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THE NATIONAL HEALTH MAGAZINE



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LIFE AND HEALTH

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Life & Health

THE NATIONAL HEALTH MAGAZINE

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AIM: To assist in the physical, mental, and moral uplift of humanity through the individual and the home.

PUBLISHED MONTHLY

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WORTH PASSING ON

As bees make their own queens, so we make our presidents.

❦

Sanitation is economy: it is cheaper to prevent disease than to cure it.

❦

When one thinks, he is apt to dry out. It is the man who does not think that stays wet.

❦

The liquor business not only despises law, but it despises the highest state of womanhood.

❦

"Personal liberty," asked for by the liquor seller, is personal license to debauch his neighbor.

❦

Any business that depends for success on crucifying the weaker brother, is a godless institution.

❦

That boy was not so far off who on examination said that the office of the gastric juice is the stomach.

❦

Liquor Logic: "Here is a law that is being defied. We should abolish the law that the law-defying power may live."

❦

If slavery was a pollution to the flag, what can we say of the liquor traffic, which creates crime, pauperism, and insanity?

❦

The best law in the world will not work itself, but an intelligent public opinion will get good work out of even an inferior law.

❦

Every time a liquor license is issued, it legalizes the sale of liquor, and also legalizes the crimes that always result from the sale of liquor.

❦

The women as a body are against the saloon. If they are wrong on this proposition, it is the first time they have been wrong on a great moral question.

❦

Liquor Freedom: "Not only should the individual have the right to exercise his freedom as he pleases, but he should be the sole judge of when his acts affect society."

❦

The annual expenditure for alcoholic beverages in the United States is a sum sufficient to pay the premiums upon a life insurance of \$40,000 for every white man dying in this country.

❦

There is no people on this earth that can pull down the stars and stripes; but there is a people in our own country that can pollute the flag, or allow it to remain polluted, by association with the liquor traffic.

❦

There are but three animals that habitually use tobacco,—the rock-goat of Africa, whose stench is so insufferable that no other animal can approach it; the tobacco-worm, whose intolerable visage gives every beholder a shudder; and the third animal— who is he?

AIDS TO HEALTH RESTORATION¹

D. H. Kress, M. D.



AN Irishman who missed the train, when asked why he was late, replied, "Sure, I took the short cut." Many fail to get well because they try to find short-cut routes to health. There is a constant but ineffectual search for something that will counteract the results of transgression.

Some take their diseased stomachs, livers, and nerves to the doctor in much the same way that one takes a pair of shoes to a cobbler, saying, "I want these repaired by Wednesday morning." They expect stomach or nerves to be repaired in two weeks or a month. They say, "Doctor, I can not stay longer; if you can not fix me up, I will go elsewhere." This impatience may lead the physician to give them something that will make them *feel* better, when really they are no better. Men and women want to feel well whether they are well or not, and anything that will bring this about is welcomed. This is responsible for the prevalent use of patent medicines and drugs.

The Deception of Drugs

Riding with a gentleman, I noticed that his horse was short-winded, and hardly able to move. He told me he had bought him the day before, and thought he was buying a fine horse. The horse, which at the time of purchase looked well and appeared full of life, had been drugged, in order to make a sale. Drugs do for patients just what they did for that horse. The physician is often tempted to give something to his patients to make them feel better and appear better to their friends. Because patients insist on being made to feel better at once, the physician is almost compelled to resort to harmful drugs.

A person who is out in the cold thinks he is warmer after a drink of whisky, but he is really colder. Because of the deception caused by the liquor he does not realize his danger. Should his in-

ternal temperature be taken, it might be found to be two or three degrees lower than it was before taking the drink. Pain is nature's protest,—a means of correction. Should an injection of morphin or cocain be made into your arm, you could let the hand remain against a hot stove and not feel it, because morphin severs the telegraphic communication between the seat of pain and the brain. It is unwise to pull down nature's danger-signals so long as danger exists. Yet this is what is being done every time one takes a headache powder. Drugs that bring about such results are dangerous, and should be avoided.

Many chronic invalids habitually take some pet drug, believing it to be the only thing that keeps them up. They recommend it to their neighbors and friends. And yet that which they depend upon to keep them up, is in fact keeping them down. There are many drug slaves in the United States. Coffee and coca-cola contain the same drug. Other soda-fountain drinks contain drugs. One who drinks one of these for a headache, feels better, but he is not better. People accustomed to taking these drugs imagine they can not get along without them.

