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ALCOHOLIC AND NON-ALCOHOLIC TREAT-MENT TESTED BY RESULTS.*

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I HAVE listened with great pleasure and profit to the very valuable statements of experience which we have had here tonight upon the objects which we are met to discuss,—the personal and professional experience of the speakers as practitioners of medicine. There are three gentlemen who have kept to those points. The first is Dr. Collenette; the second, Mr. Townson; and the third, Mr. Bennett. Now, Mr. Chairman, I would say that I indorse most heartily everything that has fallen from the lips of those gentlemen. I would add that only a few weeks since I had a letter from one of the great men whose names have been mentioned to-night, and that is Mr. Higginbottom, of Nottingham. The old man could not come here to-night to speak to this audience; but he wrote to me and told me that he had been in practice for sixty years, and that there was no greater curse than the way in which our profession had misled the publie in regard to this question. He told me that for something like forty years he had never given spirits; and no language could have been stronger or more impressive than the language which the old man, after sixty years of active practice, at eighty years of age, used in his letter to me on this question.

Well now, sir, as to my own personal experience. I have been in the active practice of medicine for more than twenty years. My whole life has been spent in

preparation for medical practice, and in the active exercise of the duties of my profession. As a student, I had the good fortune to hear both sides of this question, for I happened to be a pupil of the celebrated Dr. Carpenter in physiology, and just twenty years ago I commenced my first session of formal hospital study in that branch, and used often to wait for Dr. Carpenter, and walk a couple of miles or so home with him in order to have the treat of hearing him talk, after his lecture, on this and some other subjects. He impressed upon my mind the practical results which he told me he had found in reference to the use of alcohol, but on the other hand, all the clinical teachers with whom I came in contact believed as firmly in the use of wine, beer, and spirits, not merely in cases of disease, but in cases of health, as thirty years before men did in the use of bleeding, and mercurializing, and starving.

For years I went on without any very clear convictions upon the matter, using spirits very largely and very freely, as was then the habit and fashion of the day, but yet myself practically remaining an exceedingly temperate man,-often months together a total abstainer. I was a total abstainer throughout the period of my work in the dissecting room, and there I used to hear men say that they could not do the dissecting unless they took spirits or beer. I found that I did it perfectly well, and never had any ailment whatever, whereas other men who were engaged in the same work were constantly complaining of diarrhea, and of being half poisoned by the effluvia to which they were obliged to expose themselves. My next experience was at Newcastle, in the epidemic of cholera, which

Speech at a great Medical Temperance Meeting in Exeter Hall.

carried off, I think, in the first eleven days I was in the town, over one thousand people. That was in the autumn of the year 1853. For nearly three months in Newcastle and Dundee, I was occupied in handling cholera patients and attending to them all the working hours of the day. I took no wine, beer, or spirits during the time, and I never had better health in my life.

After settling in practice in London and getting into hard work, I still went on with the conviction that these things were necessary in sickness, and I had no very strong feeling in regard to the moral responsibility which is involved in this matter. My attention was then again called to the question by being asked to take the chair at a temperance meeting. The result of that was that the subject was fastened upon my mind in another way, and I never afterward shook it off. It settled itself down in my mind, and there it worked itself out into a very clear conviction that we were mistaken in the way in which we prescribed these drinks, and from that time I became, if anything, personally a more frequent abstainer than before. I went on testing it, and perhaps four or six months together I would take nothing at all in the way of alcohol, and then for three or four months together I would take a glass of beer two or three times a day, or a glass of sherry. I found that I liked the beer or I liked the glass of sherry when I was accustomed to take it, and that when I first left it off I missed it. But when I came to take stock carefully of my power for work, of my accuracy in memory, of my readiness in every way in my profession, and of my general condition, I found that I was better when I took none of these things than when I took them.

My wife was led to adopt practically the same rule in life. I shall never forget when she was nursing her first child, who is now a little girl of about twelve or thirteen years of age, an old friend, a physician of some eminence, was chatting in my drawing-room, and it came out that my wife was nursing her child without taking any stout, and he said to her, "You know, Mrs. Edmunds, your husband is a little crochety, and you will damage your health if you go on." She said she had not damaged her health yet. "But," he said, "you may do it once while you are so young, but you will find it out the second or third time, and you

will break down if you don't take something." Since then my wife has nursed five children, twelve months each, without anything of the kind. Although not naturally strong, she has maintained her health in the most satisfactory manner, and the children enjoy more than average health and strength. My own personal conclusion in respect to my wife, my children, and myself, is that in every way we are all of us gainers by personal abstinence.

As to my professional experience, I think I have alluded to the prejudice with which I, in common with other medical men, started in life as practitioners; and one is not to be blamed altogether for that; for young men will do best, generally speaking, to follow the advice and example of those who are older than themselves. They are, I think, bound to do that, wherever there is a clear weight of opinion in reference to which a serious responsibility has to be exercised; and the physician's duty at the bedside of the sick and dying is a serious responsibility which he must discharge and exercise in full view of that which is the opinion generally held by his seniors in the profession. But there are times and there are circumstances which necessitate his looking at such a dogma, with all its weight and all its authority, straight in the face, and investigating it thoroughly. My attention was called to this question in precisely the same way that the three other gentlemen who have mentioned the matter have said that their attention was called to it,-not by their medical teachers, not by the clergymen, not by the magistrates, not by the people whom they met at dinner or met in their drawing-rooms; but by hard-handed working men, who came to them for advice, who challenged them, and said, "If you will give me a reason for taking this beer, I will take it, for I am sure you would not recommend me to do that which you had not a good reason for telling me to do; but my experience has shown me that people are better without these things than with them, and I want to learn what they are to do for me now, when I am a little out of health, and how that which is not good for me when well can be good for me when I want more power in order to throw off my sickness."

I, sir, like our friend Dr. Collenette, had no answer to give, and felt ashamed of myself, and in consequence of that I really examined the dogma of the profession, and I tried carefully those cases of fever, those cases of delirium tremens, those cases of loss of appetite, those cases of general debility, of indigestion, and so on, in which we are generally in the habit of prescribing these liquors almost indiscriminately, and going on step by step, lessening and lessening the quantity, I found that my patients, instead of doing worse, did a great deal better. Take the cases of debility. Nothing is more common than when a man gets out of health from mere overwork, from some improper use of his health, from some misuse of his faculties, or some other thing which ought to be remedied by the rules of hygiene, which ought to be prevented and cured by the removal of its cause,-nothing, sir, is more common in these cases than to tell the man to take a little wine, instead of telling him to look into his surroundings and get rid of the cause. I find that what is wanted with these cases of debility is regular work, proper hygiene, mental discipline of the individual, and a proper system of diet and regimen; and then I find that they will get well better without drink than they do with it. With regard to loss of appetite, it is quite true that, if a man has been accustomed to drink alcoholic liquors at his meals, when he first leaves them off he will miss them and fail in his appetite for a time; but, sir, so he would if he were in the habit of smoking a cigar before dinner; so he would if he were in the habit of sucking his thumb before dinner. In fact, it is a mere habit, and whenever a man tells me that he cannot eat his dinner without his glass or two of wine, I know that the wine has got hold of him to that extent. I know that is all the more reason why he should leave it off, and I always find that, if he will adopt the advice which is given to him, and leave it off, in a week he will eat more than he did before, will digest it infinitely better, and get stronger in every way.

Cases of fever. In the conversations I used to have with Dr. Carpenter I learned that his view was that wine was good in cases of fever, that that was one of the sets of cases in which wine was useful. Those were the opinions Dr. Carpenter used to hold at the time of my communication with him twenty years ago, and for a much longer time I was in

the habit of administering alcoholics in cases of fever, but I left it off gradually, and I now find that patients do better in fever without wine than they did with it. I cannot say anything stronger than has already been said by one of the representative men of our profession, Dr. Gairdner, of Glasgow, who has proved beyond question that patients in fever do infinitely better when they are fed on a milk diet without spirit, than when they are treated with alcoholic beverages. The mortality which Dr. Gairdner had, was less than half that which occurred under Dr. Todd, of London, a man most eminent, but who sang the praises of brandy at every turn and to every patient.

Cases of rheumatism. That is about the only disorder which occurs to me that has not already been alluded to to-night, in which marked influence is manifested by spirit, and I would say, sir, that cases of rheumatism in a large measure seem to me to depend on a damaged condition of the tissues of the body, caused by soaking in spirit, and I believe that rheumatism, acute or chronic, is infinitely better treated

without spirit than with it.

Delirium tremens is a disease of which I have seen a good deal. Years ago I was a surgeon to the Draymen's Club at Hanbury's brewhouse. I was also surgeon for seven years to one of the largest divisions of the metropolitan police, the And perhaps these two H division. classes of men are most exposed to drink of all classes of men. The police are bribed at every turn with alcoholic liquor, and large numbers of them are foolish enough to take it. Often they do this rather than run the risk of offending the person who offers it to them; and the result of that was that I saw a great deal of ill-health produced in these two classes solely and entirely by the use of alcohol. For a long time I believed it was right to treat delirium tremens on the principle of giving a man "a hair of the dog that bit him." When I first left off spirit, as I did gradually in those cases,-and they were the last hold of this doctrine on my mind,-I used to substitute for it, first, chloroform in its inhalation, and then opium. I have now for several years done entirely without either opium, chloroform, spirit, or any other narcotic, and I have never lost a patient in delirium tremens since I adopted the

The treatment which I adopt in deli-

rium tremens is simply that of looking at the man as suffering from two factors in his disease,-the first is damaged nerve tissue by soaking with alcohol, and the second is acute poisoning by alcohol in his blood. What is the proper way of treating such a disease? Suppose a man has been poisoned with arsenic, taken slowly at first, and then a large dose at last. The slow poisoning of the arsenic has damaged certain tissues in his body. The large dose which he takes at last has produced vomiting and inflammation of the How should we treat him? stomach. By giving him a little more arsenic, and then leaving it off gradually? I think not. I think the first thing to do would be to look round and see who was doctoring him with arsenic, and stop the in-going of the arsenic; and I think the next would be to put the man under such conditions as to eliminate the arsenic as rapidly as possible; and I think the third thing would be to look after a man's surroundings in such a way by food, and bathing, and ventilation, and hygiene in general, as to support his strength and enable him to throw off and survive the disease or mischief that has come upon him.

Now, sir, upon that simple principle I say that delirium tremens should be treated. A man has poisoned and damaged his tissues by long soaking with spirit; a man has poisoned his brain with a large dose of the poison that he has taken, say, in the last week, and he should be put precisely in the same circumstances in which he would be placed if he had taken arsenic as before described. I put him to bed, and sometimes I have to lock up his clothes, or tell his wife to do it, in order to prevent his going to the publichouse. I economize the strength which he has left in him. I stop all the supplies of spirit; I order him a simple bath, a simple purgative to eliminate what spirit remains in him, and I give him such simple food as he can digest, in order to replenish the powers of his system, and the result is, that in a week he is always well.

I will say a few words in reference to nursing mothers. My advice to all the ladies who consult me in reference to this question is, to look after their food carefully, and abstain from alcohol. Some of them wont take it. That I can't help. Some of them do, and I look round upon families in which the mothers have adopted this advice, and I have seen no families in which the mothers have done so well, and

the children have been so fortunate. If you want to age a woman, to coarsen her skin, to make her fat and pimply, tell her to take two pints of stout a day while she is nursing her children, and that which you see in the faces of such women is the mere outward and visible sign of a change that permeates every fiber in their bodies.

My general conclusions are these,—that if you want to maintain your health you should abstain from alcoholic liquor; that every particle of alcoholic liquor you take into your system is as much poison as a particle of arsenie; and that those who abstain will not only be exempt from a great deal of disease, but will increase their longevity in a very remarkable degree.

—Temperance Tract.

A LETTER FROM INDIA.

DEAR DR. KELLOGG: In response to your invitation, I will send you a few lines. And first, I must thank you for "Good Health," which visits us monthly in our home in the interior of this far-away land. We are now in the midst of our hot season. We have three seasons, rainy, cold, and hot; though sometimes the year is simply divided into two seasons, the rainy and the dry. We are now twenty-seven miles away from Ellichpoor, out in the mountain district. We are seeking to give the gospel of Jesus to an aboriginal race in these mountain regions, who never had any preacher of the gospel among them before we came, and whose language is not yet reduced to writing, though we are doing what we can to reduce it. They are called Korkoos. They belong to the Kolarian family of races, which, according to Monier Williams, numbers about three millions. To this family belong the Santals and Kohls of Bengal, among whom there have been large accessions to Christianity in the past few years, more than forty thousand of the Kohls alone having become Christians in the past twenty or thirty years. You ask me to write "respecting the sanitary condition of the people in India; their habits in relation to health; and the progress of sanitary and hygienic information among them. Now this is a large subject; for India is a large country, with over two hundred and fifty millions of human souls, with a considerable wider variety of climate than can be found in the United States. Of course the larger part of India is tropical. But the hill stations of Northern Bengal,

N. W. Provinces, and the Punjab, like Simla and Darjeeling, have a temperature similar to that of Battle Creek, in winter frequently having three feet of snow.

In its natural advantages for health and longevity, I do not think that India is exceeded by any country on the globe. With its high mountains (some of them two miles higher than the loftiest peak in North America); with its peninsulashores, formed by the life-giving breezes of the ocean, which reach far inland with their tonic, cooling influences; and with as rich a soil as the sun shines on, capable of producing all the varieties of fruits, vegetables, and grains found on the globe, it is not strange that this country, with less than one-half of the territory of the United States, can support a population five times as great, and at the same time support the costliest civil service in the world, and pay the major part of the expenses of the standing army of Great Britain. There is no doubt, in my mind, that the climate of this land has been greatly misrepresented (of course unwittingly) by some returned missionaries and by some of the returned English civilians. But how is it, you say, so many have lost their health in India? Many missionaries (myself among the number) have come here, and for months or years one man has been overworking, doing twice or thrice as much work as he was able, and at the same time falling into the prevalent luxurious dietetic habits of the English officers of this country. It is not at all surprising that so many of the European officers and soldiers in this country go back to Europe with diseased livers, considering the amount of wines and liquors drank, and the highly-seasoned curries and meats that are constantly used. All of the American missionaries are total abstainers, and most of the European missionaries; and some of the missionaries (especially among those who are not receiving a stipulated support from America or Europe, and are expecting to live and die in this country) have had their eyes opened as to the perniciousness of the prevalent dietetic habits among Europeans.

There is another cause of mortality among some Europeans in India, which, on account of its delicate nature, I mention with hesitation. In the time of Napoleon, Wellington, with his marvelous influence over England and its armies, laid down the rule, "A soldier has no business to be married." After the Water-

loo, he said, "Not only were their wives an incumbrance, but the army would have been better off without the married soldiers themselves." This spirit has prevailed ever since in the British army. The standing army of English soldiers in India numbers about sixty thousand. The mortality among them in past years, taken all in all, has been large. But how has it come? A regiment in the time of the old "East India Company" came from England to India about a thousand strong. Within eight years nearly all had died. What caused their death? The prevalent diseases of a tropic land? Nay; but the chief causes were syphilis and kindred venereal complaints. This has been the history of many a regiment of celibate soldiers, not only in India, but in some of the fairest lands of the temperate zone. No doubt a free canteen has done much in leading soldiers to "her house whose steps take hold on hell." It would seem that the policy of that successful soldier, Lord Wolseley, in abolishing the canteen from his army, ought to convince British statesmen and generals of the folly of serving liquor rations to soldiers.

