure all that is endurable for what good it brings. But if anything unendurable arises therefrom, remember the natural antidote for an excess of oxygen in the system is hydrogen, which, in such emergencies, is found in the most acceptable form in alcoholic liquors. Therefore, when commanded by such a necessity, take a toddy, often repeated, until the unendurable symptoms vanish. Remember, also, that the hydrogen of alcoholics is serviceable no further, and that wines and other fermented liquors are not as good here as whisky and brandy."

The use of stimulants is an old dodge with the practiced charlatan. He well knows that the effect of the stimulant is to make the patient feel better, although he may actually be worse; and the "Doctor," by combining the use of stimulants with his electropoise, finds himself master of the situation. A patient suffering from any malady applies the electropoise according to directions. If after the application of the instrument the patient's symptoms change for the better, through the efforts of the natural curative forces of the body, the electropoise gets the credit. If his symptoms grow worse, it is only because he had an overdose of this powerful medicine, and then he must resort to the use of stimulants, which will certainly make him feel better, although his real condition may be worse. Thus the electropoise triumphs in either case.

It would seem that an instrument for which such stupendous claims are made should possess at least some degree of potency; but upon careful investigation, the electropoise, was found to be wholly inert. Although warranted to cure any fever in from one to four hours, and to show marked effects within five to twenty minutes, when applied it was found to have no influence whatever. In one case in which it was applied, and exactly according to directions, the polarizer being placed in a pail of cold water, and the plat-

inum plate at the other end of the cord applied to the ankle, the temperature continued to rise steadily for eight hours, at the end of which time the instrument was removed, it being evident that it was incapable of producing any therapeutic effect whatever. The temperature actually rose two degrees while the instrument was in use. The experiment was repeated in numerous cases, with the same result.

The instrument was then subjected to careful examination, to ascertain whether it was capable of producing an electrical current, as claimed by the "Doctor," even though it be a very feeble one. The instrument employed in testing its electrical properties was so delicate that when a piece of zinc and copper was connected with it and brought in contact with the tongue, the indicator of the instrument moved quickly through thirty or forty degrees of the scale; but when the electropoise was applied, there was not the slightest movement of the indicator, showing that if any electrical current whatever is produced, it is infinitely less than that which is produced by a copper penny and a piece of zinc of the same size, moistened by the tongue. Certainly such a current is not likely to do any one harm, or produce so heavy a charge of the body as to require the use of stimulants to counteract its effects!

The next step in the investigation of the electropoise was to dissect it. The nickle plate cylinder was accordingly taken to our machine shop, and sawed in two lengthwise, when it was found to consist simply of a hollow cylinder of brass, filled with sulphur and charcoal, fused together, and run into the cavity of the cylinder. There is not in the construction of the instrument even a pretense of an arrangement capable of producing any sort of an electrical current. It is a fraud pure and simple. The so-called discoverer of this wonderful instrument evidently did not think it worth while to make a real battery, capable of producing a current, but so feeble as to be of no consequence, but makes, instead, a genuine sham. So long as it is intended to be a fraud, it might as well be a thorough-going fraud, as to have any pretense of virtue about it. Certainly there is this to be said in favor of the electropoise charlatan, that he is a whole-souled individual, and does not do things by halves. We must respect his whole-souledness, but the colossal mendacity required for the perpetration of such frauds upon the public, is something appalling. We cannot forbear to add, also, that it is a matter of surprise and regret that some of the leading business men and capitalists of Detroit seem to be connected with the enterprise, and lending it their influence.

INJURIES FROM PATENT MEDICINES.

CASES have recently occurred in Georgia which ought to cause some patent-medicine manufacturers to tremble in their shoes. It seems a person was injured by taking a patent medicine, although following the directions given upon the label of the bottle. The Court decided that the manufacturer of the patent medicine is responsible for the injury done, and can be held responsible for any such injury suffered by a person taking such medicine. Here are the views expressed by the Supreme Court of Georgia upon this question:—

"These proprietary or patent medicines are secret, or intended by the proprietors to be secret, as to their contents. They expect to derive a profit from such secrecy. They are, therefore, liable for all injuries sustained by any one who takes their medicine in such quantities as may be prescribed by them. There is no way for a person who uses the medicine to ascertain what its contents are ordinarily, and in this case the contents were only ascertained after an analysis

made by a chemist, which would be very inconvenient and expensive to the public. Nor would it be the duty of a person using the medicine to ascertain what poisonous drugs it may contain. He has a right to rely upon the statement of the proprietor, printed and published to the world; and if thus relying he takes the medicine, and is injured on account of some drug of which he is unaware, the proprietor is not free from fault, and is liable for the injury thereby sustained."

Many patent medicines contain arsenic, and other poisonous drugs, which though they may not produce immediately dangerous symptoms in ordinary persons, may produce such symptoms in persons who are particularly susceptible to poisons of this character. Doubtless thousands of persons have been made ill by patent medicines, without being aware of the cause, or if the real cause was discovered, were not aware of the fact that the manufacturer of the patent medicine could be made liable for the damages sustained. It is well to have facts of this sort made public.

AN INTERESTING BIT OF HISTORY.

THE *American Agriculturist* recently published the following amusing account of the introduction of hogs into Scotland:—

"Pigs were little known in Scotland until the eighteenth century, and amusing stories are told of the wonder and fright of the people at the appearance of the fat domestic animal now so common on every farm. About 1720, a gentleman living in Dumfriesshire, who was called the 'Gudeman o' the Brow,' received a present of a fine young porker from some distant place, which seems to have been the first ever seen in that part of the country. This little pig was of a roving disposition, and one day wandered across the Lochar into the adjoining parish. Here a peasant woman, who was herding her cattle near the seashore, was terribly alarmed at sight of the strange creature, which, she thought, came grunting up out of the water, and away she fled, screaming with terror, into the village of Blackshaw. Naturally a crowd soon gathered around her, to whom she declared that a 'de'il' (devil) came out of the sea, with two horns on his head, and chased her, roaring and gaping all the way at her heels, and she was sure he was not far off! At this the rustics were sadly dismayed, but an old schoolmaster said bravely that he would 'conjure the de'il,' and proceeded at once to bring out a Bible and an antique sword; but when suddenly the little swine

started up, grunting, at his back, the courageous pedagogue was so frightened that his hair fairly stood on end, and they bore him half dead from the field. The whole crowd then took to their heels, hiding themselves in barns, and even climbing upon the house-tops; and the panic continued until one who had seen the foreign gift called out, from his perch on a roof, that it was only 'the Gudeman o' the Brow's grumphy.'