Rational Restoration

To get well requires time. It can not be done in a few minutes. A gardener can not build up a sickly plant in a day. He does not saturate it with alcohol or patent medicines. He places it where it can have the benefit of sunshine and rain, and then he digs about it. In time the pale leaves take on color, and the plant is restored to health. With confidence, the gardener goes about the work of restoring sickly plants to health, and he is seldom disappointed. We can go about the work of restoring sick bodies to health with the same confidence. When plants are sick, there is a reason. Perhaps they have not had the benefit of the sunshine. When men and women shut themselves up in illy ventilated

¹ A lecture given to patients at the Loma Linda Sanitarium.

rooms, deprive themselves of air and sunlight, eat pastry, and drink tea, they, too, become pale and sickly. When sickness comes, nature says, "You are doing something you ought not to do." To continue our wrong course and then take something to cover up the symptoms or to hush the warning voice, is unwise.

In our treatments we try to aid nature in health restoration. Massage, electricity, and hydrotherapy are of value chiefly because they improve the circulation of the blood through the diseased parts, and thus hasten repair. Every six weeks the blood undergoes a complete change. The average life of a blood corpuscle is only six weeks. By careful living, diseased corpuscles may be replaced by healthy corpuscles in six weeks. The cells of the liver undergo a complete change every three months. By careful living, the man with a diseased liver may have a new and better liver in three months' time.

If an injury to the hand is carefully dressed, healing quickly takes place. But if we allow dirt or other irritants to get into the wound, it will heal slowly or become a chronic sore. If we were as careful regarding what we put into an injured stomach as we are of an injured hand, nature would be as faithful in making stomach repairs as she is in repairing the hand. Irritants, as spices and highly seasoned foods, taken into the stomach, interfere with nature's efforts.

The Mental Attitude

We differ from the animals in that we are responsible beings. An animal has no conscience, and is irresponsible. When an animal is sick, it does not worry about its sickness nor about the outcome. Its mental attitude does not resist nature's healing processes. It goes out into the sunshine, takes the rest-cure, and recovers. But if we have rheumatism in one joint, we expect other joints to become affected. We look forward to the time when we may be crippled up and dependent upon charity. We worry about it. This mental attitude retards restoration. An animal can not exercise faith; but man can, and for this reason

his recovery may be more rapid than that of the lower animal. In coming to the sanitarium it is necessary to study in order that we may develop confidence in the methods employed, and intelligently go about the work of getting well, exercising faith in the remedies that are employed.

I know of nothing more stimulating than a good sea bath; yet two persons may take such a bath at the same time, with very different effect. One, having studied the effect that the cold water will have upon his circulation, plunges in, and in a short time comes out and takes a vigorous towel rub, and feels stimulated and well repaid. The other, doubtful about the benefit of the bath, goes in with some misgivings, his lips turn blue, and he goes into a chill. His mental attitude prevented a reaction, and he is injured by the bath.

The same holds in the matter of diet. Man should study what is best for him to eat, and then eat it and expect good results. Of two men eating the same kind of food, one may receive benefit, and the other injury, on account of the mental attitude. In order to get the most good out of even the best food, it must appeal to the mind as well as the appetite. This can only come from study and an intelligent knowledge of food values.

Influence of the Mind

The mind has much to do with the restoration of health. Some years ago I was giving a lecture in Australia, in which I made mention of the need of cheerfulness, and how we might help one another by talking courage. At the close of the lecture a gentleman stepped forward and said: "Several years ago when I was editor of a paper in the United States, I felt so ill one morning I thought I could not go to my office, but the work was so pressing that I started. On my way I met a friend who said, 'Good morning, Mr. ——. You are not looking well this morning.' In a little while I met another missionary of the same kind, who said, 'Good morning, Mr. ——. You are not looking well,' and advised

me to go home, and I did. I went to bed. The next morning I again started for my office, still feeling so poorly that I was on the point of turning back when some one met me, who said, 'Good morning, Mr. —. This is a beautiful morning. You are looking fine.' This gave me new courage, and I went to the office and began work. The longer I worked, the better I felt. I came home that night feeling better than I had for many days." Imagine my surprise when he turned and said, "Dr. Kress, the man who encouraged me that morning was yourself." It did not cost me much to give my friend a little uplift that morning. In fact, it was done unconsciously. It was a very little matter, but it meant much to him.

Patients are apt to talk over their troubles and their symptoms with one another. This is unfortunate, for it does not help them. By a comparison of notes, each soon develops the symptoms of all the others. A young man who was trying to forget his symptoms and refused to talk about them, had cards printed, on one end of which were the words: "I have troubles of my own; don't tell me yours." These cards were handed to all the patients. They placed them in their top vest pockets. When one began to talk about his symptoms, the others would simply pull up their cards. The little device worked like a charm, and helped to bring about quite a reform in the conversation of my patients, and it was an appreciable aid to their recovery.

Live in the Sunlight

There is always something to be thankful for. Of two people who pass through a garden, one may say, "O, look at the beautiful roses and pinks!" and the other may say, "See the ugly thorns!"

"Two men looked out of their prison-bars,
One saw the mud, the other the stars."