But among the English officers and soldiers in India, there are as devoted, self-sacrificing Christians to be found as in any part of the world. Had I time, I should like to tell you of the habits of simplicity and frugality of the poor, hardworking natives, who pay the heavy expenses of the British Government of India, to which I have referred, raise their families, and keep their health to a remarkable extent. But enough for this time. Yours truly,

A. NORTON.

ELLICHPOOR, INDIA.

HOW ANIMALS DOCTOR THEMSELVES.

Broken ribs, says Mr. Lucas, as may be supposed, are of frequent occurrence, and are found not only among land animals, but among the whale tribe, which one would naturally suppose to be removed from the danger of such accidents. A specimen of Hyperoödon, twenty-two feet in length, bore evidence that two of its ribs had been broken, and that, too, after the animal had arrived at maturity. We have seen both the moose and elk with ribs broken and perfectly reunited, and an echidna, or porcupine ant-eater, of Australia, had completely recovered from a fracture of no less than six ribs. One

might imagine that snakes, with their many slender ribs, would be particularly liable to injury; but such does not seem to be the case, although we have met with one which had sustained a dislocation of the vertebral column without apparently more serious results than a permanent crook in the back. Turtles, to whom a broken rib must be a rather serious affair, are not infrequently found with sadly distorted carapaces, showing that, like Lady Jane, they must have been "crushed" at some time. We saw one specimen of Malacodemys palustris, which seemed to have been run over by a wagon when young, and had four ribs and three joints of its spine broken, and yet had recovered completely from these injuries.

Such recoveries as this recall Magendie's remark, that in recovery from sickness "nature does much, good nursing much, doctors devilish little." To have a tail interrupted that should have been continued, is a comparatively harmless accident, and one that not infrequently happens. although sometimes the results are pecul-Gunther figures a pike very much abbreviated and very odd-looking; and a mud-turtle, brought to us last summer, had a tail terminated by a ball nearly an inch in diameter. There may be introduced here the story of the elephant rat, from Algeria, which resembled the ordinary rat, except that its nose terminated in a proboscis nearly an inch in length. The species proved to be the creation of some enterprising French Zouaves, who whiled away their time by grafting the tail of one rat into the nose of another. and when they had united, cut off any required length of proboscis.

Turning from one extremity to the other, there are two cases in which an animal's jaw had been broken,-one an Indian wild hog (Sus cristatus), and the other a small deer. In the first case the union of the fractured parts was complete; while in the second instance the broken edges were still separated, although the bony overgrowth had increased that portion of the jaw to four times its original Not only do orangs break their legs, but it would seem that they occasionally break their heads also, since among various specimens examined, there was one showing an ugly-looking dent in the skull, which must have been caused by some fracture healed long ago without trepanning. All of the above-noted cases were apparently caused by accidents with

which man had nothing to do, except possibly in the case of the three-legged porcupine, but the few succeeding examples illustrate recoveries from gunshot wounds.

One interesting specimen was an orang with a bullet imbedded in its jaw and almost completely hidden beneath newly formed bone. A mountain sheep exhibited a somewhat similar case, having the ball firmly fastened in its ankle. A more peculiar example was related to us by a friend, who extracted from the upper arm bone of a bird a shot which had pierced one side and lodged in the air cavity of the bone. Afterward the hole had completely closed, and the injury would have escaped notice had not attention been called to it by the rattling of the bone. The shoulder-blade of an elk, bearing a partially closed perforation, bore witness to the fact that its owner had escaped death once, only to fall under a second and much later shot. In an incident which deserves special mention, the skull of an elephant had been pierced through and through by a ball, without death having ensued; but this is not so remarkable as it might at first seem, since the course of the ball was through the air cells above the brain cavity, and the wound probably caused nothing more than a severe headache. The conclusion drawn from these varied instances is, to let well enough alone, and in case of injury merely to see that nature is not too much impeded by art.

The warrior ants have regularly-organized ambulances. Latreille cut the antennæ of an ant, and other ants came and covered the wounded part with a transparent fluid secreted in their mouths. If a chimpanzee be wounded, it stops the bleeding by placing its hand on the wound, or dressing it with leaves and grass. When an animal has a wounded leg or arm hanging on, it completes the amputation by means of its teeth. A dog, on being stung in the muzzle by a viper, was observed to plunge its head repeatedly for several days into running water. This animal eventually recovered. A sporting dog was run over by a carriage. During three weeks in winter it remained lying in a brook, where its food was taken to it; the animal recovered. A terrier dog hurt its right eye; it remained lying under a counter, avoiding light and heat, although habitually he kept close to the fire. It adopted a general treatment, rest, and abstinence from

food. The local treatment consisted in licking the upper surface of the paw, which he applied to the wounded eye, again licking the paw when it became dry. Cats, also, when hurt, treat themselves by this simple method of continuous irrigation. M. Delaunay cites the case of a cat which remained for some time lying on the bank of a river; also that of another cat which had the singular fortitude to remain for forty-eight hours under a jet of cold water. Animals suffering from fever treat themselves by the continued application of cold, which M. Delaunay considers to be more certain than any of the other methods.

From the foregoing examples it would seem that animals of very different ranks in the scale of being, practice the "healing art" with great success. Possibly the conditions adapted for restoration of health are more typically represented in lower than in higher life. Be this as it may, we must agree with M. Delaunay and Mr. Lucas, in the opinion that there exist a good many points in animal medicine which are well worthy the study of the human philosopher.—Health.

ANOTHER HUMBUG.

WHILE the writer is willing to admit that there are some "patent medicines" which are really good, so far as medicines can be good, he believes that by far the larger class of quack nostrums, and the so-called physicians, whose names they bear, are unmitigated humbugs. Some of these have been exposed in Good HEALTH in past numbers, and here is another. One S. A. Richmond of St Joseph, Mo., is flooding the country with a four-page advertising sheet, announcing to the world, with a mock piety so common to a certain class of charlatans, his wonderful (?) remedy, "Samaritan Nervine." This sheet contains the likenesses of some twenty-five individuals, of every station in life, residing in all parts of the country, with annexed certificates stating that they had been cured of epilepsy, fits, and nervous diseases of various kinds. It also contains a cut of a magnificent building, with beautifully and artistically laid grounds, this building styled, "Dr.S. A. Richmond's Medical Company's World's Epileptic Institute," with descriptions thereof from basement to fourth story. These glowing descriptions purport to have been written by correspondents, reporters, and editors | following reply :-

of prominent journals published in St. Joseph, St. Louis, and Chicago. On the whole, it is an advertisement calculated to "take," especially with those suffering from the many terrible nervous diseases. Its first article opens with these words,—

"In presenting this Journal to the public, we have no apology to make, feeling assured that it will meet with the co-operation and support of every one who peruses its contents. Coming to the people, as it does, earnestly supported and indorsed by our leading Western journals, eminent lawyers, physicians, ministers of the Gospel, merchants, traders, bankers, and giving innumerable certificates from those who have been cured, it cannot fail to convince the most skeptical of the validity of its profession."

Nevertheless, with all of this and its assumed piety, it failed to convince the writer. He reasoned that if these things were so, prominent men and ministers in St. Joseph would be likely to be cognizant of them. He accordingly addressed an inquiry to the following residents of St. Joseph: a clergyman of one of the leading denominations in the country, the city postmaster, and a private citizen whose testimony the writer has good reason to believe is reliable. Names are withheld, as the communications were of a private character. The clergyman writes thus,—

"Yours came yesterday.... There is a man of the name of Richmond living here who sends all this big pretentious show about 'Samaritan Nervine.' He is not an M. D., and knows nothing of general medicine. I do not know the origin of his nostrum, but have been told he found it here as compounded by one of our city druggists.... He has no Sanitarium or hospital,—no such thing exists here; the picture on his show-bill is of what is known as "The World's Hotel." He has no connection with it. The fact is, in my humble judgment, that gentleman known as 'Dr. Richmond' will make a first class stranger.... I am myself a regularly graduated physician, though not in the practice of medicine, but a pastor as above stated, so I can speak understandingly."

I will give the postmaster's in full. It is as follows:—

"In reply to yours of the 17th inst., will say that Dr. S. A. Richmond of this city is the proprietor and manufacturer of a medicine which has gained a great reputation for the cure of epilepsy and other nervous diseases.

"The Dr. has no 'Institution' here for the treatment of patients, but I am led to believe from many cases I have heard of, and numerous testimonials I have seen, that his 'Nervine,' as he calls it, is a cure for epilepsy. In fact, I know of some instances, through letters coming to me as postmaster, where cures have been made. The Dr. is himself something of a humbug, and I believe was never a physician in any sense, but he has made thousands out of his medicine."

The citizen above alluded to sends the following reply:—

"In reply to yours, will say, Dr. Richmond treats no patients himself; has no Institute here, merely a laboratory. His medicines are said to relieve epilepsy and nervous diseases."

Thus we have the testimony of three different individuals of different pursuits in life. They agree as to the main feature; viz., that Dr. Richmond is an unmitigated humbug. Any intelligent individual who knows aught of medicine, could make a preparation which would temporarily relieve nervous diseases in their different forms. This is all this great(?) physician has done at most. Doubtless he does "the best he can," and "as well as he knows how;" but that is no excuse why people should suffer at his hands, or at the hands of any charlatan, quack, or inexperienced physician. I submit this to the reading public, hoping it will deter some from falling under the wiles of ignorant and unsophisticated quacks "in whom [not only] is no help," but whose lack of experience may cost valuable M. C. WILCOX. lives.

THE CLAY-EATING HABIT.

Among the extraordinary passions for eating uncommon things is to be reckoned that which some tribes of people exhibit for eating earth or clay. Though not so directly or immediately poisonous as arsenic, the swallowing of clay, with our ordinary European constitutions and habits, could scarcely be otherwise than injurious to the bodily health; but in Western Africa the negroes of Guinea have been long known to eat a yellowish earth, there called caouac, the flavor or taste of which is very agreeable to them, and which is said to cause them no inconvenience. Some addict themselves so excessively to the use of it, that it becomes to them a kind of necessity of their lives, -as arsenic does to the Styrian peasant, or opium to the Theriaki,-and no punishment is sufficient to restrain them from the practice of consuming it.

When the Guinea negroes used in former times to be carried as slaves to the West India Islands, they were observed to continue the custom of eating clay; but the caouac of the American islands, or the substance which the poor negroes attempted in their new homes to substitute for the African earth, was found to injure the health of the slaves who ate it. The practice, therefore, was long ago forbidden, and has probably now died out in

our West India colonies. In Martinique, a species of red earth or yellowish tufa was still secretly sold in the markets in 1751; but the use of it has probably ceased in the French colonies also. Whether the custom still exists in Cuba and Brazil, where the slave trade is not yet entirely extinguished, we do not know. Recent information upon the subject is wanting, not only from these countries, but also from the Western coast of Africa.

In Eastern Asia a similar practice prevails in various places. In the island of Java, between Sourabaya and Samarang, Labillardière saw small square reddish cakes of earth sold in the villages for the purpose of being eaten. These have been found by Ehrenberg to consist for the most part of the remains of microscopic animals and plants, which had lived and been deposited in fresh water. In Runjeet Valley, in the Sikkim Himalaya, a red clay occurs, which the natives chew as a cure for the goitre. The chemical nature of this Indian clay has not been examined.

In Northern Europe, especially in the remote northern parts of Sweden, a kind of earth known by the name of bread-meal is consumed in hundreds of cartloads, it is said, every year. In Finland a similar earth is commonly mixed with the bread. In both these cases the earth employed consists for the most part of the empty shells of minute infusorial animalcules, in which there cannot exist any ordinary nourishment. In north Germany also, on various occasions where famine or necessity urged it, as in long protracted sieges of fortified places, a similar substance, under the name of mountain meal, has been used as a means of staying hunger.

In South America, likewise, the eating of clay prevails among the native Indians on the banks of the Orinoco, and on the mountains of Bolivia and Peru. The most precise and detailed accounts we possess on this subject, in regard to the Indians of the Orinoco, is given by Humboldt. In north latitude 70° 8′, and west longitude 67° 18′, he met with the tribe of the Otomacs, of which he writes as follows:—

"The earth which the Otomacs eat is an unctuous, almost tasteless clay—true potter's earth—which has a yellowishgray color, in consequence of a slight admixture of oxide of iron. They select it with great care, and seek it in certain banks on the shores of the Orinoco and Meta. They distinguish the flavor of one kind of earth from that of another, all kinds of clay not being alike acceptable to their palate. They knead this earth into balls measuring from four to six inches in diameter, and bake them before a slow fire, until the outer surface assumes a reddish color. Before they are eaten, the balls are again moistened. These Indians are mostly wild, uncivilized men, who abhor all tillage. There is a proverb current among the most distant tribes living on the Orinoco, when they wish to speak of any thing very unclean,—'So dirty that the Otomacs eat it.'

"As long as the waters of the Orinoco and Meta are low, the people live on fish and turtles. They kill the former with arrows, shooting the fish as they rise to the surface of the water, with a skill and dexterity that has frequently excited my admiration. At the periodical swelling of the rivers, the fishing is stopped, for it is as difficult to fish in deep river water as in the deep sea. It is during these intervals, which last from two to three months, that the Otomacs are observed to devour an enormous quantity of earth. We found in their huts considerable stores of clay balls piled up in pyramidal heaps. An Indian will consume from three-quarters of a pound to a pound and a quarter of this food daily, as we were assured by the intelligent monk, Fray Ramon Bueno, a native of Madrid, who had lived among these Indians for a period of twelve years. According to the testimony of the Otomacs themselves, this earth constitutes their main support in the rainy season. They eat, however, in addition, when they can procure them, lizards, several species of small fish, and the roots of a fern. But they are so partial to clay, that even in the dry season, when there is an abundance of fish, they still partake of some of their earth-balls, by way of a bonne bouche after their regular meals.

"These people are of a dark copperbrown color, have unpleasant Tartar-like features, and are stout, but not protuberant. The Franciscan, who had lived among them as a missionary, assured us that he had observed no difference in the condition and well-being of the Otomacs during the periods in which they lived on this clay. The simple facts are therefore as follows: The Indians undoubtedly consume large quantities of clay without injuring their health; they regard this earth

as a nutritious article of food,—that is to say, they feel that it will satisfy their hunger for a long time. This property they ascribe exclusively to the clay, and not to the other articles of food which they contrive to procure from time to time in addition to it. If an Otomac be asked what are his winter provisions,—the term in the torrid parts of South America implying the rainy season,—he will point to the heaps of clay in his hut."