"Next day the pig was conveyed across the Lochar, and his head turned in the direction of the 'Brow;' but on the way, he trotted up, in the dusk, to two men gathering thistles, who, as startled as the woman, mounted their horses, and would have ridden home; but the strange animal getting in their road, they were driven into the Lochar moss, where one of the horses was drowned, and they remained all night, not daring to speak above a whisper, for fear the monster should discover and devour them. When finally morning broke, and they succeeded in making their way, by another road, home to their anxious families, they had a remarkable tale to tell of having seen 'a creature about the size of a dog, with horns on its head, and cloven feet, roaring out like a lion,' and if they had not galloped away, it would have torn them in pieces; and they must have been somewhat crest-fallen when one of the wives cried: 'Hoot, mon! it

has been the Gudeman of the Brow's grumphy! It frightened them a' at the Blackshaw yesterday, and poor Meggie Anderson maist lost her wits, and its aye out o' a'e fit into another sin syne.' Meanwhile Master Grumphy spent his night in the corn, and the next day proceeded on his journey homeward. But he a third time sent a canny Scotchman nearly 'daft' by snorting about the feet of a colt he encountered, on which was riding Gabriel Gunson, with a load of white-fish slung in a pair of creels. The young horse, startled out of his equanimity, ran away, throwing his master in the road; and when Gabriel, on picking himself up, spied the pig not far off, he took to the woods, and remained hidden there for twenty-four hours, and until he was completely exhausted, while terror excited his imagination to such an extent that

he afterward described the innocent little porker as 'big as a calf, having long horns, eyes like trenchers, and a back like a hedgehog.' Poor Gabriel! It was a sad encounter for him, for he lost his fish, his colt was ruined, and he himself fell into a consumption, and died in a little more than a year. Truly, Mr. Grumphy had a good deal to answer for.

"It was shortly after this that a vessel came into port, a little below Dumfries, with several swine on board, and one, getting loose, the country people took it for a badger, and turned out with clubs and swords to capture it. One man, named Robs Geordy, was courageous enough to run the strange beast through with a pitchfork, and for this deed of valor, he was known as 'stout-hearted Geordy' all the rest of his life."

VEGETARIANISM IN ENGLAND.

WE are glad to see that vegetarian principles are gaining ground in beef-eating England, as evidenced by the following from the *London Christian*:—

"Vegetarianism, in the opinion of its thorough-going devotees, would do wonderful things for the improvement of society, if it were but largely adopted as a system of diet. It would relieve the congestion of our cities, by the wide extension of fruit culture and the employment of an army of cultivators. It would conserve the public health by its simple and natural regimen, and promote a corresponding purity of life. It would banish luxurious and expensive gormandizing, and set free much money for good objects.

This and a great deal more of the same kind was forcibly impressed on a breakfast company at the Vegetarian Hotel in the Strand, one morning last week, by the President of the Vegetarian Society, Archdeacon Farrar sat in the chief seat, and was surrounded by members of Convocation, and other men of light and leading. In an eloquent speech he proved conclusively that the vegetarian cult has high and worthy aims, and ought to be supported; but he is

not yet convinced, evidently, that a farinaceous and fruit diet would necessarily be the best thing for him.

"The Dean of Chichester confessed that the excellent breakfast and the very able homily of Mr. Hills, had almost persuaded him to join the ranks of the despised abstainers from flesh, fish, and fowl. He hit a very stubborn nail on the head when he said that the chief difficulty lay with the household cook.

"Our reporter sat at table next to a young man who had been a strict vegetarian for three years, much to his advantage every way, especially in the matter of toothache, to which in his flesh-eating days he had been a martyr. But then he had married a wife who was a vegetarian on the highest ground of all—that it was sinful to take away animal life even for food. If the better half of creation should ever become wholly and entirely of this worthy wife's persuasion, the rest of the process will be simple enough. We are, of course, in favor of all the avowed objects of the Vegetarian Society enumerated above, and therefore we wish it a fair field and all the favor it can get."

MYOPIA.—Prof. Foster, of Breslau, an eminent eye-specialist, has recently called attention to the fact that myopia, or short-sightedness, is often due to wearing tight collars, which interfere with the circulation of the blood through the head.

SALT VERSUS GERMS.—Dr. Foster, professor of hygiene in the university of Amsterdam, has been making experiments for the purpose of determining the

effect of salt in various diseases producing germs. He finds that germs of cholera are usually killed by salt, but those of typhoid fever resist the attack for weeks and months. The well-known custom of salting the meat of diseased animals, which prevails among butchers, is thus shown to be an exceedingly dangerous one, as the salt is not a sufficiently powerful germicide to render the affected meat a safe article of diet.

THE State Legislature of New York is considering the propriety of passing a compulsory vaccination law. This is a matter which ought not to be entered upon too hastily by legislatures. A law of this sort may be easily abused.

TYPHOID FEVER AND ICE.—As the season of the year is approaching in which many persons make use of ice for the purpose of cooling drinking-water, attention should be frequently called to the fact that ice often contains germs of most dangerous character.

IDENTITY OF CROUP AND DIPHTHERIA.—According to a report made by the Ohio State Board of Health, an outbreak of diphtheria which recently occurred in Mansfield, Ohio, has been traced to a case of membranous croup. This justifies the position taken some time ago by the State Board of Health of Michigan, that the two diseases named are identical.

TAPE-WORMS FROM PORK.—A German medical journal reports a case in which a person who had previously been a farm laborer, after having been confined in prison for some months, was relieved of a mass of tape-worms, twenty-five in number, all of which were of the variety communicated by pork. The man confessed that for some time before being incarcerated, he had been in the habit of eating a pound of raw pork daily.

JANITORS of churches and other assembly-rooms should always open doors and windows widely immediately after vacated, to secure thorough ventilation of a room. This may not be necessary in case of rooms which are efficiently ventilated, but for the ordinary assembly-room is a *desideratum*, since it secures the removal of the greater portion of the solid particles from which disease is communicated, and which, if not removed speedily, would settle upon the floors and seats, thus increasing the danger of contagion.

CARE OF CHILDREN'S TEETH.—Dr. Francis Fox, an eminent English physician, has called attention to the importance of attending to the teeth of children at an early age. Experience has shown that decay of the first teeth is injurious to the permanent set. He also calls attention to the deteriorating influence of tartar when left to accumulate about the teeth of children, as is frequently the case. Another point insisted upon is that irregularity in the teeth of children should be corrected, as they produce decay by irregular pressure, and by retention of particles of food.

A CONTEMPORARY defines pessimism as a sort of "liver complaint."

THE *Pacific Medical Journal* declares that the climate of California is no better for consumptives than that of many other States, and objects very seriously to having that State peopled with consumptives bringing tubercular bacilli. The *Journal* would like to establish quarantine in California against all persons not strictly healthy, preferring to raise heroes instead of microbes.

DEATH FROM DISEASED MEAT.—The *Pall Mall Gazette* gives the following account of death resulting from the use of diseased meat in Frankenhäusen:—

"The man who ate over a pound of the meat, died of internal inflammation, and the rest, who had been more moderate, came off with a fit of intoxication and its subsequent horrors, while no less than thirty-six, who had taken beef tea boiled from the same substance, all suffered more or less from the same cause."

As a mode of exercise which brings into vigorous action the larger share of the principal muscles of the body, together with the heart, lungs, and most of the abdominal viscera, there is nothing better than running; but it must be practised systematically, the speed being gradually increased from a rapid walk to a vigorous run. It is, however, a form of exercise which should be practised with discretion, as it is liable to induce over-development of the heart, a condition by no means insignificant.