We have power to look down or up; what we see depends upon how and

where we look. It requires effort to look upon the bright side; but if our cruse of comfort is failing, our hope lies in sharing it with another. Giving is living, denying is dying. He who determines never to cast a cloud on the pathway of another, but lives to encourage and help the unfortunate, has a valuable aid in health restoration. We can not expect to be at our best every day, for we all have infirmities. We can not expect to feel just as we would like day after day. I do not feel well every day myself, but I am not going to tell you all about it when I feel bad. I am going to keep it to myself.

Bad feelings are not necessarily a bad omen to those who are ill. Sometimes when we are feeling the worst, nature is actually doing the most for us. It is true a person who is perfectly well feels well, but with a person who is regaining his health it is different. When the most is being done for him by nature, he sometimes feels the worst. This is because of changes taking place within the body. The whisky drinker feels worse after giving up drink for a few days, but he is not actually worse. He has just entered the pathway to health. So with the tobacco user, the tea drinker, or the drug fiend. When we give up that which we know to be wrong, and are learning to live in harmony with the laws of health, it is our privilege to believe that the Lord will add his blessing.

Another aid in health-giving is morning worship. The promises of God bring rest and quietness to troubled hearts. There is health in singing. Whether we feel like singing or not, let us sing and enter into the real spirit of the worship, and we shall receive help from it. I know of no exercise better for the health than singing. It has a good mental effect, and it improves the circulation of the blood through the organs of digestion.

NERVE EXHAUSTION

George K. Abbott, M. D.



IN these days of rush and hurry there are few city dwellers who escape the strenuous life. In consequence, nerve exhaustion and nerve weakness (neurasthenia) in a great variety of forms are becoming more and more common. Business cares and worry, with little or no time spent in outdoor work and real recreation, are largely responsible for the rapidly increasing number of neurasthenics among business and professional men. A hurried midday lunch, and a heavy dinner at six or seven in the evening, are also indirectly responsible for nervous disturbances, by throwing upon the digestive organs burdens entirely out of season. Evening banquets are especially to be blamed for headaches, sleeplessness, and many other manifestations of exhaustion of the sympathetic nervous system.

Why the "Blues"?

Then there are those who at irregular intervals, because of anxiety and worry, have attacks of mental depression, sometimes amounting to melancholia. Such persons have an "all-gone" feeling, associated with a sensation of weight and heaviness in the abdomen. Dr. Abrams has not inaptly styled such a condition "the blues," and has especially called attention to the immediate cause of these abdominal symptoms. He has shown that severe worry in susceptible persons causes a marked weakness of those sympathetic nerves that control the blood-vessels, and especially the veins, of the abdominal organs. These veins are of great capacity, and when paralyzed from worry or other causes, are capable of such extreme distension as to withdraw from active circulation a great amount of blood. The feet and hands, but especially the feet, are habitually cold. The congestion of the brain, brought about by mental overtaxation, only adds to this unpleasant condition.

As women enter more into the com-

petitive employments of life, nerve exhaustion among them is increasing at a rapid rate. This is probably due to the greater delicacy and sensitiveness of the nervous system in women, and consequently their greater susceptibility to nerve disturbances. In the case of women in better circumstances, the quietude of home life is left behind for a continuous round of social duties in the mad rush for social advancement and amusement. Those hours of rest when the body should be replenishing its store of energy for the duties of another day are worse than wasted in parties, sociables, and society functions. Not many years of such prodigality are required before the reserve physical forces of the body, especially the nerve force, are exhausted. This leads to headaches, backaches, and fleeting, illusory — though none the less real — pains in various other parts of the body. These are accompanied by nervousness, restlessness, and irritability.

In our high schools and colleges there is each year an increasing number of cases of nervous prostration and acute insanity due to overstudy, and in the case of young men, to the additional cause found in indulgence in cigarettes and lighter alcoholic liquors. Fortunate indeed are those who have inherited a sufficiently strong nervous system to escape actual mental breakdown.

Remove the Cause

To an intelligent public it is of course needless to insist that permanent cure can not result unless all these causes are removed. For those who are not too greatly prostrated, nothing is more beneficial than an extended vacation in some quiet rural retreat or in the mountains or at the seashore. The patient is thus removed from those surroundings that constantly remind him of his cares and perplexities. He is care free, and can devote time to pleasant and profitable

recreation in the woods and fields, tramping over the hills and valleys, or to rowing and similar exercises where such are available. Gardening, horticulture, and floriculture are especially conducive to absorbing the thought and attention of the neurasthenic, and are unequalled in overcoming his introspective tendencies and morbid state of mind. Of course these same occupations may be engaged in at home as a preventive of neurasthenia, and as a help in its treatment when once it has been acquired.

Much has been written about the rest-cure, but less interest has been taken in the work-cure for neurasthenia. However, a Boston physician, after five years of systematic endeavor along this line, reports most excellent results from regular employment at agreeable manual work of various kinds for an appropriate length of time each day.