Although the mouths of the Orinoco are no great distance either from the West India Islands or from the colonies of Guiana, this custom of the Otomacs differs so much from that of the Guinea negroes that we can scarcely believe it to have been borrowed by them from any runaway negro slaves. It is more probably of old date, if not indigenous to the country.

This is rendered more likely by the fact that a similar practice prevails toward the south-west, in the hill-country of Bolivia and Peru. In describing the various articles he saw exposed for sale in the provision-markets of La Paz, on the Eastern Cordillera, Dr. Weddell says: "Lastly, the mineral kingdom contributes its share to the Bolivian markets, and it is sufficient to see the important place which this contingent occupies on the stalls of La Paz, to be satisfied that the part it plays is deserving of much attention. The substance I allude to is a species of gray-colored clay, very unctuous to the touch, and distinguished by the name of palsa. The Indians, who are the only consumers of it, commonly eat it with the bitter potato of the country, Papa amargas. They allow it to steep for a certain time in water, so as to make a kind of soup or gruel, and season it with a little salt. It has the taste of ordinary

"At Chiquisaca, the capital of the State, as I was informed, small pots are made of an earth called *chaco*, similar to the pahsa of La Paz. These are eaten like chocolate. I was told of a senorita who had killed herself by an extreme fondness for these little pots, but it appears that the moderate use of pahsa is followed by no bad effects. The chemical examination of these substances shows that they cannot in any way contribute to the nourishment of the body."

The eating of certain varieties of earth or clay may therefore be regarded as a very extended practice among the native

inhabitants of the tropical regions of the globe. It stays or allays hunger in some unknown way, stilling probably the pain and craving to which hunger gives rise. A fondness even is often acquired for it, so that it comes at last to be regarded and eaten as a dainty .- Chemistry of Common Life.

THE GARDEN. WHEN Epicurus to the world had taught That pleasure is the chiefest good, [stood), (And was, perhaps, i'th' right, if rightly under-His life he to his doctrine brought, [sought, And in a garden's shade that sovereign pleasure Whoever a true Epicure would be, May there find cheap and virtuous luxury. Vitellius his table which did hold As many creatures as the ark of old,-That fiscal table to which every day All countries did a constant tribute pay,-Could nothing more delectable afford Than Nature's liberality-Helped with a little art and industry-Allows the meanest gardener's board. The wanton taste no flesh nor fowl can choose, For which the grape or melon it would lose, Though all th' inhabitants of earth and air Be listed in the glutton's bill of fare. Scarce any plant is growing here, Which against death some weapon does not bear. Let cities boast that they provide

-Cowley.

TESTIMONY OF MUSONIUS ON FLESH EATING.

For life the ornaments of pride;

But 'tis the country and the field

That furnish it with staff and shield.

Musonius was a Stoic writer of great repute with his contemporaries, son of a Roman Eques, was born at Volsinii (Bolsena), in Etruria, at the end of the reign of Augustus. He was banished by Nero, who especially hated the professors of the Porch; but by Vespasian he was held in extraordinary honor when the rest of the philosophers were expelled from Rome. The time of his death is uncertain. He was the author of various philosophical works, which are characterized by Suïdas as "distinguished writings of a highly philosophic nature," who also attributes to him (but on uncertain evidence) letters to Apollonius of Tyana. We are indebted for knowledge of his opinions to a work (of unknown authorship) entitled "Memoirs of Musonius the Philosopher." It is from this work that Stobæus (Anthologion), Aulus Gellius, Arrian, and others seem to

have borrowed, in quoting the dicta of the great Stoic teacher :-

"As we should prefer cheap fare to costly, and that which is easy to that which is hard to procure, so also that which is akin to man to that which is not so. Akin to us is that from plants, grains, and such other vegetable products as nourish us well; also what is derived from (other) animals-not slaughtered, but otherwise serviceable. Of these foods, the most suitable are such as we may use at once without fire, for such are readiest to hand. Such are fruits in season, and some herbs, milk, cheese, and honeycombs. Moreover such as need fire, and belong to the classes of grains or herbs, are also not unsuitable, but are all, without exception, akin to man.

"Eating of flesh-meat he declared to be brutal, and adapted to savage animals. It is heavier, he said, and hinders thought and intelligence; the vapor arising from it is turbid and darkens the soul, so that they who partake of it abundantly are seen to be slower of apprehension. man is [at his best] most nearly related to the gods of all beings on earth, so also his food should be most like to that of the gods. They, he said, are content with the steams that rise from earth and waters, and we shall take the food most like to theirs, if we take that which is lightest

and purest.

"So our soul also will be pure and clear, and, being so, will be best and wisest, as Heracleitus judges when he says the clear soul is wisest and best. As it is, said Musonius, we are fed far worse than the irrational beings; for they, though they are driven fiercely by appetite as by a scourge, and pounce upon their food, still are devoid of cunning and contrivance in regard to their fare, being satisfied with what comes in their way, seeking only to be filled and nothing further. But we invent manifold arts and devices the more to sweeten the pleasure of food, and to deceive the gullet. Nay, to such a pitch of daintiness and greediness have we come, that some have composed treatises, as of music and medicine, so also of cookery, which greatly increase the pleasure in the gullet, but ruin the health. At any rate, you may see that those who are fastidious in the choice of foods are far more sickly in body; some even, like craving women, loathing customary foods, and having their stomachs ruined. Hence, as good-for-nothing steel continually needs

sharpening, so their stomachs at table need the continued whet of some strongtasting food. . . . Hence, too, it is our duty to eat for life, not for pleasure (only), at least if we are to follow the excellent saying of Socrates, that, while most men lived to eat, he ate to live. For surely no one who aspires to the character of a virtuous man, will deign to resemble the many, and live for eating's sake as they do, hunting from every quarter the pleasure which comes from food.

"Moreover, that God, who made mankind, provided him with meats and drinks for preservation, not for pleasure, will appear from this. When food is most especially performing its proper function in digestion and assimilation, then it gives no pleasure to the man at all, yet we are then fed by it and strengthened. Then we have no sensation of pleasure, and yet this time is longer than that in which we are eating. But if it were for pleasure that God contrived our food, we ought to derive pleasure from it throughout this longer time, and not merely at the passing moment of consumption. Yet, nevertheless, for that brief moment of enjoyment we make provision of ten thousand dainties; we sail the sea to its furthest bounds; cooks are more sought after than husbandmen. Some lavish on dinners the price of estates, and that though their bodies derive no benefit from the costliness of the viands.

"Quite the contrary; it is those who use the cheapest food who are the strongest. For example, you may, for the most part, see slaves more sturdy than masters, countryfolk than towns-folk, poor than richmore able to labor, sinking less at their work, seldomer ailing, more easily enduring frost, heat, sleeplessness, and the like. Even if cheap food and dear strengthens the body alike, still we ought to choose the cheap; for this is more sober and more suited to a virtuous man; inasmuch as what is easy to procure is, for good men, more proper for food than what is hard—what is free from trouble than what gives trouble-what is ready than what is not ready. To sum up in a word the whole use of diet, I say that we ought to make its aim health and strength, for these are the only ends for which we should eat, and they require no large outlay."

—Wine has been well styled "the devil's water-power." Without it much of the machinery of evil would stand still.

DISCUSSING AILMENTS.

If any one will sit apart from two or more visitors, and listen to the conversation, it will be found in most cases to turn upon the physical ailments of the various members of their families. Only a few days ago, while sitting with a friend, a woman called to see her—a very pleasantfaced, neatly-attired woman,-and she talked for an hour or more of Jane, who had had "rheumatiz" all winter, and Sarah, who had suffered dreadfully from an ingrowing toe-nail, and John, who had an epileptic fit, and Jonas, who was suffering from a felon. She said "rheumatiz" so many times that my ears fairly buzzed; and by the time she was through, it was easy to imagine one's self in a hospital. Good and kind soul that she evidently was, when she went out we drew a long breath of relief that so much suffering was ended. The woman was no exception, but a fair representative of a large class, who find so much enjoyment in detailing misfortunes that their "visiting talk," at least, consists almost entirely of such themes. I remember having a visitor once who, according to her own account, had "enjoyed bad health" all her life, and had suffered from every conceivable ailment but yellow fever and small-pox, and she regaled me with the remedies she made use of in each case; and when I had expressed surprise that she had survived so much, she said she felt that she was indeed a "living miracle," and proceeded to tell me about some other party who had been . worse off even than herself, but had died because of not having worn a certain kind of drawing-plaster!

It is possible that the ventilation of our physical ailments has an advantage in prolonging human life, for it is an undeniable fact that persons who are always ailing and always talking about their ailments, usually live to the allotted age of man, and are rarely dangerously ill, while people who suffer greatly say the least about their sufferings, and realize that it is indelicate to disclose and display their hodily meladies

bodily maladies.

Undoubtedly the discussion of one's ailments is largely a habit, and if the retailer of such details appreciated how much he or she violated good sense and good taste by so doing, the habit would be abandoned. In this age of books and journals of all sorts, there are inexhaustible sources for thought and talk that carry us outside ourselves, and which put us into sympathy

with movements and measures that lift us into a new world. Variety and change for the mind are as necessary as the same for the body, and insanity among country women, particularly farmers' wives, is largely attributed by physicians to the humdrum life led by them; the same thing to-day, to-morrow, and forever, so far at least as their mental life is concerned. It is ruinous to women, particularly those who are not well bodily, to be deprived of mental relief. Deprived is not the word to use; it is not so much deprivation as a failure to seize opportunities. I have a friend in Northern Pennsylvania, who quite recently set herself thinking what she could do to brighten up the winter intellectually for herself and friends, and after casting about among her resources, ended by opening her parlor every morning for a week with a course of lectures on popular health topics,-how to live healthfully and happily, and grow old beautifully. She engaged a lady physician to deliver the lectures, and sold enough tickets to defray the expenses. The lecturer charmed every woman who heard her, and her ideas, most pleasantly presented, aroused her auditors to new thoughts and discussion, and the town in which she lives was greatly enlivened and brightened up. This same friend, who is one of the brightest of women, and the head of a large family, with many cares, makes a specialty of certain lines of historical biography. For instance, while I was with her the death of Gambetta occurred, and she mourned as if she had been his personal friend. For some time she had made it a point to cut out from newspapers everything that referred to Gambetta, so that she had not only in her scrap book, but at her tongue's end, a vast amount of information concerning the dead statesman. She had previously made a similar collection concerning Thiers. And where is there a woman who could not, in some such fashion, make a specialty of something beyond her aches and pains, and those of her friends, with which to refresh her mind in carrying it out of the dreary grooves of every-day toil! The only difficulty in the way is to begin. At all events, "swear off" on the ailment talk, and convince yourself, beyond all doubt, that people who are worth talking with care a great deal more about what you think of current events than they do of the condition of your lungs, your stomach, or your bunions. - Mary Wager-Fisher, in Christian Union.

BREATH GYMNASTICS.

THE art of breathing is, in the opinion of *Chamber's Journal*, too much overlooked. Though an act of nature, it can be influenced by the will. Persons, therefore, may be trained to breathe properly, that is, to such breathing as will thoroughly oxygenate the blood.

It has been suggested that there is room for what might be fitly termed breath gymnastics,—to draw in long and full breaths, filling the lungs full at every inspiration, and to acquire the habit of full

breathing at all times.

The habit of full breathing has a direct effect in supplying the largest possible amount of oxygen to the blood, and more thoroughly consuming the carbon, and so producing animal heat. It has also the very important effect of expanding the chest, and so contributing to the vigor of the system.

The breath should be inhaled by the nostrils as well as the mouth, more especially while out of doors, and in cold weather. That has partly the effect of a respirator in so far as warming the air in its passage to the delicate air-cells, and in also rendering one less liable to catch cold.

The full inspiration is of so much importance that no proper substitute is to be found for it in shorter though more rapid breathing. In short breathing a large portion of the air-cells remains stationary, the upper portion of the lungs being enlarged in receiving and discharging a small portion of air.

Profound thought, intense grief, and other similar mental manifestations have a depressing effect on inspiration. The blood unduly accumulates in the brain, and circulation in both heart and lungs becomes diminished, unless, indeed, there

be feverishness present.

An occasional long breath, or deep-drawn sigh, is the natural relief in such a case,—nature's effort to provide a remedy. This hint should be acted on and followed up. Brisk muscular exercise in the open air, even during inclement weather, is an excellent antidote of a physical kind for a "rooted sorrow."

And the earnest student, instead of tying himself to his desk, might imitate a friend of the writer of this, who wrote and studied while on his legs. Pacing his room, portfolio in hand with paper attached, he stopped as occasion required to pen a sentence or a paragraph.

Breathing is the first and last act of

man, and is of the most vital necessity all through life. Persons with full, broad, deep chests naturally breathe freely and slowly, and large nostrils generally accompany large chests.

Such persons rarely take cold, and when they do they throw it off easily. The opposite build of chest is more dis-

posed to lung disease.

The pallid complexion and conspicuous blue veins, show that oxygen is wanted, and that every means should be used to

obtain it.

Deep breathing also promotes perspiration, by increasing the circulation and the animal warmth. Waste is more rapidly repaired, and the skin is put in requisition to remove the used materials. Many forms of disease may be thus improved, and more vigorous health enjoyed.

HOW TO BE YOUNG AT EIGHTY.

In a discourse on this subject, Rev. Dr. Collyer of New York, gives these hints to the candidate for a hale, hearty, and happy old age:—

"The first element to be considered lies beyond your reach and mine, in the homes where you and I were born and nurtured. One great reason why I never had a really sick day in my life was that I was born and nurtured in a sweet little home, where we lived on oatmeal and milk, and brown bread with butter once a week, potatoes and a bit of meat when we could catch it, and then oatmeal again. So I don't know to-day as I have a system or a constitution or a digestion at all; I am never conscious of such a thing. Hence I say we must go back to the parents for the first answer to our question. Thousands of young men come to such cities as this from the Green Mountains or from New Hampshire, or Maine, with just such a constitution as mine. They have within them all the conditions for a long, sweet life. They can use their years wisely and well, write at the end of each one, 'Value received,' or they can overdraw the account, as many do, God help them! Instead of saying at fifty, 'I am young yet,' they will say at forty, 'I am old indeed.' They are so ambitious to get on, some of them, that they use up two days in one, and waste their vital powers. They ride when they ought to walk down town, and they take 'a little something,' as they say, to restore their lax energies, for which

they have to chew a clove or a coffee berry. I am told. They are overdrawing their account, I say, and some day nature and the grace of God will shut down on them. Those who do differently keep a good digestion, stay young and buoyant, love good, sweet company, and are not ashamed to look their mothers and sisters in the eye or kiss them. Another secret that must be known to be young at eighty is, that you must keep faith in the common manhood and womanhood and in the advancing progress of the day. Never say that the past was better than to-day is; read the new books, understand all the new ideas; and keep your faith in God and man and in the victory of good over

Household Dirt.—A writer in the London Times calls attention to a much-neglected subject in the following paragraph:—

"The dirt of an ordinary house, the dirt which may be wiped from the walls, swept off the furniture, and beaten out of the carpets, would be sufficient, if it were powdered in the form of dust over the patients in the surgical wards of a great hospital, to bring all their wounds into a condition which would jeopardize life. It cannot be supposed that such dirt is innocuous when it is breathed or swallowed, and it certainly possesses the property of retaining for long periods the contagious matter given off by various diseases. Instances without number are on record in which the poison of scarlet fever, long dormant in a dirty house, has been roused into activity by some probably imperfect or bad attempts at cleansing.