THE State Board of Health of Oregon evidently proposes to take hold of the matter of stamping out consumption in cows in a thorough-going manner. A wealthy banker of Portland, Oregon, owned a herd of one hundred and fifty-eight Jerseys, which cost him \$35,000, one third of the entire sum having been paid for twenty-seven of the animals, bought in the East. A few months ago tuberculosis was discovered in several of the cows, which led to the condemning of the animals by the State Board of Health. He was forbidden to sell either the milk or the butter made from the milk of any of the diseased animals, or others that had been in contact with them, and thirty-four of the animals were killed, others that had been exposed being placed in quarantine. While strenuous efforts are being adopted in various States for the prevention of this all-but-incurable malady among the lower animals, what is being done to prevent the propagation of the disease among human beings?

A NEW departure in prison reform has been inaugurated at Elmira, N. Y., by the addition of a gymnasium and baths to the reformatory of that place.

A FORTY-DAY FAST.—Signor Succi, the Italian faster, has just completed another fast of forty days, in London. The faster was carefully watched during the entire time, under the supervision of medical men; and the London *Medical Journal* credits him with having performed the feat in accordance with his claim. The New York *Medical Record* uses the facts demonstrated by Signor Succi's experiment, to impress the lesson that people eat too much and drink too little. According to the *Record*, more diseases come from excessive and intemperate eating than from the use of alcohol, since wrong eating is the basis of many diseases, among which are gout, rheumatism, diabetes, obesity, and a great number of stomach and intestinal troubles.

DEATHS UNDER FIVE YEARS.—The following facts, which we quote on good authority, certainly show the necessity for sanitary missionary work as a life saving means in the principal civilized nations of the globe: "In Norway the proportion of children dying under five years of age is 204.5 per 1,000 born; while in England it is 330 per 1,000, and in Italy 567 per 1,000. In fifty-one so-called "healthy districts" of England and Wales, the mortality under five is 175 per 1,000 born, while in the Liverpool district, representing the most unfavorable sanitary conditions, it is 460 per 1,000. In the State of Vermont, which contains no large cities, the number of deaths under five, for the year 1883, was 23.8 per cent of the whole number of deaths; in the State of Massachusetts, in which there are several large cities, for the twelve years ending in 1884, it was 34.74 per cent; and in the City of New York alone, for the seven years ending in 1873, it was exactly 50 per cent of the entire mortality.

INTOXICATION FROM THE USE OF TEA.—A scientific physician of our acquaintance recently related to us the circumstances of an epidemic of tea-drunkenness, which came to his attention a number of years ago. At that time he had medical charge of the employees of a large manufacturing establishment in which forty or fifty young women were employed. It was observed by the managers that the young women were growing thin and haggard, and after a while they began to drop out from their work, sometimes several at a time, and were likely at any time to be seized with strange nervous symptoms, usually hysterical in character, sometimes amounting to insanity. An investigation of the

matter showed that these young women had acquired the habit of tea-chewing while engaged in their work. The practice had become almost universal among them, and the evil effects were as universal as the practice. A number of cases of acute mania occurred among the young women before the practice was checked, which was only accomplished by stationing detectives at the door of the factory, and searching each person who entered. Quantities of the intoxicating drug were frequently thus found concealed. Another physician recently mentioned a case of genuine delirium tremens resulting from the use of tea, which came under his observation nearly fifty years ago. The patient gave all the characteristic symptoms, seeing all sorts of animal forms, and other shapes which are described by the victim of *mania a potu*.

THE *New York Times* recently published an extract from a paper by Mr. Francis Blake, of Boston, who described an outbreak of disease in his dairy of ten cows. A veterinarian, calling to prescribe for one of the animals, found it tuberculous, and upon examination found six of the ten animals to be suffering from tubercular consumption.

"I had supposed," says Mr. Blake, "that I had as fine and healthy a lot of animals as could be found in the State. None of them, to the layman's eye, had any outward symptoms of the disease; in fact, a skilled veterinary surgeon who had been familiar with the stable for years had not suspected trouble until a few days before. The autopsies disclosed a state of physical rottenness most alarming to me, since the milk from two of the worst-afflicted cows had been used in my household up to the day of inspection."

"He sought to make the stable healthful and free from infection. The wood on which the infected cows had stood was burned, and all the exposed inner surface of the stable was saturated with corrosive sublimate, and then whitewashed three times. Hereafter, his cows are to be inspected frequently. His experience led one of his neighbors to inquire as to the condition of his cows, with the result that the disease was found in three out of seven of them. 'From what I hear,' said Mr. Blake, 'it is hard to find a herd of cattle kept for the sale of milk, in which there are not cases of tuberculosis.'"

From the rapidly accumulating facts respecting the frequency of consumption in cows, and the probability of frequent communication of the disease to human beings from this source, it is evidently wise to adopt a plan of cooking milk before eating it, a practice which prevails in India and some South American States, as well as in other parts of the world.

DOMESTIC MEDICINE



A GERMAN medical journal reports cure of tape-worm by taking the milk and the meat of the cocoanut.

ICED or frozen milk will sometimes be retained on the stomach when everything else is rejected. Give at intervals, a few sips at a time.

MOUTH-BREATHING AND DECAY OF THE TEETH.—Dr. Spicer, an English physician, has called attention to the fact that obstruction of the nasal passages and the consequent mouth-breathing, is a frequent cause of the decay of the teeth.

DANDRUFF.—A physician reports that hydrate of chloral is an excellent application for removal of dandruff. It may be used in proportion of one dram to the pint of water. It is said that the remedy also promotes the growth of the hair.

FOR NOSEBLEED.—Lemon juice and vinegar are excellent means of arresting a capillary hemorrhage, that is, a flow of blood from a large artery which is wounded. Snuffing a little lemon juice or vinegar into the nose is an excellent means of stopping nose-bleed. If necessary, the fluid may be injected with a small syringe.

TO PREVENT INGROWING TOE-NAIL.—A frequent cause of ingrowing toe-nail is wearing too short shoes. Even shoes which are long enough when first purchased, become too short after the upper has been stretched by wearing. This fault may be overcome by taking pains to button or lace the shoes tightly over and in front of the instep.

THE APPLE-CURE FOR GOUT.—Dr. John Hunter was an enthusiastic advocate for the apple-cure for gout. Instead of drinking freely of wine, and consuming quantities of rare roast beef, he enjoined upon his patients who were suffering from gout, the importance of the free use of apples in the place of wine-drinking and roast beef, mutton chop, etc.

FOR A FELON.—Don't waste time with plasters and poultices, dipping in lye and "smartweed tea." If you have a felon, go at once to a good surgeon, and have it lanced deep. The knife should go down to the bone; then healing will be prompt, and much mischief may be averted.

TO PREVENT SCARS AFTER BURNS.—It very often happens that great disfigurement is occasioned by the contraction of the scars produced by deep burns. To a great degree this may be prevented by daily manipulation of the parts with oil. The scar should be well rubbed, stretched, and pulled, and by this treatment it may be kept soft and flexible.