Avoid Stimulants

In case of nerve exhaustion, it is especially necessary that the nerve tone be restored by such means as will not over-stimulate. Nerve stimulants are not nerve tonics. The superstition that nerve tonics may be administered in teaspoonful doses from a bottle is a guaranty of commercial success to the unscrupulous manufacture of patent medicines, and an equally certain guaranty of physical bankruptcy to the user of such "nerve tonics." Sir William Broadbent has in very apt language given a correct idea of the outcome of such *stimulation*. He says:—

"A falsehood that dies hard is the idea that stimulants of whatever kind actually give strength, and are necessary for the maintenance of health and vigor. Such is not the case; and the well-worn comparison that they are the whip and spur, and not the corn and grass, is strictly accurate. Anything accomplished under the influence of stimulants is done at the expense of blood and tissue, and if frequently repeated, at the expense of the constitution."

Tonic Treatment

However, within easy reach of all, are means that may be employed with benefit, and, when intelligently used, are capa-

ble of the greatest possible good in the restoration of nerve tone. Most important among these means are sunlight and tonic baths. It has been experimentally demonstrated, and is also a matter of clinical experience, that sunlight is a most effective tonic to both nerve and muscle. After proper, judicious exposure to sunlight, the muscles are able to withstand fatigue longer than otherwise. The same is true of various forms of cold bathing, such as the cold sponge bath, cold shower-bath, and the cold mitten friction. Not only is the muscular power enhanced by such means, but fatigued muscles may be restored to their usual power. Those who find it difficult to react to cold baths may better prepare themselves by standing in a tub or pail of hot water while taking a cold sponge or mitten friction, or in using the cold shower, by preceding it with a hot shower. When some one can be secured to administer treatment, much benefit may be derived from the application of the fomentation to the spine, followed on removal by rubbing with ice the part covered with the fomentation. This procedure should be repeated about three times, and concluded by briskly rubbing the entire body, one part at a time, with a rough mitten dipped in cold water, and quickly drying with a Turkish towel.

Those who are afflicted with a feeling of heaviness and weight in the abdomen will derive much benefit from the daily use of the cold rubbing sitz bath. In the absence of a more elaborate equipment, fill an ordinary wash-tub with cool or cold water to a depth of about eight inches, and beside it place a large pail of hot water. The person to be treated first places his feet in the hot water for a few minutes, and then, with the feet still in the hot water, sits down in the cold water, while an attendant rubs briskly the parts covered by the water. This treatment may last three or four minutes, according to the ability of the person to react. The

(Concluded on page 575)

STANDARDIZING THE HUMAN MACHINE

F. W. Fitzpatrick

[When sometimes a little human experience seems to run counter to all the hoary-headed theories, some would say, "So much the worse for the experience!" But with the individuals themselves who have had the experience, the theories that once held them are overturned forever.

It should not be forgotten that there is a golden mean from which we are liable to wobble one way or the other according to our temperament. There is certainly a place for calories and protein and prescribed dietaries, and sometimes they are needed; but to some patients they become a taskmaster, binding on burdens that the poor fellows are unable to bear; and they go groaning down to their graves.—Ed.]



AN interesting writer tells us, in the *Saturday Evening Post*, how he, having passed the forty mark, had put on enormously of flabby fat, which had incapacitated him physically and mentally. He realized that before long, if he continued his old form of living, fat would choke off heart and the other essentials, and, bang! there'd be one less fat man.

Reducing Fat

Being anxious to stay about a bit, and to enjoy the staying, he began antifat treatment. He had one renowned doctor after another examine him at great expense. He took medicine, prescribed forms of exercise, diets, and absolute starvation, but he continued either fat or sick. Finally, he threw overboard all the stuff he had been taking, ignored the doctors, took the exercise he felt like taking, and ate anything he pleased, but sparingly, merely enough to keep life going, so that he enjoyed the eating, and always wanted *more*. At first, it was almost martyrdom, but he soon grew used to it. Now his stomach has grown accustomed to modest stoking, and he has taken off and is keeping off sixty pounds of "excess baggage," enjoys every minute of life, and believes he is fit for another forty years. A pretty sound though perhaps unscientific mode of living.

Personally, I can stamp it not only with approval, but also with a verifying O. K., for it's a scheme of life I've followed for years. I, too, am over forty,—right at the brink of fifty,—with a strong tendency toward fat, but persistently keep at 180 pounds, which is not excessive for five feet ten. True, I sup-

plement our friend's moderate eating with an abundance of exercise, tennis, horseback riding, walking, anything that comes along, but have been accustomed to it all my life, and could not let go now if I tried. But I realize that it is the cutting down on the food supply, the keeping in a state of semihunger, though eating moderately of everything, that keeps me so well and in such fit condition, full of good health and good humor, with not one headache in twenty years, capable of exertion that would balk a twenty-year-old, and generally thought to be about thirty-five.