"A Little Higher than Tadpoles."—
Thomas Carlyle happened to be present when a number of so-called philosophers and scientific men were airing their opinions. The doctrine of "evolution" had been asserted with much confidence; and under the supposition that he was a sympathizer, and not at all fettered by religious scruples, he was challenged to deliver his opinion as to this modern theory of the origin of man. Gathering himself up, and speaking in a tone that silenced laughter, Carlyle replied: "Gentlemen, you make man a little higher than the tadpoles. I hold, with the prophet David,—'Thou madest him a little lower than the angels,'"



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SHAPING THE FUTURE.

We shape ourselves the joy or fear Of which the coming life is made, And fill our future atmosphere With sunshine or with shade.

The tissue of the life to be
We weave with colors all our own,
And in the field of destiny
We reap as we have sown.

Still shall the soul around it call
The shadows which it gathered here,
And painted on the eternal wall,
The past shall reappear,

Think ye the notes of holy song On Milton's tuneful ear have died? Think ye that Raphael's angel throng Has vanished from his side?

Oh, no! we live our life again;
Or warmly touched, or coldly dim,
The pictures of the past remain—
Man's works shall follow him.

—J. G. Whittier,

SKETCHES OF TRAVEL, NO. 6.

BY MRS. E. E. KELLOGG.

PARIS.

LEAVING Southampton by the evening boat, we spent one night in crossing that ' strip of sea," the English Channel, and found ourselves the next morning in the port at Havre, the fogs of England far behind us, the radiant sunshine and blue sky of "La belle France" above us, and a peculiarly "foreign" aspect to our surroundings. The strangeness of hearing for the first time all conversation carried on in a foreign tongue is quite bewildering, and we could sympathize somewhat with the feelings of the poor Englishman who, being on a visit to the French capital, was exceedingly perplexed and annoyed because every one spoke French of which he could understand nothing. Awaking very early one morning, and hearing a chanticleer crow, he exclaimed, "Thank goodness, there's some English at last!" A person possessed of some previous knowledge of French, however, soon becomes able to comprehend something of the rapid current of words which flow together in one al-most undistinguishable stream from the lips of the blue-bloused porters and guards, and even

one quite unfamiliar with the language need experience no great difficulty in traveling on the continent, since, in these days of progress and travel, English-speaking guides and officials are to be found in almost every place where their services would be required.

The Frenchman's love of ease and elegance at once impresses itself upon our mind as we enter the beautifully cushioned and tastefully decorated first-class compartment of the train for Paris, and find a most ingenious foot-warmer, in the shape of a long, flat, copper can filled with hot water, placed before each seat for the comfort of the passengers. The proverbial propensity for economy is also to be remarked in the two-story railway coaches.

A ride of a few hours through upper Normandy with its picturesque old towns and charming landscapes, past Rouen with its treasures of antiquity and its memories of Joan of Arc, and along the shore of the winding Seine, in which scores of French peasant women were engaged in doing their weekly washings, standing knee-deep in the water, and rubbing the clothes on a broad flat stone, brought us to Paris.

London has been styled the "world's work-shop," and Paris the "world's drawing-room." Its buildings of white limestone, its clean, smooth pavements, its broad boulevards bordered with double rows of rare shade trees, with parks and gardens at intervals, its palaces, fountains, arches, and columns,-all combine to make it the most beautiful city in Europe. And quite in keeping with the drawing-room idea is the showy, dazzling, artificial life of its people, with their smiling faces and charming courtesies. Night and day its streets seem channels of gaiety and pleasure, along which the current of life runs as smoothly and brightly as does the water in the Seine near by. But appearances are deceptive; "behind the scenes" are hints of dark tragedies and pictures of sin, suffering, wretchedness, and woe. Its fair white dwellings and beautiful streets are but the whited sepulchers which cover a multitude of

Upon arriving at our hotel, fatigued and hungry after our journey, we repaired at once to the dining-room for refreshment. But a dinner at a Parisian hotel is a formidable affair. There is a great display of clean, polished silver, bright china, and a long succession of courses, but with all little satisfaction to a hygienist. On the present occasion we were almost doomed to fast, for reasons at once apparent to the reader when we say that we were served to

snail soup, veal and fried potatoes, fish with caper sauce, goose liver and mushrooms, stewed fowl, roast beef, green peas, puffs, hot milk, and one-half a stewed pear, in ten courses, and not a morsel of the "staff of life" included, although bread is so plentiful in Paris that it is sold by the armful, if we may judge from the number of matrons in snowy white caps and aprons seen upon the streets with arms full of long rolls of bread about the size of one's wrist, and varying from one foot to a yard in length. We might add in parenthesis that our first table d'hote in Paris was our last, and that we afterward patronized a restaurant, where excellent whole-wheat bread, pure milk, and luscious fruit were plentiful.

NOTRE DAME.

The historic church of Paris is the Notre Dame, which is as old as Christianity in France, and even before that time was a pagan temple. The edifice is built in the form of a Latin cross, and its front is profusely adorned with scriptural subjects. It is a most magnificent pile, with its marble floors, columns, arches, and rose-colored windows flooding everything within with a soft light; but amid all its loveliness we could almost hear, in fancy, the Te Deums chanted within its walls over the cruel murder of the victims of the St. Bartholomew massacre.

When, during the frenzy of the Great Revolution, the National Convention decreed the abolition of the Catholic faith and the establishment of the religion of Reason, the cathedral of Notre Dame was named the Temple of Reason, and a common peasant woman was borne in state through the streets of Paris, and enthroned here as Goddess of Reason.

Here have been celebrated the coronation ceremonies of French sovereigns, and here their funeral orations have been pronounced. Here Napoleon the Great placed the golden crown of laurels upon his own brow and upon the head of Josephine in the presence of the pope and one of the most brilliant assemblies ever gathered in the French capital.

Hidden within the sacristy of the church, and displayed upon the payment of a half franc, are the gold and silver utensils used in the great ceremonies of the church and the gorgeous vestments of her priests and bishops. A piece of the true (?) cross and a pretended part of the crown of thorns, said to have been purchased in the East by St. Louis himself, are among the relics shown.

HOTEL DES INVALIDES.

Nearly everything in Paris savors of her great hero, Napoleon. The magnificent marble Arch of Triumph, in the beautiful Champs Elysees, the grandest avenue in the world, was built to commemorate his victories; and that mighty shaft, the Column Vendome, an imitation of Trajan's column at Rome, was erected as an imperial monument by him. It is covered with a bronze coating made from the cannon he captured from the Austrians in the campaign of 1805, and adorned with bas reliefs commemorating his victories over that nation. A statue of the Emperor in the costume of a Cæsar surmounts the Column, which is one hundred and thirty-five feet in height. Strange to say, though the Column was hurled from its base by the communists in 1871, and its fragments carried to various parts of the world by relichunting travelers, with but one exception, and that has been duplicated, the parts have all been found and the Column re-erected since the establishment of the Republic.

But in all Paris there is nothing more wonderful than the tomb, in the chapel of the Hotel des Invalides, prepared as a last resting-place for the great Conqueror. The Hotel des Invalides is an asylum for disabled soldiers, and fitting, it would seem to be, that he whose greatest deeds were of strife and blood-shed should rest here among the old warriors of his beloved France. The chapel of the hospital is a majestic edifice, surmounted by an enormous gilded dome, rising three hundred and twentythree feet above the ground. The interior is as gorgeous as marble and gold, light and shade, form and color can make it. A superb high altar, with a canopy of gilt supported by four columns of Egyptian marble, and flooded with the rosy light from the stained windows above and on either side of it, forms a beautiful background for the balustrade of pure white marble that incloses the large, circular, open crypt in the center of the chapel, directly be-neath the magnificent dome. The walls of the crypt are of polished granite, on which are in-scribed the names of Napoleon's great victories. In front of each of the pillars around its circumference stands a beautiful marble statue, keeping silent sentinel about the massive sarcophagus of Finland granite containing the remains of the great hero, which were brought from St. Helena in 1861 with great pomp and solemnity. Between the pillars of the crypt hang the tattered battle-flags borne in many a fierce conflict. A mosaic floor, with a marble wreath of laurels, surrounds the tomb whose only inscription is the simple letter N. upon one side. The entrance to the crypt is guarded by a bronze caryatid on either side, one holding a crown and sword of gold, the other with a globe crowned with a cross and a golden scepter,-giant wardens watching the tomb and keeping the sword and scepter while the Emperor sleeps. Over the entrance door, on a tablet, are Napoleon's own words, "I desire that my ashes may repose upon the banks of the Seine, in the midst of the French people I have loved so well."

A FREAK OF NATURE.—A strange and most remarkable freak of nature occurred in New Mexico. It is a root of a pinion tree, knotted and twisted, but forming a perfect resemblance to two human beings standing face to face, with arms clasped and hands extended. It is no fanciful resemblance, but the features—ears, eyes, nose, mouth, arms, legs, and body—of each are absolutely perfect.

LESSONS FROM MAINE.

BY JULIA COLMAN.

AFTER having so thoroughly indorsed the good work in Maine as we did in our last article, we wish to make some kindly criticisms, and draw some lessons, showing how we may improve by the example, as well as improve upon the precedent. This may seem a little assuming, inasmuch as no other State has yet been able to approach the record of Maine; but if we understood the philosophy of the subject as thoroughly, and acted in the same commonsense manner, as we do in other new enterprises, we ought to do not merely as well as Maine, but better.

There is one peculiarity in this work, which we have largely failed to note : By her geographical locality, this Northeastern State was farther beyond the sphere of our immediate observation than most of the other States. Neither our business nor our pleasure called us to travel through its borders, so that we were very little acquainted with the methods of work pursued previous to the passage of the prohibitory law. When that was passed, Maine came into the temperance horizon as a bright particular star, and everybody was taking odservations. first question usually asked was, "How does it succeed?" To cursory observers it seemed so easy a solution that they were eager to improve by it. They had only to pass a prohibitory law, and, presto! all the liquor shops would disappear. Of course, if the people could not get alcoholic liquors, they could not drink them. So the most they had to do was to get a law. The whole question was in a nut-shell.

To the average American mind the idea of using law as a help in any great enterprise, is both familiar and attractive, and it has been used to good effect. But laws are made by majorities, and legislators do not like to make laws which their constituents will not execute. If the majority of voters can be reached by arguments sufficiently strong to make them give, now and then, a vote for temperance, and so make a success of the effort to push through a prohibitory law, that is still a very different condition of things from having said majority made up of thoroughly earnest temperance men who understand and love the law well enough to work for it, and to fight it through to a successful issue.

For many years there had been no small amount of temperance education going on in Maine. The people discussed the nature and effects of alcoholic liquors. They were working for temperance, pure and simple, without direct reference to prohibition, and therefore the work was more thorough, and it made better workers. Some of the leading men went practically into Bands of Hope; and there, as best they could with the help they had, they taught the boys the nature and effects of alcoholic liquors; and these boys, when grown, made most effective voters, legislators, editors, ministers, clerks, journalists, and other responsible actors in the drama; and wonderfully effective they were. It was quite a different education

from any that has been given the voters in any State where they have made prohibition a main object, or nearly so, from the first, of their active work. Their aim has been to get voters, not to educate them, much less to educate intelligent

temperance workers.

This arose from a deficiency of temperance philosophy. The work degenerated into crying, "We'll make them stop!" Even the people of Maine were self-deceived in this respect at last. They realized so much help from the execution of the law that they deified it, and cried out to all inquirers, "Get the law! get the law!" not stopping to think that it makes a deal of difference how it is obtained; for the law must be the embodiment of the ideas of those that make it; otherwise it will not be executed in a free country, and the execution is the test of the law. So if any other State had passed the "Maine Law," it would not have given them the same results as it did in Maine, unless it had the same conviction and intelligence back of it. So it happened that of the twelve States that followed in the wake of Maine, at least so far as to pass a prohibitory law, not one of them kept and executed it. Maine herself lost it for one year, but regained it, thereby showing her superior vitality-the strength of the convictions of her people.

It does not seem to us, then, that we can improve upon the example of Maine by hurrying on to the passage of a prohibitory law with less preliminary education than she had. Indeed, most States would want more to make up for the want of a Neal Dow, hitherto developed in no other State. And perhaps even this is wisely ordered by Providence, who will have all men to be saved by a voluntary acceptance of the truth, by a willingness to see, and an intelli-

gent acquaintance with its principles.

There is a little scientific fact that might come in just here, to show how easily God could prohibit. Alcohol is made by the fermentation of sweet liquids; and in order to produce alcohol the liquid must be between fifty and eighty degrees Fahrenheit. Below fifty degrees, the liquid molds, and produces a bitter principle, but no alcohol. Above eighty degrees the sugar turns at once into acetic acid, without passing through alcohol as an intervening stage. How easily, it seems to us, that gap might have been closed, or filled up with some other product. And so we think it would have been, had the only need been to put alcohol beyond the reach of man.

But true temperance means much more than that; it means self-denial with regard to hurtful indulgences. It means an intelligent, deliberate putting away of alcohol as hurtful, and it implies committing the individual to all available measures for getting other people to adopt the same principles and practice. Certainly, one of the most prominent of these is withdrawing from the traffic the sanction of the law, and, indeed, preventing the traffic in these poisons as far as possible. But this requires the willing co-operation of many people, and their co-operation is so much more willing and thorough, and their measures are so much more

persistent and effective when they are backed up by intelligence, that it becomes one of the best possible campaign measures to make people thoroughly intelligent as to the nature and ef-

fects of alcoholic liquors.

A very good illustration comes in place just here, showing how Maine might have done much better if her people had known a little When they framed their prohibitory law, they had gone so far as to know that alcohol was the same in its nature in both fermented and distilled liquors; and though this knowledge was not sufficiently general to enable them to make a clean sweep, yet they put it on a progressive footing, so that they were all ultimately taken in, or they were in a fair way to be. At least they did not make any provision for the sale of fermented liquors as necessary ar-Not so with alcohol for medicinal pur-Their education had not extended so far as that. So they made liquor-dealers out of temperance men, some of whom were ruined by the trust, supposing that the liquor was a panacea for the ills to which flesh is heir. So they had the anomaly of towns where, other liquor stores being closed rigorously, any one could go into the drug store and get a drink of any kind of liquor by paying 25 cents and saying nothing about it.