CONSUMPTION FROM MILK.—At the recent meeting of the American Medical Association, Dr. Ernst related a case in which an infant, less than a year old, which had never taken anything other than its natural food, with the exception of milk from one cow, became ill, and died with consumption. The cow from which the milk was obtained seemed to be healthy, but injection of the milk produced consumption in rabbits, showing that it was the source of the affection. The above incident emphasizes anew the importance of cooking milk, as well as all other food of animal origin. Milk should always be boiled before it is used.

FOR A BURN.—If a person has been burned by the clothes catching fire, remove the clothing as soon as possible, taking care to keep the burned surface drenched with tepid water; and be sure not to drag upon the injured skin in such a way as to pull it off, as it is the best possible protection for the tender flesh beneath.

When the clothing has been removed, keep the burned surface covered with cloths wrung out of soda-water, made by dissolving a teaspoonful of soda in a pint of water. This is an effectual method of treating burns, and is far superior to the old dressing of carron-oil, a mixture of linseed-oil and lime-water.

A REMEDY FOR SLEEPLESSNESS.—Wet half a towel, apply it to the back of the neck, pressing it toward the base of the brain, and fasten the dry half of the towel over so as to prevent the too rapid exhalation. The effect is prompt and charming, cooling the brain, and inducing calmer, sweeter sleep than a narcotic. Warm water may be used, though most persons prefer cold. To those suffering from over-excitement of brain, whether the result of brain work or pressing anxiety, this simple remedy is an especial boon.

HOUSE-PLANTS AND MALARIA.—A writer in the *Nineteenth Century* gives an account of the illness, from malarial fever, of a lady residing in St. Petersburg. It was observed that when the lady was confined to her bedroom, she speedily recovered, but on being removed to the sitting-room, relapse invariably followed. On careful investigation, it was discovered that one of the house-plants with which the sitting-room was garnished, had been brought from a distant malarial district. On removing this plant, the patient made rapid recovery.

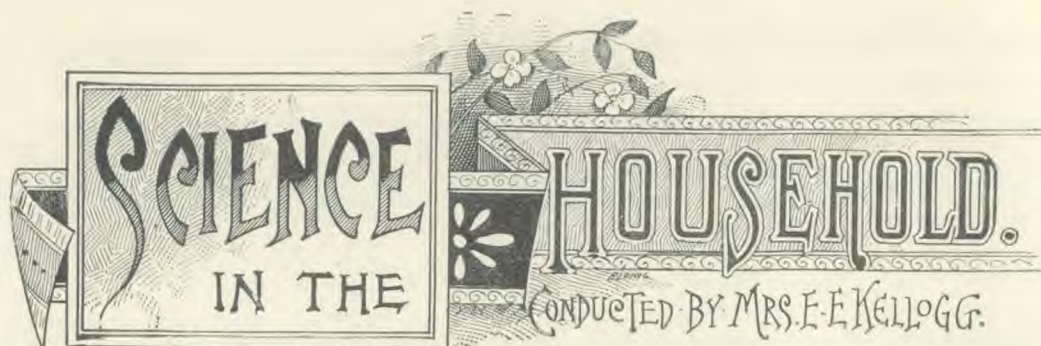
A SIMPLE INHALER.—An inhaler which anybody can construct, and which may be found useful for various affections, is thus described by Dr. Maddox: "Coil a piece of paper into the shape of a cigarette, and fix it with gum. Then insert into one end a small uncompressed piece of absorbent cotton-wool, upon which a drop or two of the desired medicament has been poured; air is now drawn through the tube by the patient, who holds the other end between his lips. This plan is by many patients, especially men, preferred to respirators or steam inhalers."

WATER-DRINKING.—The benefits to be derived from water-drinking is by no means a new discovery. Priessnitz recommended water-drinking as one of the most important of hydro-therapeutic means, more than sixty years ago. All hydropathists have employed water-drinking as a means of expediting the cure of their patients, especially in chronic cases. Rausse, an eminent German hydropathist, mentioned the case of a man who drank daily from ten to twelve quarts of water. But this he thought too much, and advised the use of not more than one to three quarts per diem. Dr. Shew gives an account of a patient in Graefenberg who drank thirty and one-half quarts of water a day, with no other inconvenience than a slight headache. We must not be understood as commending this excessive use of water, as it is possible for so bland a substance as pure water to do harm when wrongly used.

MILK AND SCARLET FEVER.—Dr. Miller, of Brewster, N. Y., calls attention, in a recent medical journal, to an outbreak of scarlet fever, in which twenty-four persons suffered from the disease, as a result of the use of milk contaminated with the malady.

A NEW REMEDY FOR AGUE.—An Austrian physician recently published an account of a new method of treating ague by rubbing the spine. He made the discovery while he was army surgeon on duty at a distant point. The stock of quinine becoming exhausted while many soldiers were suffering from ague, he was at first at a loss to know what could be done for them. But wishing to keep them occupied with some sort of treatment, he ordered that the spine should be rubbed twice a day, a little ointment being used simply for lubrication. He found the treatment singularly successful, and since that time has rarely failed to cure this disease without administering medicine of any kind.

WHAT TO DO FOR RATTLESNAKE BITES.—Dr. S. Weir Mitchell, of Philadelphia, who has made very extensive researches concerning the nature and effects of the rattlesnake virus, describes in a recently published article, the proper method of dealing with rattlesnake bites, as follows: "I am often asked what I would do if bitten while far from help. If the wound be at the tip of a finger, I should like to get rid of the part by some such auto-surgical means as a knife or a possible hot iron affords. Failing these, or while seeking help, it is wise to quarantine the poison by two ligatures drawn tight enough to stop all circulation. The heart weakness is made worse by emotion, and at this time a man may need stimulus to enable him to walk home. As soon as possible some one should thoroughly infiltrate the seat of the bite with permanganate of soda or potash, or some other like agent. By working and kneading the tissues, the venom and the antidote may be made to come into contact, and the former may be so far destroyed. At this time it becomes needful to relax the ligatures to escape gangrene. The relaxation, of course, lets some venom into the blood-round, but in a few moments it is possible again to tighten the ligatures, and again to inject the local antidote. If the dose of venom be large, and the distance from help great, except the knife or cautery little is to be done that is of value. But it is well to bear in mind that in this country a bite in the extremities rarely causes death. I have known of nine dogs having been bitten by as many snakes, and of these dogs but two died. In India there would have been probably nine dead dogs."



HELPS FOR THE INEXPERIENCED. — 6.

VARIOUS methods of cookery are employed in the preparation of food. Boiling is perhaps the most common, and is generally considered to be so simple a process that even the most inexperienced may safely undertake to cook food in this way. But there is a great difference between food softened by the solvent action of boiling water, and food cooked in boiling water so as to retain its shape and preserve its juices and flavors. To properly boil a food, the water during the entire process must be kept at boiling heat. When this temperature is reached, it can not be increased, whether the fluid in which the food is cooked boils fast or slowly. The mechanical action of the water is increased by rapid bubbling, but not the heat, and to boil anything violently does not expedite the cooking process, save that by the mechanical action of the water the food is broken into smaller pieces, which are for this reason more readily softened.