So much for personal corroboration. What I really started out to tell but took some time to get to, was how the same general disregard for "calories" and "proteins," and the application of common sense, put fat upon a living skeleton, health and happiness into a near-wreck.

Cured by Brutality

Briefly, I relate the story of a friend I have known for thirty years. Twenty-five years ago he was and had then been for ten years a haggard, forlorn dyspeptic, worn to a shadow, and cursed with insomnia. He had spent a small fortune on doctors, health resorts, sanitariums, and quackery, but without relief. His appearance and thoughts and conversation seemed adapted to a funeral occasion. He was six feet one, and weighed one hundred five pounds, all bone. His business was going to smash, and he was too ill to pay attention to it. He was a childless and familyless widower, absolutely alone; and, altogether, life to poor Charlie was certainly a blank.

Twenty-five years ago last Christmas

I happened to meet him, and insisted upon taking him home to dinner. He protested, saying it would be hard on us and on him. Ours was — and, thank Heaven, still is — a very large and jolly family. I realized it would be a sort of gloom at the feast, but, nevertheless, I took him home with me pretty nearly forcibly. At table my wife, one of the most sensible little women in the world, simply refused to give him his frizzled toast and scraped raw beef, or whatever freak starvation diet he was then following on the advice of one of the top-notch specialists in the country. She told him to go ahead and eat like a man for once, forget his foolishness, and get into the procession, or words to that effect. I was amazed, and he was aghast, and swore that these Christmas dishes would certainly kill him.

She retorted, as it seemed to me most brutally, that he would at least die with a full stomach, and wasn't worth much alive as he was, anyway. It all surprised me immensely, for normally she is the personification of motherliness and gentleness, but, she told me afterward, she had felt for a long time that he was but the victim of fads, and had made up her mind to get a full dinner into him if she had to use a funnel, and was sure it could not possibly make him worse than he was. Well, he dazedly succumbed. At first, he ate about as cheerfully as a condemned prisoner marches to the gallows, but gradually thawed out,

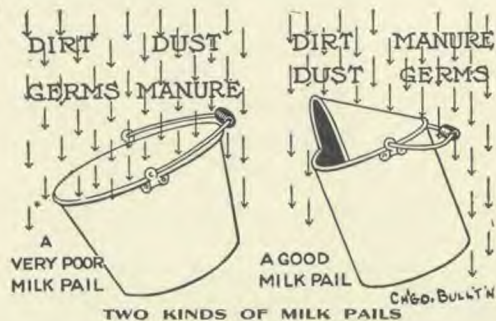
and ultimately became actually cheerful, and wound up by eating really more than I did. Naturally I expected fireworks, a doctor, and a very sick man on my hands, and internally resented the good wife's recklessness.

A New Lease of Life

In the afternoon he went ice boating with us (we lived on the edge of Lake Superior then), and seemed to have as much fun as any of the children, and further surprised me by coming back with us to a late and unusually heavy supper.

Next morning I was really worried, and telephoned an anxious inquiry to him. He hadn't felt a bit of discomfort, had slept all night, was then eating a normal breakfast, and would be hanged if he ever went near a doctor again, and incidentally thanked God and Mrs. Fitzpatrick.

This was the reform, rejuvenation, and physical salvation of Charlie. To-day he is a robust man, weighs 196 pounds, never needs a doctor, doesn't know he has a stomach, sleeps like a log, eats moderately of anything and everything, plays a superlatively fine game of tennis, is married again, and has two healthy children; and in business he is more than prosperous, for he is a secondary officer in one of the big trusts. This was all the result of using a little sense instead of abusing one's self with a lot of pseudo-science and "calories" and "proteins."





MILK AND ITS PRODUCTS

George E. Cornforth

WE are sometimes asked why we use milk, which is an animal product, while we do not use meat. In answer we would say that milk does not contain the waste products of broken-down tissue which are produced by the life and activity of the animal, and which constitute a great objection to the use of meat as food. Milk was made to be eaten, and it is the natural food of young animals; but the animals themselves, we believe, were not made to be eaten. Cow's milk is the natural food of calves, but not the natural food of babies; hence it has to be modified to be made into a good food for them. It is not a natural food for adults, though many find that it agrees with them very well; and in the form of soured milk, it may be regarded as a valuable food, the lactic acid seeming to exercise a restraining influence upon putrefactive processes in the intestines. Of course, milk should be obtained from healthy cows, and handled in a sanitary manner; otherwise it will contain disease germs, and be open to nearly the same objections as diseased meat. In fact, milk handled in an unsanitary manner is positively dangerous, for it readily conveys the germs of scarlet fever, diphtheria, and typhoid fever.

Because it is practically impossible to obtain milk that is clean and pure and produced by healthy cows, we can not esteem milk and cream and butter as highly as foods as we do the foods from the vegetable kingdom, which we have been studying; namely, the fruits, grains, nuts, and vegetables.