Of course that was better than getting it for five or ten cents a drink, and some anomalies were to be expected in a new departure of so radical a nature; but the great difficulty was that the people, expecting the law to do everything, committed themselves to it just as adopted, and to the defense of their agents, and they did not go on to learn by means of their studies, whether they might ultimately dispense with the stuff even as a medicine. This left the very seeds of the evil untouched; for the stronghold of liquor-drinking lies in the medical ques-So while the next step in Maine has long been the temperance education of the doctors, and the medical education of the people as to the hurtfulness of alcohol as a medicine, they have done nothing about it, and they have been exceedingly difficult of approach on that sub-We might have supposed they would see this when the very dangerous attack was made upon their prohibitory law two or three years ago, by endeavoring to get permission for all druggists to sell, or something of that kind. But even then they did not seem to awake to the value of intelligence in that line; and what little is doing now is apparently done as a result of outside influences.

Temperance is eminently and continually a progressive work. We shall not see it "finished up" in this nor in the next century. It requires much education to make it permanently successful, and educatory work is necessarily slow. So we think we could improve on the Maine problem by putting in more education, rather than by dropping what was already in progress when the prohibitory law was enacted. Though the latter was not literally true in

Though the latter was not literally true in Maine, yet the tendency was in that direction. The flourishing Bands of Hope, instead of being encouraged for the good they had done and

the still greater good yet in their power to do, were more and more neglected, the people thinking and saying that there was no need of teaching the children temperance, if they could not get the alcoholic liquors, apparently forgetting that upon these very children would rest the responsibility of keeping up and executing the very law upon which all depended. The suicidal plea of ignorance was thus made a double-edged sword, saying beforehand that it is of little use to educate the children while the dram shops are open, for they will educate the children down faster than we can educate them up; and afterward, that they do not need education, for they will not be tempted.

They are now doing something in Maine in the educational line, and the outlook is hopeful; but almost any State might improve on her past record in this respect. Even those who make prohibition their main hope, could hardly do better campaign work than to marshal the children wherever they can find them, not waiting even for normal schools, nor school boards, and teach them systematically and thoroughly, by catechisms, black-board lessons, object lessons, charts, and various other methods, the subtle nature and the direful effects of the use of al-

coholic liquors.

"TWICE BLESSED."

"It blesses him that gives and him that takes."

A WEALTHY Dutch merchant had an only daughter whom he loved beyond everything with an almost idolatrous affection. Whatever she wished, with regard to dress, jewels, and luxuries of all sorts, he immediately procured for her; and if Europe could not supply it, he sent for it to India. Her rooms were the prettiest in the house, filled with the choicest artistic gems, while her balcony glowed with rare and fragrant flowers, which a princess might have coveted for her con-

servatory.

Yet in the midst of all this indulgence and profusion the young girl was visibly fading away. She shrank from the open air, and feared that the least breath of wind would be fatal. Sometimes, in the warmest weather, she would venture on a drive in a close carriage, but she took no pleasure in it. All her interest and spirit were gone, and her complaint was every day taking some new form. One imaginary ailment was succeeded by another. Her whims and fancies were endless, but could never be satisfied, because what she wished for to-day would weary and disgust her to-morrow. She often thought of death; but the prospect filled her with terror, and her misery seemed only to be increasing.

The most celebrated doctors in vain exerted all their skill for her recovery. Her father would willingly have sacrificed his wealth to save her. All was powerless.

The girl was dying.

In the same city was a physician whose practice was almost exclusively among the poor. He devoted himself to them with indefatigable ardor. Many rich people spoke of him with haughty disdain and contempt, because he severely condemned their indolence and selfishness. Nevertheless, the fame of some wonderful cure which he had accomplished would sometimes make its way into fashionable circles. He was said to be extremely eccentric and arbitrary,—"quite an original genius."

When this strange doctor was suggested to the anxious father as a last resource, he at first shook his head, and thought it would be vain to consult one who practiced in so different a sphere. Still, to leave nothing undone, he soon after consented to call in "the poor peo-

ple's doctor."

He told him the whole history of his daughter's illness, and the treatment hitherto followed, and then led him to

the invalid's room.

The doctor examined her, and asked her numerous questions, which she answered with the utmost languor and indifference. He then led her several times round the room, but she soon sank exhausted into her easy chair.

When they had left her, the father asked the doctor in a voice of intense

anxiety if he had any hope.

"Certainly," said the doctor, "but my prescriptions must be strictly followed."

"What then do you prescribe, doctor?"

"I prescribe in the first place a plain, dark, simple walking dress, without train or flounces—in fact, the plainest and simplest that can be made, and a bonnet to correspond. Have this costume made for your daughter to-day; and to-morrow at ten o'clock I will call and take her out walking."

"Out walking!" exclaimed the father, lifting up his hands in astonishment. "It is more than a year since she has been

out walking.'

The doctor shrugged his shoulders, saying, "If you do not follow my advice, I can do nothing. Good morning, sir. I shall return at ten to-morrow; but if my orders have not been obeyed, it will be, I assure you, for the last time."

The energetic, decided manner of the man had a powerful effect. The prescription was distasteful, unfeeling—one might almost call it revolutionary, degrading, or at least far from gratifying. Still, after a hard struggle, the father felt the wisdom of yielding to the doctor's opinion and strictly following his advice.

The young invalid was roused by the strangeness and novelty of the order, and at the appointed hour she was ready for the doctor in her neat and simple dress. The doctor gave her his arm, and they went out together, while the father, full of anxiety, watched them from the win-

dow.

"We will not go far to-day," said the

doctor cheerfully.

Accordingly, when they had reached the next street, they entered a house, crossed a court-yard, climbed two narrow flights of stairs, and at last entered a miserable room, long the home of poverty

and disease.

The poor mother, who was a widow, was bedridden and in great suffering. A pale, dejected-looking girl sat near her, doing some coarse needlework, while three famished, half-naked children completed the group. The doctor spoke to the poor sufferer with the kindest sympathy, listened, prescribed, gave his orders to the daughter, and slipped something into her hand with a few comforting words and a cheery smile.

Truly he brought a gleam of heavenly

sunshine into that dreary room.

Edith, his young companion, had never looked on poverty before. It was a new revelation to her. Her heart melted with pity.

As they left the room she said with an-

imation,-

"O Doctor, my father must come at once to the assistance of these poor people."

"Yes," he replied, "it will be well to ask him to help them; but do not forget that there is a Friend of the poor greater and richer than he. Do not forget to pray to Him for them."

When they were again in the street, the doctor was about to take Edith home, saying that he had another visit to pay.

"Pray let me go with you," she cried, "I am not the least tired, and I am so deeply interested."

Another visit was paid, and again her heart was touched by new aspects of suffering and privation.

On her return she could hardly wait to answer her father's anxious inquiries as to how she felt, if she were over-fatigued,

"O father," she exclaimed, "I have seen such poverty; I never dreamed of anything like it. You will help these poor

people, will you not?"

The merchant, only too happy to see in his beloved child such returning animation and interest in life, willingly opened

But the doctor interposed, "You must allow me to prescribe here, too," he said, "and to lay down a few simple rules. Remember these poor people are my patients; you are my patient too; and I must see to the welfare of all. My first rule is, that you give only to these poor people with your own hands. Your maid may carry the things for you to the door, but you must bestow them yourself.

"My next rule is, Do not give them money, but only such clothing and food as you see is needed. Observe their wants, and then supply them as your own good sense will teach you. 'Blessed is he that considereth the poor.' Then remember that they have souls as well as bodies; and whenever you visit them, read them a psalm which you have carefully chosen beforehand."

Edith conscientiously followed these prescriptions, and fully did she realize the truth of these divine words, "It is more blessed to give than to receive."

She felt as if she had come to life again. Her heart beat high with hope and generous longings. A new interest animated her. She learned to sympathize, to love, to pray, to rejoice. She who had shivered at a breath of air, was now ready to brave the wind and the rain on her errands of mercy. She feared nothing but "to lose a day" from her delightful work of doing good. Her doctor was always her adviser; and under his guidance she was enabled to accomplish a great amount of good. She felt like one who has entered a new world, and whose mission in it is a singularly happy one.

Now that she wished to live and that spirit and hope had returned, whatever was amiss in her own health soon yielded to skillful treatment, and she who while an invalid herself had devoted herself to the comfort of other sufferers, became an active, energetic, useful woman, the picture of blooming health and cheerfulness.

During her whole life she continued to

climb the narrow staircases of the poor, and to visit them in their wretched rooms.

"It was thus," she often said, "that I recovered health of body and of mind, and while I live this shall be my sacrifice of thanksgiving."

A celebrated philanthropist says in one

of his letters,—
"Miss E—— is wonderfully well this spring. Her health is greatly improved, and in spirit and cheerfulness she is not like the same person. She is quite taken up in doing good to the poor around her, thinks of them and forgets herself. You remember what she was,-a poor, selfish invalid, full of fanciful ailments, making every one wretched about her. If you saw her now you would not know her to be the same. She is bright, animated, happy, and full of busy, useful plans. This teaches us a useful lesson, that when one is low-spirited, anxious, sad, and troubled, the best cure is to try and do good to oth-'Trust in the Lord and do good.'" This is the best recipe for a happy life. -British Messenger.

KRAO, THE " HUMAN MONKEY."

Through the courtesy of Mr. Farini, I have had a private interview with this curious little waif, which he is now exhibiting at the Royal Aquarium, Westminster, and for which he claims the distinction of being the long-sought-for "missing link" between man and the anthropoid apes.

Krao certainly presents some abnormal peculiarities, but they are scarcely of a sufficiently pronounced type to justify the claim. She is, in fact, a distinctly human child, apparently about seven years old, endowed with an average share of intelligence, and possessing the faculty of articulate speech. Since her arrival in London, about ten weeks ago, she has acquired several English words, which she uses intelligently and not merely parrot fashion, as has been stated. Thus, on my suddenly producing my watch at the interview, she was attracted by the glitter, and cried out c'ock, c'ock, that is, clock, clock! This showed considerable powers of generalization, accompanied by a somewhat defective articulation; and it appears that her phonetic system does not yet embrace the liquids l and r. But in this and other respects her education is progressing favorably, and she has already so far adapted herself to civilized ways that the mere threat to be sent back to her own

people is always sufficient to suppress any symptoms of unruly conduct.

Physically, Krao presents several peculiar features. The head and low forehead are covered down to the bushy eye-brows with the deep black, lank, and lusterless hair characteristic of the Mongoloid races. The whole body is also overgrown with a far less dense coating of soft black hair about a quarter of an inch long, but nowhere close enough to conceal the color of the skin, which may be described as of a dark olive-brown shade. The nose is extremely short and low, with excessively broad nostrils, merging in the full, pouched cheeks, into which she appears to have the habit of stuffing her food, monkey fashion. Like those of the anthropoids, her feet are also prehensile, and the hands so flexible that they bend quite back over the wrists. The thumb also doubles completely back, and of the four fingers, all the top joints bend at pleasure independently inward. Prognathism seems to be very slightly developed, and the beautiful, round, black eyes are very large and perfectly horizontal. Hence the expression is on the whole far from unpleasing, and not nearly so ape-like as that of many Negritos, especially of the Javanese "Ardi," figured by me in Nature. But it should be mentioned that when in a pet, Krao's lips are said to protrude so far as to give her "quite a chimpanzee look."

Apart from her history, one might feel disposed to regard this specimen merely as a "sport" or lusus nature, possessed rather of a pathological than of a strictly anthropological interest. Certainly isolated cases of hairy persons, and even of hairy families, are not unknown to science. Several were figured in a recent number of the Berlin Zeitschrift für Ethnologie, and, if I remember, both Crawfurd ("Journal of an Embassy to Ava") and Col. Yule ("Mission to the Court of Ava") speak of a hairy family resident for two or three generations at the Burmese capital. This family is reported to have come originally from the interior of the Lao country, and in the same region we are now told that little Krao and her parents, also hairy people, were found last year by the well-known Eastern explorer, Mr. Carl Bock. Soon after their capture, the father appears to have died of cholera, while the mother was detained at Bangkok by the Siamese government, so that Krao alone could be brought to England. But before his death a photograph

of the father was taken by Mr. Bock, who describes him as "completely covered with a thick hairy coat, exactly like that of the anthropoid apes. On his face not only had he a heavy, bushy beard and whiskers, similar in every respect to the hairy family at the court of the king of Burmah, who also came from the same region as that in which Krao and her father were found, but every part was thoroughly enveloped in hair. The long arm, and the rounded stomach also proclaimed his close alliance to the monkey form, while his power of speech and his intelligence were so far developed that before his death he was able to utter a few words in Malay."

Assuming the accuracy of these statements, and of this description, little Krao, of course, at once acquires exceptional scientific importance. She would at all events be a living proof of the presence of a hairy race in farther India, a region at present mainly occupied by almost hairless Mongoloid peoples. From these races the large straight eyes would also detach the Krao type, and point to a possible connection with the hairy, straight-eyed Aino tribes still surviving in Yesso and Sakhalin, and formerly widely diffused over Japan and the opposite mainland.—

A. H. Keane, in Nature.

POPULAR SCIENCE.

—Mount Blanc, the highest peak in Europe, was discovered less than three centuries ago.

—Rawhide is used for making horse-shoes in England. Rubber horse-shoes are also frequently used.

—Cockroaches will not molest the binding of a book which has been varnished with a mixture of two parts copal varnish to one of turpentine.

—Can any one explain why useless weeds flourish during the most parching drouths, while useful plants survive only by the aid of the greatest care?

—The electric light finds general favor as a means of lighting libraries, and is being introduced into libraries which have heretofore been open only during daylight, owing to the risk of fire and the destructive action of the gases of combustion on the bindings of books. The electric light is free from both these objections, and in its improved forms is most agreeable, and is by all odds the best of all sources of illumination in the absence of sunlight, which it most resembles.

—Plaster casts may be hardened by boiling for half an hour in a strong solution of potash alum.

—Some materialistic scientists are very fond of quoting the remark of Kant: "Give me matter, and I will explain the formation of a world;" but they omit his other words, "Give me matter only, and I cannot explain the formation of a caterpillar."

—A Belgian has invented a clock with a windmill attachment for winding it up, which comes the nearest to a perpetual motion of any machine yet constructed. The wind-mill is not dependent upon the wind, being actuated by the draft in a tall tube or chimney.

—The telephone is already getting to be a burdensome monopoly. In the large cities, it is becoming fashionable to have telephones in private houses, connecting with the butcher, the grocer, and the baker, so that the mistress can do her shopping without stepping out of doors. It remains to be seen whether the invention will prove a blessing or a nuisance. The whole business is owned and managed by a single company, and they set their own prices, which, considering the very moderate first cost of the instrument, are very exorbitant.

Modern Mastedons.—Recent discoveries in Indiana give a much more recent date to the mastodon than has been generally assigned. In one skeleton the marrow of the huge bones was still capable of use, and the kidney fat was replaced by lumps of adipocere. In another, found in Illinois, there was every evidence that it had lived upon the vegetation of the present day,—upon the grasses and herbs that now grow in the vicinity.—Ex.

Glycerine Glue.—A German chemist has discovered that the strength of glue is very greatly increased by the addition of one-fourth as much

glycerine as glue.