But violent boiling occasions an enormous waste of fuel, and by driving away in the steam many of the more volatile and savory particles of the food, renders it much less palatable, if not altogether tasteless. The rate of evaporation is much less in slow boiling.

Slow boiling is preferable for most foods of large bulk, dried foods, and foods of delicate flavors. Rapid but not violent boiling is serviceable when cooking tender green vegetables, articles made of flour, like macaroni, and also rice, since the rapid bubbling of the water prevents the grain from settling to the bottom of the dish.

But whether the boiling be slow or rapid, it must be continuous. If an insufficient amount of liquid has been used for the complete cooking, it should be replenished with more of boiling temperature, so that the cooking process shall not be interrupted. The fire also should be so carefully attended to that the boiling may not cease.

Many foods are better cooked at a temperature below boiling heat, and for such, *stewing* is preferable to boiling. Stewing should not be confounded with simmering, which is very slow boiling. Stewing is best accomplished by means of a double boiler. The water in the outer vessel should be kept boiling, which will thus keep the contents of the inner cup at a temperature a little below boiling heat. For all grains, this method is superior to boiling.

THE DOMESTIC SERVICE ASSOCIATION.

BY E. L. SHAW.

IGNORE it as we will, housekeeping and homemaking are the twin good fairies of this work-a-day world, going hand in hand to make or mar the comfort of our daily lives. Setting aside the question of economics, few there are, we must believe, who would, of choice alone, go to live in the hotel, the boarding-house, were households of their own as easily obtainable, and as perfectly organized. To put trained domestic help, then, within the reach of all householders, as is the primary object of the Domestic Service Association, is to win the swiftly repentant prodigals from hotel and boarding-house attic, the

recluse from his silent and solitary room as well, and place them each in a home which will be in the coming *regime* what it was under the wise and practical reign of our grandmothers—a center of well-nigh Edenic content and happiness.

The beneficent organization which promises so much, composed of ladies residing in the large cities and towns, purposes to form a National Board, whose duty it shall be to extend the work of domestic service reform, by the formation of State and local branches. It will establish training-schools for domestics, and by securing proper legislation, introduce

the teaching of cookery and housework into the public schools. As the disfavor with which wage-earners have come to look upon housework as an employment was, originally, no doubt, largely due to the reproach cast upon it by the employers themselves, in their treatment of their helpers, this Association begins at the very root of the matter, by elevating domestic service by influence, training, and education. The ability to turn off skilled work will cause the housewife to respect, honor, and appreciate her domestics, and will thus practically do away with the idea entertained by both employer and employed, that it is degrading to work in other people's homes for money.

The Association will also proceed to lighten and systematize household labor, acting as a friendly go-between to the over-burdened housewife and the illy paid wage-earner, regulating wages, and altogether making this branch of womanly employment more desirable than hitherto, to the relief of other overcrowded avenues of work.

There will be established home training-schools, and also a national school, which will prepare teachers for the others. Connected with these there will be an intelligence bureau, thus securing the advantages of care, training, and good homes for both foreign and American girls. These home training-schools, besides giving an exhaustive drill in every branch of household work, also provide a temporary home for working girls when out of employment, where clean rooms and plain, wholesome board can be furnished at a moderate cost.

This, so far, was the original plan and scope of the

society known and chartered under the title of the "Sunshine Mission." Owing, however, to the efforts of Mrs. Joel Swartz, of Gettysburg, Pa., a lady of broad, philanthropic views, and of wide experience in the needs of American homes, with the assumption of its new name,—Domestic Service Association,—its scope is to be broadened so as to be made, in her own words, "to help young women of all classes to become better prepared to meet the sacred duties of housekeeping and motherhood." The added departments will be reading circles, circulating libraries, a lecture bureau, cooking-schools, sewing-schools, study of domestic science in seminaries and colleges for girls, and domestic science training-schools. Students will be taught, theoretically and practically, the proper care of the sick and the management of children, and that simplicity of life will be inculcated which makes for the preservation of health. In short, its range will be so great as to include whatever is in any way calculated to promote the welfare of the family. The plan has already, as it ought, the indorsement of many prominent philanthropists and educators, and the attention of all intelligent people, everywhere, should be called to it.

Mrs. Swartz has editorial charge of a department representing the Domestic Service Association, in *City and Country*, a monthly paper published in Columbus, Ohio, and remittance for membership fee (\$1.00), or applications for information in regard to the organization of branch societies, may either be inclosed to her address, or to that of the Recording Secretary, Miss Bessie Wills Deakayne, 832 Pine St., Philadelphia, Pa.

MOLDED DESSERTS.

As the hot weather advances, and the discomfort of working over the kitchen stove increases, it is especially desirable that the dessert, if one is considered necessary, be something that can be prepared in the cool of the morning. For this purpose the following recipes will be found serviceable:—

PINE-APPLE TAPIOCA.—Soak one cup of tapioca over night in one and a half cups of water. In the morning add two and a half cups of water, and cook until transparent, in a double boiler. When done add one cup of sugar, and one pine-apple pared, cored, and finely minced. Turn into cups wet with cold water, and mold. Serve cold with whipped cream.

COCOANUT BLANC MANGE.—Simmer two tablespoonfuls of dessicated cocoanut in a pint of milk

for twenty minutes, then strain through a fine sieve. If necessary, add more cold milk to make a full pint. Add a tablespoonful of sugar. Heat to boiling, and stir in gradually two tablespoonfuls of cornstarch, rubbed smooth in a little cold milk. Cook five minutes; turn into cups, and serve cold with fruit sauce or cream.

FARINA FRUIT MOLD.—Put a quart of well-sweetened red raspberry juice into the inner cup of a double boiler. Heat to boiling, and stir in four heaping tablespoonfuls of farina, moistened with a little of the juice, which has been reserved for the purpose. Cook until thickened; then set into the outer boiler, the water in which should be boiling, and cook for one hour. Mold, and serve cold with whipped cream.

QUESTION BOX.

[All questions must be accompanied by the full name and address of the writer, as it is often necessary to address by letter the person asking the question.]

ELECTRICAL APPLIANCES.—R. C. B., Ont., wants to know if there is any virtue in electric teething necklaces, and similar appliances for curing all sorts of diseases?

Ans.—No.

MASSAGE AND ELECTRICITY MACHINE.—W. H., Iowa, asks: "Is the Massage and Electricity Machine manufactured by Dr. Butler, of New York City, a good thing, or another twenty-five-dollar humbug?"

Ans.—We know nothing about the apparatus.

IMPURE WATER *vs.* CONDENSED STEAM.—C. W., Cal., asks: "When circumstances require, would it not be better to drink the water condensed in the steam radiators than that drawn directly from the water-works supply?"

Ans.—The condensed water to be obtained from the ordinary steam heater is often disagreeable in flavor, owing to the presence of substances used in cleansing the boilers. Ordinary hydrant water is safe, if boiled before using.