Another fact in favor of milk is that it is not kept in cold storage, as meat is, till its protein element is far advanced in decay before it is considered fit to eat.

FOOD VALUE IN CALORIES PER OUNCE

PRO.	FAT	CAR.	TOTAL
3.8	10.6	5.8	20.2

By looking at these figures, we see that half the nutritive value of milk is fat, and nearly one fifth is protein. Remembering that, expressed in calories, only one tenth of our food needs to be protein, we see that milk is one of the foods that may be used to supply the place of meat, and needs to be used with foods that supply more of the carbohydrate food element. Thus we see that the custom of eating bread with milk, which experience has taught us is right, is right scientifically also. With the exception of legumes, skim-milk is the cheapest source of the protein food element. It might with advantage be used more than it is in the diet of persons to whom economy is important.

Expressed in per cent, milk is 87% water, 3.3% protein, 4% fat, and 5% carbohydrate. This carbohydrate is milk-sugar, the least sweet and one of the most easily digested of sugars.

Milk is really water holding in solution a little mineral matter, sugar, and albumin, and having suspended in it little globules of fat, each held in a minute sack made of casein. These little sacks of fat, being lighter than the surrounding liquid, rise to the top in the form of cream.

Milk is generally thought of as a liquid food, but it is liquid only when sweet. In the stomach it soon curdles. If it were regarded as a food, and were eaten instead of drunk, it would digest with much less difficulty. The calf and the child get their milk in a fine stream. It would be much better for other users of milk if they would take it in a similar way, as through a straw. When swal-

lowed in large gulps, it forms large, hard curds in the stomach, which the digestive juices have difficulty in dissolving. And we shall see that it would be even better to allow it to become solid, as in the preparation of artificially soured milk, and eat it with a spoon. Sour milk is commonly thought to be spoiled milk, but milk which has simply turned sour is a better food than sweet milk. Regarding milk as a beverage instead of as a food has a tendency to lead to its use after a sufficiency of other food has been taken; this may be the reason why some who use it find it indigestible. When milk is taken with bread, as in eating bread and milk, the milk can not form large, hard curds in the stomach, and persons often find they can take milk in this combination when milk taken alone disagrees. Of course, in eating bread and milk care should be taken to masticate the bread sufficiently.

Milk is thickened or coagulated by acid and by rennet. Cheese is the casein of milk coagulated by rennet and separated from the whey. When first made, it is tough and tasteless. A process of decomposition must go on in it to render it tender and develop flavor (it must be allowed to ripen) to make it palatable (strange that we should like such flavors). There are certain different bacteria which produce certain different flavors in cheese, and these differently flavored cheeses have been given different names according to their flavors; and in Europe, where cheese making has been reduced to a science, I understand that any desired kind of cheese is made by introducing into the curd when first made the bacteria which produces that particular kind of cheese.

When milk sours, the sugar of the milk is turned to lactic acid by the lactic acid bacillus, which is always present in milk. The growth of this germ is encouraged by warmth and electrical conditions of the atmosphere. This lactic acid causes the milk to coagulate. Other acids added to milk will produce the same result. The curd formed in this way is made into cottage-cheese. The acid gives to this

cheese an agreeable flavor when fresh. It is therefore used soon after making, and is a wholesome food.

Milk should be kept in glassware, earthenware, aluminumware, or granite-ware vessels, not in dishes made of metal, upon which any acid formed in the milk might act. Milk readily takes up germs, and absorbs odors. It should therefore not be allowed to stand uncovered, nor to remain near anything having a strong odor; and it should be kept at as low a temperature as possible. But milk should not be so tightly covered as to exclude air from it, for the absence of air favors the growth of germs of putrefaction. Several layers of cheese-cloth may be used as a cover. In fact, it is impossible to be too careful in the care of milk and of the dishes in which it is kept. All dishes that have contained milk should be thoroughly cleaned before milk is again put into them, for just a little of the old milk will cause the new to sour.

In washing milk dishes, rinse them in cold water before putting them into hot water, for hot water used first would harden the albumen and cause it to adhere to the dish, especially in the corners and seams. After washing in soap-suds or water in which washing-soda has been dissolved, rinse thoroughly to remove all the soap. It is well then to place them where the air and the direct rays of the sun will have free access to them.

Cream, of course, contains a larger amount of fat than does milk, its richness depending upon the proportion of fat. Based upon the figures in the government Bulletin upon which I am basing the figures in these lessons, the food value of cream in calories per ounce is —

PRO.	FAT	CAR.	TOTAL
2.9	48.9	5.2	57.0

The fat in milk and cream is in a very finely divided or emulsified state, for which reason it is one of the most easily digested forms of fat.