Glycerine has many other uses, among which one of the least known is its property of removing pencil marks from paper in a very perfect manner. It may also be combined with starch and plaster-of-Paris, to form one of the most durable cements for various kinds of apparatus.

To Bleach Straw.—A chemical journal gives the following as a reliable recipe: About nine ounces of permanganate of potash are dissolved in one gallon of warm water. This is done in an earthenware vessel, and cold water is then added until the liquid takes a dark-red color. The straw is left for about six hours in a tepid and weak solution of soda crystals. It is then washed carefully and introduced into the permanganate solution, in which it is continually agitated. As soon as it has taken a light-brown color, it is dipped in cold water, then in a bath of bisulphate of soda, strong enough to be smelled. In this bath the straw is left for fifteen minutes, and when taken out it is perfectly white.

Cement for Glass and Metal.—The followng are the necessary ingredients: Litharge, 2 parts; white lead, 1 part; boiled linseed oil, 3 parts; gum copal, 1 part. Mix just before using. This forms a secure cement, and dries quickly.

Progress in Microscopy.—Two microscopes, called the "Jumbo" and the "Midget," formed an interesting exhibit at a recent meeting of a London society. The former instrument, probably made about half a century ago, was $4\frac{1}{2}$ feet high and weighed 125 lbs., while the "Midget," fully equipped for work, had a total height of only four inches, and weighed but a few ounces. Six such microscopes as the smaller one could be inclosed in the eye-piece of the larger.—Boston Journal of Chemistry.

Adulteration of Soap.—Even this cheap commodity is not allowed to escape in these days when men ransack their brains for something to adulterate. The most common adulterant is resin, which is very largely used in yellow soaps. Resin does not add at all to the cleansing properties of soap, and so is a dead loss to the consumer. Its presence can be detected by the unusual softness of the soap, and a peculiar stickiness, which can be recognized by a little experience.

We ought also to mention that much soap is made from grease extracted from the carcasses of diseased animals. We cannot affirm with certainty that such soap causes disease; but it is open to suspicion, at least, and ought to be avoided by purchasing the article only of par-

ties who guarantee its quality.

Utility of Ants .- Agriculturists are making the discovery that ants are useful, not only as setting a good example by their persevering in-dustry, but by actual co-operation with the farmer in combating some of the most troublesome pests with which he is annoyed. One farmer, in writing to a contemporary journal, asserts that they are indefatigable antagonists of canker-worms, destroying them in large num-Another reports that they are equally fierce in their onslaughts upon the army-worm; and it is recently reported that the Chinese correspondent of the Agricultural Bureau at Washington, has given an account of an ant which the Chinese use for protecting their orange groves from worms. These ants build their nests in trees, which the natives approach, "provided with pig or goat bladders, baited inside with lard. The orifices of these they apply to the entrance of the bag-like nests, when the ants enter the bladders, and, as Dr. Macgowan expresses it, 'become a marketable commodity at the orangeries.' The trees are colonized by placing the ants on their upper branches; and bamboo rods are stretched between the different trees, so as to give the ants easy access to the whole orchard. This remedy has been in constant use at least since 1640, and probably dates from a much earlier period."



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

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A HYGIENIST ABROAD.

NAPLES TO VIENNA.

TAKING a sleeping-car at nine o'clock in the evening, we soon said good-bye to Naples, with its beautiful bay, its wonderful ruins, its gorgeous sunsets, its smoking volcano, its macaroni, and its chin-rapping beggars. Mr. Licausi, a young dentist whose pleasant acquaintance we were so fortunate as to form, came down to the depot to see us off, and provided us with a liberal supply of the most delicious oranges to be found in the world, coming fresh by every boat from the neighboring island of Sicily. As soon as we had time to look around us, we found ourselves in possession of a nice light sleeping apartment, wholly devoted to our exclusive use, furnished with luxuriantly cushioned couches on either side, and supplied with every modern convenience to be desired. Three days of mountain climbing, tramping among old ruins, and hunting for adventures among the country peasants, had entitled us to a good night's rest, notwithstanding the rattle and jostle of the light Italian cars, and we woke at six o'clock the next morning to find ourselves in Rome en route for Venice. We had two hours to wait for the northern train. which gave us time to get our breakfast and call at the bank for letters. We improved a little spare time also to step out from our hotel, with a bottle carefully concealed in our side-pocket, in quest of a sample of goat's milk. We soon found the corner where we had previously observed that a goat-herder was in the habit of stopping each morning with his flock of goats to supply his customers in the neighborhood, and had the satisfaction of seeing our bottle filled with the feaming lacteal fluid. We had imagined that we should find goat's milk possessed of a strong and unpleasant flavor, and were agreeably surprised to find it quite as sweet and palatable as the best cow's milk we ever tasted, though not quite so rich, but according to the testimony of those familiar with its use, much easier of digestion by weak stomachs.

At ten o'clock we were again on board the cars, bound for the Queen of the Adriatic. Just before sunset we reached Florence, where a stop of a halfhour gave us time to drive hastily through some of

the principal thoroughfares, catch a glimpse of the home of Michael Angelo, and gaze for a moment upon the beautiful bronze door which that famous artist rather irreverently pronounced "fit to be the gate of Paradise." When it came time to return to the depot, we found to our discomfiture that our Italian cabman was unable to comprehend a word of either French, German, or English, and when ordered, in either one or all three of the languages mentioned, to drive to the depot with dispatch, dashed off furiously in the opposite direction. By much vociferation of the one or two Italian words we had mastered, and violent gesticulation, we succeeded, however, in getting to the train just in time to leap aboard. Our sleeping car left us at Rome, and we were obliged to pass the night after the usual uncomfortable fashion curled up on the seat, underneath a blanket, with a valise for a pillow. The next morning just at daybreak we peeped out of our window, and, to our surprise, saw water stretching out before us as far as the eye could reach. The track seemed to be running out to the very water's edge. Stepping over to the other side of the train, we found to our amazement that the view was identical on either side. Thinking that we might not be quite awake, and were looking out the same side as before, we oscillated back and forth, making observations from either side and from the middle of the car, until we became convinced that our train was running straight into the sea, the intent of which was to us an inscrutable mystery; for it seemed inevitable that we should shortly be plunged headlong into its dark floods.

We wondered at the cool apathy of our fellow-passengers under such alarming circumstances, and meditated the feasibility of numerous methods of escape,—such as dropping off the hind end of the train, sailing away on a valise, etc., but finally concluded to meet our fate with composure equal to any of our fellow-passengers. Just as we were becoming resigned to the evil catastrophe which appeared to await us, we began to discover in the distance the outlines of an island, with here and there a tall spire barely visible in the dim light of early dawn; and ten minutes later we found ourselves again on terra firma. We had found a new continent away out in the sea, apart from all the rest of the world—not exactly

a continent either, more properly an archipelago, as we soon discovered. While entirely surrounded by water, the land was divided into innumerable islands, all connected by bridges spanning the numerous canals which meandered among them like the cattlepaths of a western forest, without the slightest hint of regularity. The conductor turned us out of our section of the coach, and bundled out our baggage after us. As we stepped out of the station door to look for a cab, we found ourselves again at the water's edge and a long row of gondolas before us evidently saying, "This is Venice, and we are the cabs here;" so stepping aboard and seating ourselves in the covered coupé in the center, our gondoliers quickly paddled us to a hotel, where we snatched a few hours' sleep, and then, with a guide and a gondola, started out to see the town. The transition from a jarring, rattling, jostling, noisy railway coach to a graceful, silently moving gondola is most delicious. Nowhere else can one find such boatmen as in Venice. They stand with their faces to the prow of the boat, and dip their oars out and in the water so deftly that scarce a ripple is stirred; planting their oars deep, they incline their bodies forward with a quick jerk, then back to position again. This motion is repeated about thirty times a minute, and propels the boat at about the same speed that a good horse would trot, as nearly as we could estimate, though we did not have an opportunity to make a comparison, since there is not a single horse in Venice. The marvelous skill with which these boatmen turn the sharpest corners and shoot through narrow arches, is almost incredible. The ancient looking houses of the city all front upon the canals, rising up perpendicularly out of the water, as though they had been half buried by a sudden flood which never subsided. A flight of steps from the front door leads down to the water's edge, and a gondola may usually be seen near at hand, with a sleepy looking boatman drowsing in the sun. Often we saw little children four or five years of age playing upon the stone steps, within a foot of the dark blue waters, which led us to ask the guide if people were not frequently drowned in Venice, to which he gave a negative answer, assuring us that "in Venice everybody can swim," which painfully reminded us of our own lack of that convenient accomplishment, our case being that of the boy whose mother was unwilling he should venture into the water until he learned to swim. We have read elaborate treatises on the subject, and received a world of excellent advice from experienced swimmers, and believe we know pretty well how the thing is done; and yet we doubt whether our modesty would allow us to attempt an exhibition of the art in mid-ocean, at least unless we had a few experienced seamen close at hand to prompt us in case the excitement of the moment should lead us to omit any of the proper evolutions.

We should advise any one who expects to stay

long in Venice to learn to swim before going there, as it would be the easiest thing imaginable for one, in a moment of abstraction, to start out for a moonlight stroll, and, while admiring the transcendent brilliancy of the Queen of Night in a clear Italian sky, walk down the front doorsteps into an involuntary seabath, where, like the tippling fisherman, he would go down, down to feed the fish, without a hope of rescue unless there happen to be some little Venetian boy prattling on the banks, who could plunge in after him and tow him to the shore.

Well, here we are, gliding along the Grand Canal of Venice, with the gondoliers darting recklessly in every direction, but never colliding and never bespattering the occupants. Here is the Rialto, the great bridge of Venice, ever so many hundred years old, with its two grand arches and its double row of shops on either side. We land close to it on one side to cross over and take a walk through the market-place, leaving orders for our boatman to join us at another point. And such a market-place you will see nowhere but in Venice. Fish, fish, fish, everywhere! Here and there are a few vegetables, rather dear in price and not extra fine in quality, evidently not esteemed so highly here as elsewhere, as fish is the staple diet of Venice. It is natural that it should be so, since fish are almost the only crop raised by the Venetian farmer, whose broad pasture lands and meadows are all buried in the sea. The fish-market of Venice is the best place in the world to study piscatology. We cannot begin to name the variety of fish, with scales and without scales, bi-valves and uni-valves, and curious masses of jelly without any valves at all. Strangest of all is the black cuttle fish, with its inkfountain by means of which it "throws dust" in the eyes of its enemies. The gift of a few coppers persuaded a Venetian to squeeze one of these devilish looking creatures with his thumb and fingers, when it immediately vomited out its internal skeleton, and we beheld the oddly shaped cuttle bone which we have so often seen stuck between the wires of canary bird cages.

But we have only a few hours for Venice, and must hurry on. Here is St. Mark's church, whose rich gilt ornamentation glitters in the sunlight, and whose antique structure half persuades one that the legend which claims for it the honor of being the burial place of the veritable St. Mark, may possibly be true. Close by is the bell-tower, surmounted by a huge bell, on each side of which stands a mammoth bronze figure. The hand of the clock points just at twelve, so we shall see it strike. Now the bronze man on the right is raising his right arm, in which he holds a great sledge-hammer. Down it goes with a tremendous thump, and the great bell jingles as though a giant had struck it. The bronze man on the other side seems to be a shadow of the other, and repeats the operation in order to make the shadow true to life. So they go on, each striking alternately until twelve double strokes have been produced, then each becomes as immovably passive as before.

Just at the right of St. Marks' is the famous Doge's palace, in which, however, there has been no Doge for scores of years. It is now used as a picture gallery, containing numerous works by the most eminent masters, the most remarkable of which is the painting of Paradise by Tintoretto, the largest oil painting in the world. Here are also the dungeons in which the prisoners of state were confined, dark, damp, and dismal enough, but rather disappointing after all, as they are not half so miserable as the word-painters have made them out to be.

Lastly, we note the Bridge of Sighs, which a famous Italian traveler has denominated "that pathetic swindle of Venice," which it certainly is, for we were not able to discover a single sigh in its composition. Neither was one, in passing over it, disposed to sigh more than in many other situations. It looks exactly like a hundred other little bridges in Venice—neither better nor worse—and there is no special reason why one should sigh because it happens to be the particular bridge over which the cut-throats, ruffians, brigands, and miscellaneous villains of a century or two back, used to walk on their way to execution.

We ask our guide what next there is to be seen, He scratches his head, and says, "Well, there are the public gardens;" but we cannot be induced to believe that a public garden in Venice, where land is so scarce that some of the streets are hardly wide enough for two persons to pass without jostling each other, can amount to much compared with the magnificent garden of the Tuilleries of Paris, or the spacious parks of London, so we conclude to return to our hotel, stopping on the way to visit the Government school of lace-makers, and the manufactory of the famous Venetian glass. We get back just in time to escape a vigorous rain-storm, which pours down water as plentifully as if it were as badly needed in Venice as in the heart of the Sahara, and brings on the night so early that by nine o'clock when we start for the depot to resume our journey, the watery streets are, to use an Americanism, as dark as a pocket. Snugly packed away in the coupé of our gondola, we do not mind the rain, though the darkness is somewhat oppressive, as the electric light is as yet somewhat of a novelty in Venice, at least on board gondolas. We are afraid our boatmen will lose the way in the darkness so that we shall miss the train, but, almost before we are aware of it, they are dropping the oars, having brought us to our landing-place, and, after paying our fare, -not forgetting the "pour bois" for the boatmen and a few coppers for the man who holds our gondola with a boat-hook,-we step on land again. The "pour bois," we should explain, is a sum which the traveler is expected to pay, in addition to the regular fare, for the purpose of supplying the guide or gondoller with wine or beer to drink. In other words, it is "drink money." We took pains, however, to explain that we did not believe in drinking either wine or beer, and would not buy either one for anybody, and that our "pour bois" was for bread instead of wine.

Snugly packed in a compartment by ourselves, we were soon flying over the rails again toward our destination, Vienna. Passing another miserable night, cramped on a short seat, and shaken out of every inclination to slumber by the jostling train, we arrived the next morning at Trieste, one of the most important ports of the Adriatic; and, after traveling another day through the most delightful variety of mountain scenery, including the beautiful Semmering Alpregion, we arrived about ten o'clock P. M. at Vienna. We found an omnibus from the Hotel Metropole at the depot, and after securing our baggage, rolled away over the rattling pavement to the hotel some three or four miles distant,—all of the railroads entering Vienna terminating at the outskirts of the city.

The next morning the first sight that met our eyes as we looked out from our window was the "Beautiful Blue Danube," flowing majestically along to mingle its blue waters with the briny waves of the Baltic. Wait a moment. Did we say blue Danube! Certainly, the "Blue Danube" must be blue. We look again, and then again, to assure ourselves that this is really another poetical fiction, for certain it is that the "Beautiful Blue Danube" is the muddiest stream we ever set eyes upon. Indeed, one finds it hard to believe that it is even water. It seemed to be nothing but yellow looking mud, and an old resident assured us that this has been the complexion of the river during the memory of the oldest inhabitant. Alas, the romance is all gone! The Danube after such a cruel disappointment is no more to us than the Kalamazoo or any other little river whose waters are not extraordinary for their purity.