CHANGING AN INFANT'S DIET.—Mrs. M. H. A., Fla., asks: "We have fed our baby on condensed milk, but being about to go on a farm for the summer, could obtain fresh cow's milk. Would such a change be advisable? and should the milk first be brought to a boil? Is there any peculiar virtue in the use of condensed milk for infants, as claimed?"

Ans.—Fresh cow's milk from a healthy animal, properly diluted, is always preferable to condensed milk. It is always desirable that the milk should be kept at a temperature equal to boiling heat for ten or fifteen minutes, then cooled before using.

DIET FOR ACIDITY OF STOMACH.—Mrs. F. W., Mich., asks: "Do you consider milk a good article of diet for one suffering from acidity of the stomach and headache? What is a good diet for such a person?"

Ans.—In many cases of the sort named, milk must be interdicted. The best diet is food which requires thorough mastication, such as bread twice baked, and other foods which must be thoroughly chewed before swallowing. A diet consisting of twice-baked bread and a moderate allowance of lean meat, will generally agree well with dyspeptics of this class; but nothing is superior to gluten as a remedy for acidity of the stomach.

EXCESSIVE PERSPIRATION.—Mrs. D. A. W., Wash., inquires if excessive perspiration in the arm-pits is a disease, and if there is any remedy for the same.

Ans.—Bathe the affected parts with vinegar, and afterwards apply a powder consisting of equal parts of subcarbonate of bismuth and boracic acid. This remedy is usually effective if the condition is due to disease.

USE OF STEAM INHALER.—Mrs. E. F. D., Iowa, inquires: "1. Can any oxygen be obtained from water used in a steam inhaler? 2. Would any other class of patients except those suffering from throat and lung troubles, be benefited by using warm water through an inhaler? 3. Would the frequent inhalation of hot steam predispose one to throat or lung disease?"

Ans.—1. No. 2. Little, if any, benefit will be derived from the use of the steam inhaler by persons not suffering from lung ailments, to which its use is specially adapted. 3. No.

OATMEAL—DATES, ETC.—E. C., Manitoba, asks: "1. Can the hulls from granulated oatmeal injure the stomach? 2. Is there liability of imported fruits, dates, figs, etc., carrying disease germs?"

Ans.—1. No, at least under ordinary conditions. It is possible that a person suffering from ulceration of the stomach or inflammation of the bowels might be injured by the coarse, woody matter contained in unbolted wheat meal or oatmeal, but persons of ordinary health will not in any way be injured thereby. 2. We have never known of any instance in which persons have contracted disease by the use of fresh foreign fruits.

COOKING BY STEAM.—B. D. G., Neb., wishes to know if food is more healthful when cooked by steam so that the flavors are retained than when prepared in the ordinary way? If so, why?

Ans.—Many foods are more healthful when cooked by steam than when boiled or stewed, for the reason that the process of boiling or stewing extracts a considerable part of nutritive matter from the food; whereas, when steamed or baked, all the nutritive elements are retained. In the case of some food substances, however, such as onions and all kinds of flesh foods, boiling or stewing is preferable to baking, as the first-mentioned process removes from the food matters which are deleterious.

LITERARY NOTICES.

WITH the June number of the *Dietetic Gazette* will begin an extended article by J. Lewis Smith, M. D., Clinical Professor of Diseases of Children, in Bellevue Hospital Medical College, on the Care and Feeding of Infants, with remarks on the "Great Mortality of Infants in the Summer Months, and Mode of Preventing It." New York and Philadelphia.

THE June *Pansy* is here, filled with stories, verse, and pictures, many of them full-page, and is as interesting to the little folks as ever. It is always safe to place this little magazine in the hands of the children, for it is eminently pure and healthful reading. The D. Lothrop Company, Boston, will send specimen numbers free to all readers of GOOD HEALTH.

"HELEN," an illustrated poem, by Campbell Waldo Waite, 388 pages, W. E. Dibble & Co., publishers, Chicago, Ill. In his dedication of the volume, the author refers to it as "the story of a woman's struggle towards the light." But it is much more than this, for all his characters struggle outward and upward; everywhere there is healthy growth. A pure book, a worthy book,—and while entertainingly written, it is one in which only goodness and virtue are made to seem worth commendation or imitation.

Scribner's Magazine for June is a Stanley number, having for its frontispiece the portrait of the great explorer, in connection with the only article he will contribute to any periodical, and the first authoritative word from him on many of the most important features of his great expedition for the relief of Emin Pasha. There is, however, much worthy matter in addition; among which is "The City House," by Russell Sturgis, "Barbizon and Jean François Millet," by T. H. Bartlett, an installment of "In the Valley," by Harold Frederic, and "The Rights of the Citizen," by Seth Low, President of Columbia College. Chas. Scribner's Sons, New York.

THE *Ladies' Home Journal* for June has sixty articles, in which over fifty authors discuss every conceivable point of interest to women. "Are Women Careless of Money?" is a striking article by Junius Henri Browne, in which the author takes up the question whether women ruin men by their extravagance. Ellen Le Garde delightfully treats some "Out-Door Sports for Girls;" Mrs. Henry Ward Beecher writes for mothers; Ella Wheeler Wilcox has a poem, Felix L. Oswald, Eben E. Rexford, Edward W. Bok, Wol-

stan Dixey, all have articles, and there are still other articles that will interest every woman in the land. The *Journal* is published at 433-435 Arch street, Philadelphia, Pa.

THE June *Century* opens with another article by Albert Shaw, whose paper on "Glasgow" recently attracted so much attention. The frontispiece is a portrait of Walter Besant, author of "All Sorts and Conditions of Men." Charles de Kay has another paper in his series on Ireland, this one being entitled "Irish Kings and Brehons." Mr. de Kay gives new derivations of the names of the five Irish provinces. The pictures accompanying this article are very curious and instructive, including a landscape by Alexander, of "Reginald's Tower." An extremely timely paper is Edward Atkinson's on "Comparative Taxation," which will be found to bear directly upon current discussions of tariff revision. The Century Co., N. Y.

"VIGILANTE DAYS AND WAYS: The Pioneers of the Rockies. The Makers and Making of Montana, Idaho, Oregon, Washington, and Wyoming," by Nathaniel Pitt Langford. Illustrated. J. G. Cupples Co., publishers. Sold by subscription. Himself a prominent actor in the events he narrates, Mr. Langford was one of the pioneers of the Rockies, having made the journey with ox-teams across the plains two years before Montana became a territory, and when Dakota and Washington joined upon each other, and Montana, Idaho, and Wyoming were parts of Dakota and Washington. His work constitutes a well-told story of adventure that is yet historic, and a history that is at the same time romantic and absorbingly entertaining.

SEVERAL especially valuable articles appear in *Good Housekeeping* for May 24, the first of which opens a new series of practical household papers on "The Head, the Hands, the Feet." The present essay treats of the eyes and ears, giving many interesting facts and suggestions regarding their uses and abuses, which if read and heeded, must be of great benefit. There are an abundance of papers pertaining to household economy, work in the kitchen, treatment of children, and the preparation of food, with something relating to the garden. Mrs. Campbell's department of "Woman's Work and Wages" is always interesting and valuable, in the light it throws upon this important phase of our industrial situation. Clark W. Bryan & Co., Publishers, Springfield, Mass.