Unless it is absolutely certain that milk is obtained from perfectly healthy cows and is handled in the most sanitary manner, it is unsafe to use it without first sterilizing it. It is certainly far better

to use only milk from healthy cows, produced in a sanitary manner. Sterilizing produces some change in the milk, which may be the cause of scurvy in children to whom it is fed. It also renders the casein a little less easy of digestion. Children who must be fed upon sterilized milk may be kept from having scurvy by giving them a little orange-juice between the feedings of milk. Pasteurizing is generally recommended instead of sterilizing. To Pasteurize milk a thermometer is necessary. Heat the milk quickly in a double boiler to 158° F., and keep it at that temperature for twenty or thirty minutes. Then cool it quickly. Milk treated in this manner will not cause

scurvy, and its flavor is not altered.

To sterilize milk, heat it quickly in a double boiler, and keep it at the boiling-point for fifteen or twenty minutes, then cool it quickly; or put bottles of milk, which have stoppers of sterile cotton, in a kettle of cold water, heat to boiling, and keep at the boiling-point for fifteen or twenty minutes, then cool quickly. Care should be taken to place something under the bottles to prevent their resting on the bottom of the kettle.

There are persons who find hot milk more easily digested than cold, perhaps on account of the stimulating effect of the heat upon the stomach. Hot milk should be taken slowly in very small sips.

NERVE EXHAUSTION

(Concluded from page 570)

cold water causes contraction of the large veins of the abdominal organs, and by driving the blood out of these parts, relieves the congestion and consequent feeling of weight. The sympathetic nerves are also directly toned up, and the feeling of depression is relieved.

Many other simple means of preventing and relieving nerve weakness might

be mentioned, but all those already described are such as can be carried out successfully in almost any home. As in the use of all natural means of cure, the patient must not expect to be relieved by one treatment. To build firmly a new foundation for health when once it is lost requires time and patient, persevering effort.



THE GIRLS' SWIMMING-BATH, CADBURY WORKS, BIRMINGHAM, ENGLAND



SIMPLE METHODS OF INFANT FEEDING

THERE have been so many plans proposed for the modification of milk, some of them quite bizarre to say the least, that it is refreshing to read such an article as that by Dr. David J. Levy, as read before the Academy of Medicine, Kalamazoo, Mich., in which he states:—

“The major portion of the primary blame for infant mortality has been lifted from the milk itself, to other causes.” “Impure or contaminated milk is now responsible for only a share of the sickness and death of infants.”

“We must look to-day for predominant influence in this respect to heat, housing, clothing, and our own feeding methods. Experience proves that we can aid most effectually in the infant-welfare movement, can reduce the mortality . . . by employing simple feeding methods—by prescribing simple directions that the mother can carry out.”

This is in refreshing contrast to impossible formulas prepared by our baby specialists, who have vied with one another of late in the attempt to befog both the mother and the nurse. As to simplicity, Dr. Levy says:—

“The least-understand nurse can prepare the proper milk mixture. It is simply necessary to say, for instance: ‘Take a pint of milk and a pint of water, and add an ounce and a half of milk-sugar, and divide into five feedings. Give every four hours.’ There is no need to prescribe a complicated formula. . . . These instructions . . . serve to befuddle the mother or nurse or to discourage her to the point of driving her to use proprietary foods which are more convenient and simple to prepare, or to the early use of whole milk. In fact, many of the published tabulations [he refers here to the directions given by milk specialists] are fallacious and unsafe guides.”

Dr. Levy also favors a long feeding interval, in favor of which he says:—

“A long feeding interval acts in a twofold way, and is an advantage to the baby. The child has opportunity to empty its stomach,

. . . and it demands less frequent attention from the mother and nurse, who . . . need not slight the child, nor hurry it through its feeding.”

He particularly emphasizes the value of a long interval in breast-fed children, as it permits the mother to attend to her domestic duties without neglecting the baby, and the mother’s strength and patience are conserved. And the adoption of this sensible schedule enables the mother to defer weaning.

Regarding sugars, Dr. Levy says that maltose dextrin is the best for all purposes, probably owing to its containing dextrin. Lactose, or milk-sugar, may be used with impunity in the case of the well child, although dyspeptic disturbances or constipation are more frequent with its use, and the weight increase does not seem to be so rapid as with the first-mentioned sugar. Cane-sugar he considers permissible.

He sometimes gives one-third milk to young infants, but finds this often insufficient, and that most children are able to bear one-half milk through the first six months. Then two-thirds milk, beginning the use of whole milk about the tenth month. To the dilutions, sugar is added to a definite percentage.

Another departure by this doctor is the early use of fruits and vegetables after the sixth month. These he says are eagerly accepted, and when they are used, there is less demand on the part of the child for an excess of milk.

Any one interested in a further perusal of this article, will find it in the *Journal A. M. A.*, Chicago, June 22, 1912, page 1925. Price, 15 cents.

ARE THEATERS INNOCENT?

THERE are many who assert that the theater is an educational influence (which we admit), and that it is uplifting in its tendency (which we seriously doubt). The theater is undoubtedly educational. No one attends such performances who is not perceptibly changed by them. They afford a diversion, a means of relaxing pent-up nerves, they feed the imagination, and in other ways they give a broader outlook to life.