The first day in Vienna was spent in hunting for a guide and getting settled. We succeeded after several miles of tramping through the rain and mud, in finding suitable furnished apartments near the great hospital of Vienna, the central object of interest to us. Receiving an invitation from Prof. Hcbra, to whom we had a letter of introduction, to attend his lecture on Diseases of the Skin at two o'clock P. M., we made a beginning of our medical work in Vienna, about which, together with the many things of interest which we saw and learned in this great city, we will tell you next month.

Tea versus Whisky.—A newspaper correspondent is responsible for the statement that Sir Garnet Wolseley, commander of the British army, is a teetotaler, and has substituted cold tea for whisky in the British army. If true, this is certainly a commendable improvement. One more substitution, that of cold water for cold tea, would effect the change necessary for a thorough-going temperance reformation.

NEWSPAPER NONSENSE.

There probably never was a time when the credulity of the public was so much practiced upon by newspaper writers as at present. The most improbable and inconsistent yarns are gathered from neighborhood gossips, or concocted in the writer's brain, and palmed off upon the public as a genuine relation of facts, and to such an extent that the most credulous class become prepared to believe the most monstrous and impossible stories, while more sensible persons become so thoroughly disgusted with the patent mendacity of newspaper writers that they are ever suspicious and always in doubt when to place confidence in any reported new discovery or remarkable occurrence. A good sample of the reckless manner in which penny-a-liners manufacture sensational material, recently appeared in a prominent newspaper whose Southern correspondent reported the following case:-

"One of the most remarkable maladies known to the medical profession is now puzzling the doctors of North Carolina in the person of a young man aged eighteen years. If an ordinary bath tub is filled with ice-cold water, and the boy's feet placed in it, in less than six minutes the water is made to come to a boiling heat. The boy suffers the most intense agony, and has to be kept in cold water nearly all the time. When the vessel containing water becomes too hot, it is replaced by another, and the changes continue as rapidly as the water becomes heated."

The writer does not attempt to explain why the young man's feet are not cooked by the heat which they generate in such quantities as to raise water to a boiling temperature in less time than though they were red-hot cannon balls, neither does he state how they are prevented from setting the bed clothing on fire when not immersed in the ice-cold water, and yet it is probable that there are plenty of persons, especially among those who read patent medicine almanacs and swallow the filthy nostrums which they advertise, who will give credence even to so remarkable a yarn as this.

Horrible, if True.—A prominent medical journal warns its readers against a well-known university in the following paragraph:—

"A lover of peace should be careful to avoid Jena [Germany] University as a place of study. No less than twenty-one serious duels among the students are said to have come off in one day. To enhance the horrors and risks of this barbarous practice, it appears that, for want of care in the cleansing of the weapons employed, blood-poisoning in many cases followed the infliction of wounds, so that some forty young men are lying in the hospital in a precarious condition."

It will be a matter of interest to invalids to know in what part of the world the medical men educated at Jena intend to practice, as it is probable that few persons would like to trust their lives in the hands of men who acquired the art of dueling as a part of their professional education.

A Burlesque.—No doubt there are persons who are inclined to make a hobby of every new discovery or reform; and possibly there may be an excuse for the following burlesque on the agitators of germ theories and dangers from adulteration; but we seriously fear that if a body of microscopists should actually undertake to make such an inspection as our satirist supposes them to do, the imaginary scene would approach quite too near a reality to allow them to consume their meal with a genuine relish:—

"When the microscopists sat down to dinner, each one produced his compound oscillating microscope, and carefully examined every article of food. Excited shouts went up as new discoveries of metallic, vegetable, and sausage substances were discovered in the soup. An examination of the water resulted in the discovery of such an enormous quantity of infusoria, mammalia, and pachydermata that the microscopists unanimously refused to drink it. During the progress of the meal, much enthusiasm was aroused by the announcement of Professor White that he had discovered a trace of hairpin in the beefsteak, thus upsetting the theory that the beefsteak of American hotels is a

chemically pure carburet of sole-leather; and, at a later hour, Professor Black's assertion-based on a thorough microscopic examination-that he had discovered whortleberries in the whortleberry pudding, and wine in the wine-sauce, led to a heated discussion, in the course of which thirty-eight microscopists declared that Professor Black was an ignorant and unprincipled pretender, and eleven others maintained that the Professor was acting in good faith, and that his discoveries could be accounted for on the theory that the waiter had given him, by mistake, a piece of whortleberry pudding made expressly for the landlord's private table."

The Poison of Tobacco.—Everybody knows tobacco will kill snakes and vermin, but every one does not know that the nicotine contained in a single pound of tobacco is sufficient to kill 300 men, if taken in such a way as to secure its full effect. A single cigar contains poison enough to extinguish two human lives, if taken at once.

The essential oil has been used for homicidal purposes. Nearly thirty years ago it was employed by the Count Bocarmé to murder his brother-in-lawfor the purpose of securing his property.

The Hottentots use the oil of tobacco to kill snakes, a single minute drop causing death as quickly as a lightning stroke. It is much used by gardeners and keepers of green-houses to destroy grubs and noxious insects.

A number of instances are recorded in which instant death has been produced by applying a little of the oil from the stem or bowl of an old pipe to a sore upon the head or face of a small child.

Funeral Reform.—In England there have existed for some time funeral reform societies which encourage cheap and unostentatious funerals among the poor, who often suffer great hardships in consequence of the expense incurred in the funeral of a friend or relative. We are heartily in sympathy with this movement, and hope it will extend to America, where it is also needed, especially in the large cities.

Grain Disease in Italy.—A terrible malady known as Pelagra is prevalent in Italy among the poorer classes, especially in agricultural districts, an account of which is given in the last report of the superintendent of agriculture in that country:—

"The symptoms are described as beginning with a feeling of sickness and melancholy. Those parts of the skin which are exposed to the sun become red, and subsequently livid, dry, loose, and scaly. In autumn the symptoms frequently disappear entirely, but return with renewed virulence in the following year. The lips next become pallid, and the tongue is affected, while burning pains begin to be felt in the body. The weakness then approaches to paralysis, and madness often supervenes at this stage. There is great emaciation, and a propensity to suicide, which is often attempted —in most cases by drowning. So strong is the influence of the disease upon the mind, that 37 per cent of the cases in the hospital at Verona exhibit madness as its result."

The disease is supposed to have arisen from the use of corn which had not been properly dried, and owing to this fact had been invaded by a vegetable fungus, the spores of which give rise to the disease when introduced into the system through the use of the affected corn as food. The Italian Government is taking steps which it is hoped will serve to check the ravages of the malady by removing its causes.

Drunk on Rock and Rye Candy. - Some very good people who consider themselves staunch friends of temperance, imagine that they are in no way violating temperance principles by indulging in the use of wine drops, rock and rye candy, and other alcoholic confectionery. It must be a very easy conscience indeed that can overlook the fact that alcohol is alcohol, wherever it may be found. An exchange asserts that a young lady of New Haven, Conn., of respectable family, was recently found drunk from eating rock and rye candy. The authorities of the town very properly warned the confectioner to either stop selling such candy or take out a saloon-keeper's license.

Troublesome Health Reformers.—In all ages, from the days of Hippocrates to the present time, acute observers among physicians have laid down general rules for the observance of health which are remarkable in their concurrence. An irreverent editor who has observed this fact remarks, that, "one thinks, in reading the writing of Hippocrates, written more than two thousand years ago, that he is reading the exhortations of one of the modern troublesome health reformers."

Health reformers do make a great deal of trouble. What a pity it is that people should be made uneasy about their surroundings! How much better it would be to leave them unmolested to the enjoyment of the lovely properties of sewergas, the noxious odors of decomposing filth, and similar natural and unnatural enemies of sanitation! The reformer was never popular, and the prospect is not at present very flattering that he ever will be.

The Moral Influence of Tobacco-Using.-The editor of a school journal complains of having "met a director last summer whose chin was channeled with streams of tobacco juice, and who paid out annually enough for tobacco to supply all needed fixtures in his school-house, but not a dollar would he invest in school necessities, because it would 'tax the people, and they were groaning now under a heavy burden. Such men must be supplanted by the boys who are to take their places, having more liberal views and broader ideas of human life." The editor referred to seems to have overlooked the fact that it was tobacco-chewing which had made their school director so narrow-minded that he could not be made to appreciate the importance of investigating anything in improvements; and if the boys who are to take the place of such school directors as the one referred to, grow up to manhood with chins "channeled with streams of tobacco juice," they too will be equally narrow and stingy. The remedy is not in scolding about the tobacco-chewing directors, but in taking care to educate the coming director to the belief that tobacco-

chewing is a vile and filthy habit, productive of mental and moral deterioration, and worthy only of the barbarous savages with whom it originated.

Worth Remembering .- An exchange is responsible for the following account of a method of mitigating the evils of tobaccousing: "An English workingman, of middle age, found his pipe, for many years a great comfort, was beginning to affect his nerves, and tried to find a way by which he might continue to smoke without injury. wrote to a medical journal, and was told to fill the bowl of the pipe one-third full of table-salt, and press the tobacco hard down upon it, as in ordinary smoking. The result was very satisfactory. During the process of smoking, the salt solidifies, while remaining porous; and when the hardened lump is removed at the end of a day's smoking, it is found to have absorbed so much of the nicotine as to be deeply colored. The salt should be renewed daily."

The above advice is, in our opinion, quite faulty, notwithstanding its professional origin. If the gentleman had been instructed to fill the bowl of his pipe with salt mixed with a proper proportion of clay, he would have found himself wholly protected from the evil influence of the tobacco fumes, as under the influence of the fire, the compound would form a non-porous substance quite impenetrable by nicotine. This plan we can recommend to all smokers with perfect confidence.

Highland Simplicity.—A writer in a London newspaper illustrates the difference between the luxuries and the necessities of life as follows:—

"Your thoroughbred Highlander will live contentedly on 'parritch,' and will sleep sweetly on the heather with his plaid wrapped over him, and if his knees should chance to protrude out of bed a little, and the hoar-frost should have gathered upon them in the morning, it is just possible that, as he brushes it off and stretches himself, he may remark that it has been a 'cauld nicht.'"

In physical development the porridge-eat-

ing Highlander is in no way inferior to his beef-eating English neighbor, and in point of endurance is decidedly superior, besides enjoying comparative immunity from some of the chronic maladies which grow out of the excessive use of animal food.

Typhoid Fever.—There are fifty deaths a day from typhoid fever in Paris, the main cause being filth. The conditions which encourage the development and extension of the disease, and which prevent its restriction, are thus stated by a recent writer in the Sanitary Journal:—

"The hospitals are full beyond the limits of prudence, and a family of eight or ten has only one room; a child fourteen years of age has been dead twenty-four hours, and another is sick with the fever. Clean the premises. There is no water, and the occupants are too lazy or too indifferent. Disinfect the apartments. It costs too much. Wash the clothes. There are none to be washed, except what the family are wearing."

A Nurse who had no Use for a Thermometer.—Too many babies are subjected to the kind of torture hinted at in the following paragraph:—

"'I don't believe you have the water of the right temperature. You must get a thermometer,' said an Austin mother to the new colored nurse. 'What am dat?' 'It is an instrument by which you can tell if the water is too hot or too cold.' I kin tell dat ar without any instrument. Ef de chile turns blue, den de water am too cold; and ef hit turns red, den I know dat de water am too hot.'"

Harmless Physic.—A pharmaceutical editor asserts that when he was a boy "It did not take a student two years at a pharmaceutical college to learn that when he could not read what the doctor had written he should put in aqua pura, syrup simplex, and podophyllin."

Undoubtedly the drug clerk's trick to cover his ignorance saved many a patient from a worse prescription. When acting as assistant in the drug department of one of the large dispensaries in New York, some years ago, we one day found that the essential ingredient called for by a prescription was lacking. Never mind, said the head clerk, put in the flavoring and it will do just as well, and it did; for the patient returned in a week to have the bottle refilled, and declared the medicine had done her much good.

Malaria and License.—Our temperance legislators ought to know that license laws are of little account so long as malaria is allowed to be a sufficient excuse for the use of stimulants. An editor of a drug journal thus describes the facility with which the word is used in obtaining liquor:—

"On entering a modern drug store, you walk boldly up to the be-mustached and be-jeweled clerk. If you know your business, and it is a temperance town, you wink at the fellow, and say something about malaria. It is a matter of indifference just what you say. The single word 'malaria' is the golden open sesame. . . . Whenever I see a man coming out of a drug store, and wiping his mouth on the back of his hand, I realize to its full and awful extent the hold that malaria has on this unfortunate people. What the drug stores in towns where a strict license law prevails would do without 'malaria' is a hard problem."

License laws, to be effective, must either impose a fine for having malaria, or prohibit alcohol as a remedy.

Nutritive Value of Rice. - In recent years there has been a greatly increased consumption of rice in Germany, which has led to an investigation of the nutritive value of this grain when compared with potatoes and other foods. "The conclusion reached is that rice is a very efficient food, while potatoes largely consumed fail to satisfactorily nourish the body, making the muscles weak and the blood watery. Dr. Konig estimate's that when equal quantities of the two articles are considered, rice has four times the value of potatoes in really nutritive properties. A further advantage of rice is that its quality is always the same, while great variation in potatoes is caused by the state of the weather during their growth."

Druggists' Profits.—There are some people who would pour a smaller quantity of drugs into their stomach if they knew what cheap stuff the original material was, and the immense profits made by druggists. We publish the following, for which the Boston Globe is responsible, for the benefit of such:—

"An out-of-town druggist entered one of Boston's apothecary stores, and handed the clerk a simple recipe. 'One dollar and fifty cents,' said the latter, as he handed the medicine over. 'Is n't that pretty steep?' asked the customer, adding, 'I'm in the business myself, and know somewhat about the cost of these ingredients.' 'Oh! that alters the case,' was the response; 'seventeen cents, please.'"

Plain Dress in England.—The following paragraph, which we clip from a recent English newspaper, indicates a wholesome condition of public opinion respecting propriety in dress, which we should be glad to see exist in this country:—

A little girl wore a dress with a flounce around it in the Vicar of Wanborough's parish school in England recently, although he had ordered the pupils to be plainly dressed. The Vicar said that the child must either take off the ornament or remain away from school. Her parents refused to remove the ornament, and the little girl was put out of school. Next, the parents were summoned to the County Court to show cause why the child did not attend school. Upon hearing the facts, the Court upheld the Vicar and his ordinance forbidding any but plain apparel, but mercifully omitted the fine that might have been imposed.

loe Parasites.—An Ohio man claims to have found the bottom layer of ice in an ice-house perforated by holes which were occupied by large white worms. Our pork-loving friends will probably suggest that the ice may be safely used provided it is thoroughly cooked. We are not aware, however, that any experiments have been made to determine the degree of heat sufficient to kill the parasites, or whether they will not be killed provided the ice is salted down or well smoked.