PUBLISHERS' PAGE.

FOR various considerations, the publication of the GOOD HEALTH SCIENTIFIC SUPPLEMENT has been postponed, to begin with the next volume of GOOD HEALTH. Full particulars will be given next month.

* *

THE attention of the managers of the Sanitarium has been called to the fact that the Denver newspapers have stated that the Battle Creek Sanitarium was to be removed to Denver. Of course all acquainted with the institution will at once recognize the incredibility of this report. The managers of the institution have been contemplating for some time the establishment of a branch institution in Colorado, but have had no thought of removing this institution to that or any other State. The work has grown to be so large at this present site that removal would be practically impossible. For nearly twenty-five years, invalids from all parts of the world have been making pilgrimages to Battle Creek, in search of health, until at the present time this great institution is visited by between four and five thousand people annually. It would be next to impossible to divert this great throng of individuals elsewhere. If the institution were removed to Colorado or any other State, the individuals would still come, and another institution of similar character would quickly spring into existence to meet the demand. The Battle Creek Sanitarium has no idea of moving anywhere, but instead, is reaching out its arms of influence to the establishment of branch institutions in various parts of the country, and sending missionaries abroad throughout this and other lands, for the purpose of extending the knowledge of the principles upon which its great work is grounded.

* *

THE addition to the Sanitarium is progressing rapidly, and will be completed in a few weeks. The contractors are under bonds to have the entire structure finished by August 1, and it is expected that rooms in the upper stories will be ready for occupancy within four weeks from the present time. Finding that even this commodious addition was not going to be sufficient to accommodate the increasing patronage of the institution, the managers determined to add another story to the old portion of the main building, which is already under way. This valuable improvement will be completed by July 6, the frame being already erected, and the roof on. These improvements will add between sixty and seventy rooms to the accommodations for patients, including more than twenty beautiful suites. The whole top of the old main part will be a fine promenade deck, surrounded by a strong railing.

The Sanitarium managers are getting their villa at Lake Goguaac in order for summer visitors. The Sanitarium Goguaac villa affords rural attractions to perfection, with facilities for exercise and aquatic sports of all kinds. A fine steamer plies up and down the lake hourly. The advantages of this delightful resort are enhanced by the fact that it is at the terminus of the street railway which connects with the Sanitarium by a half-hour's ride. It is also connected with the Sanitarium by telephone. The excellent Sanitarium *cuisine* is maintained at the villa.

The Central Traffic Association has been led, by the patronage of the Sanitarium, to make Battle Creek a tourist point, and publishes it as such in its tourist rate sheet. Steps are being taken to extend this arrangement to all the railroad lines in the South and West connecting with the lines of the Central Traffic Association, a notice of which will be given in a future number of this journal.

A SANITARY convention will be held at Battle Creek, Mich., June 25 and 26, under the auspices of the State Board of Health. The following is a brief extract of the program, which has been prepared by the local committee, with the assistance of the able Secretary of the Board, Dr. H. B. Baker, through whose efforts sanitary conventions have been made a practical success in this State, and through the example of this State in several other leading States, also: The Commonwealth and the Common Health; The Best Methods of Sewerage in Battle Creek; Nuisances: What they Are and How to Abate Them; The Present and Future Water-Supply of Battle Creek; Ventilation of Residences and Public Buildings; Habits in Relation to Health; Natural Law in Epidemics; The Germ Theory of Disease, and its Bearings on Modern Life; Restriction and Prevention of the Dangerous Communicable Diseases.

* *

THE *Chicago Journal* says: "Not content with beating the world with its Art Calenders for 1890, the Chicago & Grand Trunk Railway has now eclipsed its own record by the publication of a magazine entitled, 'Gateways of Tourist Travel.' The work is elegantly gotten up, and contains a host of the finest photogravure views of scenes along the line of the road. The whole forms a work of art." This beautiful book is printed on coated book paper, with seventy-five engravings, all of the photogravure or half-tone process, fifty large quarto pages, and mailed free to any address on receipt of 20 cents in postage stamps, by W. E. Davis, G. P. & T. A., Chicago & Grand Trunk Railway, Chicago, Ill.

* *

TEACHERS in public schools, and other persons, of both sexes, should avail themselves of the superior advantages afforded by the State Agricultural College as a summer school. Its library, numerous laboratories, cabinets, museums, shops, farm, gardens, and orchards give it unequalled facilities in helping teachers and other special students. The beauty of its lawns, groves, drives, and gardens make it most attractive as a place for the rest that comes by change of work and study. Its regular classes are in session all summer, and students can enter them at any time, if prepared. In many cases teachers desire to take individual laboratory work; this they can do under the direction of trained specialists. Advanced students have special attention. For catalogues and circulars apply to H. G. Reynolds, Secretary, Agricultural College P. O., Mich.

* *

"COLORADO CITIES AND PLACES." This is the title of a pamphlet just issued by the passenger department of the Chicago, Rock Island & Pacific Railway. It comprises 60 pages of valuable information, relating to some of the principal cities and resorts of Colorado, with 52 beautiful illustrations of different scenic views and localities, engraved from original photographs, and which have never before appeared in any work of this kind. In the last two supplementary pages, a carefully revised list is given of the leading hotels, restaurants, etc., in the cities and places described, with the names of their proprietors, the rates per day or week, and the character of accommodations provided. Copies will be mailed free to applicants in any part of the world, on receipt of 4 cents each for postage. Address, John Sebastian, G. T. & P. A., C. R. I. & P. Ry., Chicago, Ill.

ADVERTISEMENTS.



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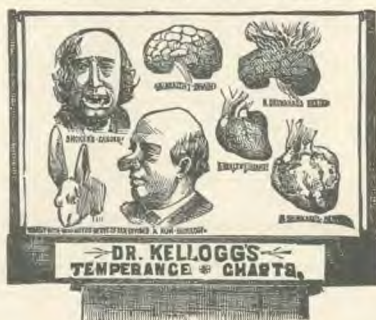
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PLATE 1. The Alcohol Family.
PLATE 2. A Healthy Stomach.
PLATE 3. Stomach of a Moderate Drinker.
PLATE 4. Stomach of a Hard Drinker.
PLATE 5. Stomach in Delirium Tremens.
PLATE 6. Cancer of the Stomach.
PLATE 7. A.—Healthy Nerve Cells. B.—Fatty Degeneration of Nerve Cells. C.—Healthy Blood. D.—Blood of an Habitual Smoker. E.—Blood of a Drunkard. F.—Blood Destroyed by Alcohol. G.—The Drunkard's Ring. H.—Healthy Nerve Fibres. I.—Fatty Degeneration of Nerve Fibres. J.—Healthy Muscle Fibres. K.—Fatty Degeneration of Muscle Fibres.
PLATE 8. Smoker's Cancer. A Rum Blossom. A Healthy Brain A Drunkard's Brain. A Healthy Heart. A Drunkard's Heart.
PLATE 9. A. A Healthy Lung. B.—Drunkard's Consumption. D.—A Healthy Kidney. E.—Enlarged Fatt. Kidney of Beer-Drinker. F.—Atrophied Kidney of Gin-Drinker. G.—Healthy Liver.



H.—Liver of Drunkard, Showing Nutmeg Degeneration. I.—Magnified Section of Fatty Liver of Drunkard. J.—View of an Eye Diseased from the Use of Tobacco and Whisky. K.—View of the Interior of a Healthy Eye.

PLATE 10. Alcoholic Drinks, showing the percentage of Alcohol contained in the common Alcoholic Beverages. Adulterants of Alcoholic Drinks, showing a list of poisons used in adulterating the various liquors. Sphygmographic Tracings of the Pulse, showing the effects of Alcohol and Tobacco upon the pulse. A.—Pulse of a Healthy Person. B.—Pulse of a Moderate Drinker. C.—Pulse of a Drunkard. D.—Pulse of an Old Tobacco-User. E. Pulse of a Young Smoker.

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P.M.	4.25	Ar.	Allegan	Lv.	A.M.
A.M.	1.30	P.M.	Ar.	Battle Creek	Lv.
P.M.	6.00	A.M.	Lv.	Toledo	Ar.
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MICHIGAN CENTRAL

"The Niagara Falls Route."

Corrected May 18, 1890

EAST.		† Mail.	† Day Express.	† N. Shore Limited.	† N. Y. Express.	† Atl'ntic Express.	† Amer. Express.	† Kal. Accom'n
STATIONS.								
Chicago.....	am 7.10	am 9.00	pm 12.70	pm 3.30	pm 10.10	pm 9.00	pm 4.50	
Michigan City	9.05	11.10	1.50	4.48	12.20	10.53	7.03	
Niles.....	10.21	pm 12. 5	2.53	5.55	1.52	m 12.00	8.25	
Kalamazoo ..	11.50	2.20	3.58	7.04	3.85	am 1.18	pm 10.05	
Battle Creek...	pm 12.55	3.05	4.30	7.37	4.25	2.00	am 7.10	
Jackson.....	3.10	4.30	5.33	8.52	6.15	3.40	5.55	
Ann Arbor.....	4.45	5.32	6.29	9.45	7.45	4.55	11.00	
Detroit.....	6.15	6.45	7.30	10.45	9.20	6.20	pm 12.10	
Buffalo.....	am 8.25	am 3.25	am 3.25	am 6.25	am 4.55	pm 2.15	8.30	
Rochester.....			6.00	9.20	8.00		11.20	
Syracuse.....			8.00	11.35	10.20		am 1.30	
New York.....			pm 4.00	pm 8.50	am 7.20		9.45	
Boston.....			8.30	10.57	9.55		pm 2.50	
WEST.								
	† Mail.	† Day Express.	† N. Shore Limited.	† Chicago Express	† Pacific Express.	† Kal. Accom'n	† Niles Accom'n	
STATIONS.								
Boston.....		am 8.30		pm 3.30	pm 7.00			
New York.....		11.50	pm 4.51	6.00	10.00			
Syracuse.....		pm 8.30	11.55	4.20	am 8.00			
Rochester.....		10.40	am 1.42	2.10	10.45			
Buffalo.....	pm 11.30	1.50		5.30	1.00	am 8.45		
Sp. exp. Bldg.	am 12.8	am 12.28	3.05	6.25	pm 12.50			
Detroit.....	9.05	7.05	9.25	pm 1.20	9.15	4.4	pm 5.55	
Ann Arbor.....	10.37	8.55	10.19	2.17	10.30	5.58	7.10	
Jackson.....	pm 12.15	10.05	11.18	3.20	11.50	7.11	pm 8.30	
Battle Creek...	1.50	11.35	pm 12.22	4.30	am 1.23	8.47	7.55	
Kalamazoo... ..	2.37	pm 12.12	12.59	5.02	2.17	pm 4.30	am 7.20	
Niles.....	4.17	1.23	2.0	6.17	4.05	7.40	10.05	
Michigan City	5.42	2.25	3.18	7.20	5.45	8.55		
Chicago.....	7.55	4.15	4.50	9.00	8.05	11.20		

* Daily. † Daily except Sunday.

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Chicago & Grand Trunk R. R.

Time Table, in Effect Jan 19, 1890.

GOING WEST.					STATIONS.		GOING EAST.				
pm	pm	pm	pm	pm			am	pm	pm	pm	
3.00		7.00			Boston.		8.30	7.30	7.30	7.30	
pm							pm	am	am	am	
5.00		8.00			New York.		11.10	7.40	10.10	10.10	
am	am						pm	pm	pm	pm	
6.20	6.32	1.00			Buffalo.		9.50	5.40	7.30	9.00	
am	am	pm					pm	pm	pm	pm	
7.45	7.35	2.45			Niagara Falls.		8.15	3.17	5.30	7.10	
			am				pm	am	pm	pm	
	8.30		1.00		Boston.		9.50	12.10	12.10	12.10	
pm	pm						pm	am	am	am	
8.30	8.30		11.55		Montreal.		8.00	7.45	7.45	7.45	
							pm	pm	pm	pm	
			1.00		Toronto.		8.40	7.25	7.25	7.25	
							am				
					Detroit.		9.45	7.45		11.30	
Chl. Pass.	B. C. Pass.	Land Exp.	Pacific Exp.	Pacific Exp.	Mail Exp.		Mail.	Land Exp.	Active Exp.	Night Exp.	
am	pm	pm	pm	pm	Dep.		Arr.	pm	am	am	
6.55	4.10	12.45	8.55	7.45	Port Huron.		10.20	1.05	7.35	10.00	
7.28	5.40	1.55	10.20	9.08	Lapeer.		8.4	11.48	6.10	8.31	
8.05	6.20	2.25	10.90	9.45	Flint.		7.55	11.17	5.40	7.45	
8.48	7.15	2.59	11.28	10.30	Durand.		7.19	10.45	5.10	7.00	
10.48	8.45	3.42	12.17	11.35	Lansing.		5.35	9.57	4.00	6.05	
10.37	9.00	4.13	1.09	12.08	Charlotte.		4.57	9.27	3.25	5.35	
1.00	10.00	5.00	2.00	1.00	RATTLE CREEK.		4.05	8.45	2.35	4.55	
1.49	pm		2.50	1.48	Vicksburg.		3.19	8.01	1.48		
2.10				1.58	Schoolcraft.		3.03		1.38		
2.52		6.19	8.43	2.45	Cassopolis.		2.13	7.16	12.45	3.25	
3.40		6.50	4.43	3.36	South Bend.		1.25	6.40	12.50	2.50	
5.00				4.52	Haskell's.		12.05				
5.20		8.10	5.55	5.10	Valparaiso.		11.50	5.20	10.30	1.30	
pm		10.10	8.10	7.30	Chicago.		9.05	3.15	8.15	11.25	
pm	am	am	am	pm	Arr.		Dep.	am	pm	pm	

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