Disease among Cattle in England.-Reports are made from numerous quarters in England of the increase of disease among all kinds of cattle. Large cattle are suffering with pleuro-pneumonia and footand-mouth disease; sheep with "scab"; and hogs with swine fever. It is also observed that disease is increasing among cattle, especially chronic diseases, in the older portions of the United States, particularly New England. We think the same observation will be made in all-civilized countries as they grow older, and become densely populated. The causes which affect human beings seem also to affect lower animals living under similar conditions. It is possible that the day may arrive when animals will become so generally diseased that vegetarianism will become a necessity.

—A cold in the head is hard to cure, especially when it becomes chronic; but by proper care of the skin and attention to the clothing it is quite easy to avoid. Recognizing the difficulty of curing the malady, the French have a saying that, "All that physicians have been able to do as yet for a cold in the head is—to call it coryza." The following conversation summarizes also some very prevalent modes of treatment:—

"What do you do for a cold in the head?"

"I treat it—with contempt."

"And you?"

"When I have a cold in the head,—I sneeze."

—Horace Greely was for a number of years a vegetarian, and once illustrated the advantages of a vegetable diet by remarking that "after Nebuchadnezzar had been turned out to grass, it was never recorded of him that he suffered from indigestion." The record does not state that Nebuchadnezzar was a dyspeptic, or that his dreams were the result of indigestion; but it is not difficult to believe that he found his simple vegetable fare eminently conducive to his health.

—A druggist attributes the dyspepsia of the present generation to the tonics swallowed by our ancestors. If he will include in the category the mercurials, the blood lettings, the purgatives, and the tobacco-using, we will agree with him. But what sort of stomachs will the next generation have?

Talks with Connespondents.

A Western correspondent inquires whether nasal catarrh can be cured.

Answer.—Hardly a week passes but we do not receive this inquiry. Catarrh is exceedingly prevalent through nearly all parts of the United States, and, in fact, we have found the same to be true in Europe. The disease is so chronic and inveterate in its character that many people suppose it to be incurable. For years we have given much attention to the subject, having constantly under our care a large number of cases of the disease, and we have been gradually perfecting methods for treating the disease, which we have found successful. A cure cannot always be accomplished by methods which can be employed at home; but most cases can be greatly benefited, even by home treatment, and some entirely cured. Details of treatment are too lengthy for mention here.

Rattle-Snake Bite. — A Nebraska correspondent inquires for a prescription for rattle-snake bite.

Answer.—The rattle-snake bite destroys life by its paralyzing effect upon the nervous system.

When a person has been bitten by a rattlesnake or any other venomous serpent, the following measures should be adopted: 1. Place around the limb, a short distance above the wound, a cord, tying it as tightly as possible. A whip-cord, shoe-string, neck-tie, strap, or anything which can be made to answer the purpose of a ligature, may be used. It should be sufficiently tight to cut off the circulation. This may be accomplished by placing a small stick beneath the cord, and twisting it tightly; 2. If possible, cut out the bitten part, being sure to include all of the poisoned tissue; 3. If there is no sore, ulcer, or abrasion in the mouth, it will be safe and proper to next proceed to suck the wound, as the poison will do no harm if not received into the circulation; 4. As soon as possible, the wound should be cauterized with a hot iron or live coal, or pure carbolic or nitric acid may be applied. To combat the coldness, the patient should be surrounded with hot bottles and warm blankets. Hot tea should also be given to drink. When the heart becomes weak, galvanism over the heart and hot and cold applications to the spine should be employed. There are no known antidotes for the poison after it has been introduced into the system. Alcohol in the form of brandy or whisky has been very frequently shown to be no antidote for the poison. It is possible, however, that in some cases life may be saved by the employment of stimulants as a temporary means of combating the tendency to collapse. If the patient is too weak to swallow hot liquids, stimulants should be injected into the rectum. It should be recollected that many of those bitten are not poisoned, to which fact may be attributed the supposed efficacy of many remedies which have been recommended.

When there is great stupor and numbness, the patient should be encouraged to exercise. When too feeble to exercise, the muscles may be kneaded and manipulated. If the breathing becomes greatly impeded, artificial respiration should be employed. Hot fomentations over the stomach and cold applications to the head are also useful. Drinking considerable quantities of fluid to stimulate the action of the kidneys, and the hot water bath, are measures

worthy of recommendation.

For the Sich Room.

Seasonable Clothing.—Mothers who want to keep their children out of the sick-room, so liable to be constantly occupied during this changeable season of the year, will take care to see that they are properly clad, so that they will not be constantly contracting colds. The first approach of cold weather should lead every mother to bring out the winter clothing, and see that her little ones are properly protected from the changing temperature of these autumn days.

Fasting as a Remedy.—The old notion represented by the adage, "Stuff a cold and starve a fever," was long ago proven to be based upon a false notion of disease and treatment; but there are conditions in which the "starvation cure" may be advantageously employed. For example, acute articular rheumatism is a malady which seems to be controlled in a remarkable manner by abstinence from food for a few days. Acute congestion of the liver is also greatly benefited by the same remedy. We believe also that abstinence from food and copious water-drinking is a most excellent regimen for a recent cold.

CONSTIPATION IN CHILDREN.

IMPROPER*diet or an inherited weakness often give rise to most serious constipation of the bowels in infants and young children. When neglected, these cases result in serious injury, the constipation often producing prolapse of the rectum, hemorrhoids, and even worse conditions. An inactive state of the bowels is very likely to be attended by the development of intestinal

worms of various sorts. Chorea, convulsions, and various forms of nervous disease are also likely to arise in this way. The system of a young child is very susceptible to morbid influences, and hence suffers most profoundly by a disturbance of the eliminative process, which is naturally carried on by the bowels. The condition of general poisoning thereby induced, is indicated by the peculiarly offensive breath of a constipated child. The poisonous matters which are or should be eliminated through the bowels, are retained in the system, or reabsorbed, and thus every tissue is clogged and

every function disturbed.

TREATMENT. - In the first place, the food must be carefully regulated. Oatmeal gruel, well boiled, with milk added, is an excellent food. Barley and graham gruel are also useful, especially in cases in which there is acidity of the stomach. Such treatment should be given as will improve the general health of the patient, as habitual constipation is sometimes due to a low state of the nervous system and general weakness. A tepid sponge-bath should be employed daily, a little salt being added to the water on alternate days. Each day the body should be thoroughly rubbed, the bowels receiving most careful attention, being kneaded faithfully for fifteen or twenty minutes twice a day. A fomentation should also be applied to the bowels once a day, and more frequently when there is pain, as is usually the case when the bowels are hard and swollen with gas.

When the bowels cannot be made to move at least once a day by these measures, the enema must be resorted to. In ordinary cases the warm water enemas should be used; but in cases in which there is a tendency to prolapse of the rectum, cool water should be employed. When the inactivity seems to be due to a want of expulsive power on the part of the lower bowel, the stools being of proper consistency, not hard and dry, a very small quantity of cold water, or two or three tablespoonfuls of water to which two or three teaspoonfuls of glycerine or a little castile soap has been added, may be advantageously used. A small quantity of olive-oil, used by emena, is also very effective in these

cases.

The frequent employment of purgatives and laxatives is a serious injury to any one, but particularly to young children. The practice has very often laid the foundation for life-long disease. The notion some mothers have that their children need a purgative periodically to prevent their becoming bilious, is equally productive of harm. One of the most obstinate cases of constipation we ever met was a man aged seventy years, whose mother had believed in the necessity of purgatives to such an extent that she gave each of her numerous family of children a dose of salts regularly every two weeks.

If all the means of treatment suggested are faithfully employed, the necessity for the use of laxative medicine of any sort will be very rare indeed. In fact, we may assert that children respond so readily to simple measures of treatment that others are almost never required.

WITERARY NOTICES.

We have received two numbers of Dio Lewis's Monthly, a new magazine edited by the well-known author whose name it bears. It contains many interesting articles of travel and description, both in our own and foreign lands, and a large variety of articles on practical topics. Many able writers are numbered among its contributors, and with Dr. Lewis at its head this new journal cannot help being a success.

Published by Frank Seaman, 68 and 71 Bible

House, New York City.

Scientific and Literary Gossip.—We have received the second number of a new monthly, bearing the above title. It is filled with notes, news, and reviews in science and literature, and is well worthy of perusal. The present issue, besides much other information on topics of interest, contains a report of the recent meeting of the American Association for the Advancement of Science at Minneapolis.

Published by S. E. Cassius & Co., 41 Arch St., Boston, Mass. Subscription price, 50 cents

per annum.

THE NATIONAL NORMAL.—This is a monthly educational magazine, devoted to the exposition of the normal methods and principles of school management. It is a journal that all teachers and persons interested in educational subjects can add to their list of reading matter with profit.

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Published by the Gazette Printing Company,
Lebanon, Ohio. Subscription price, \$1.00 a year.

The Western Rural.—This excellent agricultural paper has recently assumed a new and enlarged form, and the prospectus promises many excellent features for the coming year. Among other things, it asserts that in the departments pertaining to agriculture there will be no theorizing or guessing, but such plain common-sense treatment of subjects as personal experience and a close observation of the experience of others will warrant. Farmers, stockbreeders, horticulturists, and other specialists in rural districts, will find the paper one of great value to them. It is published in Chicago, at \$1.65 per year.

The Popular Science Monthly for October well sustains its reputation as the leading scientific journal of the country. "The Remedies of Nature,—the Alcohol Habit," by Dr. Oswald, will especially recommend this issue to temperance workers. "The Historical Development of Modern Nursing," by Dr. Jacobi; "Clothing and the Atmosphere," by Radau; and another of the excellent articles on the "Chemistry of Cookery," by W. M. Williams, contribute to make the present issue most readable and instructive.

Published by D. Appleton & Co., 135 Bond St., New York City. Subscription price, \$5.00

per annum.

Onblishers' Page.

Greatly to the regret of the publishers the copy for this number has lain some days in the hands of the printers beyond the usual time for mailing. They will endeavor to make such arrangements as will prevent such an unpleasant delay in the future.

AN OPPORTUNITY .- There is an opening at the Sanitarium for two or three young men to begin the study of medicine. The advantages offered are exceptionally excellent. Competent persons can pay their expenses for board and tuition, for one year, in work, which will be in the line of medical study and experience. The qualifications required arc: 1. A first-class moral character; 2. A fair education : 3. Good health, good manners, and a good disposition ; 4. Willingness to work hard and study hard, and a determination to excel; 5. Satisfactory recommendations. One or two more young ladies can be given a situation on the same terms.

Persons desiring to embrace this opportunity, should address the under-signed, giving full particulars concerning J. H. KELLOGG. themselves.

The Training School for Nurses, announced on another page, will be opened on or before Nov. 1. The course of study and training which has been arranged is of such a practical nature that every mother, or indeed, any one who expects to have the care of the sick, can scarcely afford to be without the information offered. The terms are such that all worthy and competent persons who desire to do so may avail themselves of the opportunity for getting knowl_ edge of the most useful character. At the end of the course, those who are competent will receive diplomas which will enable them to obtain first-class positions as nurses anywhere. We have constant applications for nurses, many more than we can supply, and can guarantee situations to all who become competent to fill them.

On our recent tour through Europe, we had the pleasure of making the acquaintance of a number of excellent Christian people in Naples, Italy, among whom were Prof. A. Biglia and his friends. By a letter received a short time since, we are glad to learn that the recent terrible disaster in that country, by which several thousand persons were destroyed upon the Island of Ischia in the Bay of Naples, did not involve any of our friends, although some of them were in the habit of visiting the island, but happened to be elsewhere at the time of the earthquake.

We have just published a new and enlarged edition of the "Ladies' Guide in Health and Disease," which has proven to be one of the most useful and popular of the various health works which we have presented to the public within the last few years. The aim of the book is to offer such information as will enable mothers to rear their daughters to healthy womanhood, to prevent the majority of the numerous ailments to which the sex is subject, by avoiding their causes, and to employ such simple but effective means of treatment as will cure a large share of the allments referred to. The Western publishers, Messrs. W. D. Condit & Co., of Des Moines, Iowa, are meeting with excellent success in introducing the work, and can give lucrative employment to persons adapted to the business. Persons residing in the East, who desire an agency for the work, should address HEALTH PUBLISHING CO., Battle Creek, Mich.

We are thinking of adding to the journal, beginning with the next volume, a Domestic Medical Department. We are aware that this will be considered quite an innovation, possibly a questionable one, especially by our medical brethren, as there is a very decided prejudice against the instruction of the common people on medical subjects, and we have considered the matter long and carefully on this account. Our conclusion is, that the people have a right to all the information they are able to comprehend and make good use of on every subject. The simple fact that such knowledge may be abused, is no proper argument against its presentation, since all knowledge may be abused. We are prepared to add this new department to the journal if it is wanted, and will leave our readers to decide the matter. We shall be glad to hear at once from those who are interested in the matter.

Our experimental cookery department is already in full operation, and with the beginning of the new year, Mrs. K., who has it in charge, will begin a series of practical articles on the subject of "Healthful Cookery," which will run through the year. A school of cookery, with excellent facilities for instruction, will be opened very soon.

We are glad to be able to give our readers this month the very readable letter from Rev. A. Norton, an independent missionary in India. Many will remember having met Mr. Norton while he was on a visit to this country a few months ago. He carried to India with him a supply of our health literature, and we trust will be instrumental in sowing the seeds of reform in that benighted land. We shall be glad to hear from him often.

Battle Creek College, which has been closed during the last year, has recently again opened its doors to students, and has nearly its former number at this season of the year. With our excellent friend, W. H. Littlejohn, as president, a full corps of competent instructors, and the sympathy and co-operation of the community, the future prosperity of the school seems assured.

THE POCKET FILTER.



Foul water has by modern scientific in-vestigations been shown to be one of the vestigations been shown to be one of the most prolific sources of acute diseases dangerous to life. It is also well shown by careful sanitary surveys, that a very large proportion of the water used for drinking purposes is utterly unfit for use, and in the highest degree unwholesome. The Pocket Filter is an ingenious device, by the use of which a person may be at all times protected from the dangers mentioned. It is always ready for use, the filter itself being dropped into a pitcher, pail, river, spring, or even a a pitcher, pail, river, spring, or even a muddy pool, while the drinker applies his mouth at the other end of the flex-

ible tube attached.

The African explorer and his men
were supplied with this useful little article, as well as the

were supplied with this useful little article, as well as the soldiers sent out by the English government on the Ashantee expedition. They are manufactured only in London, England, and we have them imported in quantities. The Filter is so small that it can be carried anywhere in a valise, or even in the coat pocket. It is put up in a nice tin case, and will last a lifetime with proper care. The cut shows how it may be used as a syphon, it being only necessary to start the stream by suction with the lips, when the filtration will continue until the upper vessel has been emptied. emptied.

Price, by mail, post-paid, \$2.00. Address, SANITARY SUPPLY CO., Battle Creek, Michigan.