Some would tell us that in at least the high-class theaters this uplifting influence far outweighs any possible or incidental evil that might be connected with it. We shall not attend the theater in order to determine the truth of this point, but will let a writer more familiar with the subject than we are, bear testimony. Dr. G. Frank Lydston, of Chicago, has written a book on sex hygiene, especially intended to protect boys from the sexual pitfalls into which so many of them fall. One section in his book is devoted to theatricals, and in this he says:—

"The degeneration of the modern stage is evident; . . . the play with an honest moral is out of fashion. There is a certain counterfeit of it in which the gross indelicacy of the play is condoned by the alleged moral. The fraud and deceit are so palpable as to be ridiculous. Now and then the legitimate drama or clean comedy asserts itself, but the average manager is afraid of it; usually it does not pay. Time was when plays that are now eagerly sought both by managers and by the public, would have been hissed off the stage. The occasional variety show of other days is now represented by the vaudeville craze that tolerates exhibitions which would have laid the offender liable to legal complications not so very long ago.

"The better class of players themselves have begun to protest against the prostitution of their art. . . . To the protests on the part of the players the oily manager replies, 'The public demands the class of play of which you complain.' . . . The argument of 'public demand' is absurd."

Lydston attributes the decline in the modern play to two causes,—the innate depravity of human nature, and "the commercial shrewdness of the manager who takes advantage of this human quality for his own ends, and caters to a

depraved public taste." He continues:—

"The effect of such exhibitions upon the impressionable mind of youth is self-evident. The moral lesson alleged to be inculcated by most modern salacious plays is merely managerial hypocrisy—a mercantile apology. A small amount of far-fetched moral instruction can not redeem a mountain of filth."

And much more might be quoted, but this suffices.

IN this age when it begins to be preached that boys can not remain pure until they are grown, is it any matter of surprise that such is the case when every incentive to vice, such as impure reading, impure plays, and a diet that makes purity next to impossible, are placed before them?

Fathers and mothers, as you value the innocence of your boys, look to their diet, their reading, and their amusements, and be pretty sure that the theater is not among their amusements.

As to the effect of the diet on the morals of the young, I will again quote Dr. Lydston, for he has made some very apt statements along this line:

"Good health demands a plain, nutritious, but unstimulating diet. Sex control is facilitated by such a diet. Meat and eggs should be taken in moderation. Persons suffering from irritability or disease of the sexual system, but who earnestly desire to acquire sex control, should adopt a diet as nearly vegetarian as possible. . . . Spices are injurious also to healthy persons who experience difficulty in sex control. They have a most stimulating effect on the sex function."

Speaking of tea and coffee, he says:—

"They are injurious to highly nervous persons and to those suffering from digestive, liver, and kidney disorders; coffee is especially injurious to such subjects.

"Persons with acute urinary and sexual disorders, and those suffering from difficulty of sex control, should avoid them.

"Athletes and those engaged in training the muscles, should take tea and coffee sparingly, if at all. Plain, nutritious food and absolute avoidance of articles of a stimulating character are essential to athletics and muscle building."

And he thus pays his respects to tobacco:—

"Youth is especially susceptible to the evil

influences of tobacco. It undoubtedly interferes with proper development of growing boys. The cigarette habit is especially pernicious in its effect on the young. . . .

"When advising boys as to smoking, too much stress can not be laid upon the argument that tobacco retards development."

Parents who desire to have their boys

grow up into clean, manly men, and their girls into pure, womanly women,—ripe fruit instead of worm-eaten and rotten,—should carefully instruct them as to the influence of all these indulgences which are so tempting to the young, and to them apparently harmless.



WHICH IS HAPPIER, MOTHER OR CHILD?

Child Welfare Congress

THE third International Congress on Child Welfare will be held in Washington, D. C., in May, 1914.

Mothers' Congress

THE seventeenth Child Welfare Conference of the National Congress of Mothers will be held in Boston next spring.

Episcopalians Favor Sex Education

It is encouraging to know that the religious bodies are sensing the importance of warning parents regarding the proper education of their children as regards sex. At the recent Boston convention of Massachusetts Episcopalians, the committee on morals reported the following:—

"We call upon parents to feel their sacred responsibility for judicious instruction of children as to sex and the relation of personal purity to health and happiness. Mothers especially should instruct their daughters, for young women are strangely ignorant in these matters. They should tell their daughters the fearful risk they undergo if they marry men who have led immoral lives. Parents should know the companions of their children, especially the young men with whom their daughters are acquainted."

Federal Children's Bureau

MOTHERS may well rejoice because of the establishment of the Children's Bureau as a division of the Department of Commerce and Labor; for every mother who is a mother will with all a mother's heart feel for the unfortunate children, who, under present conditions, are oppressed, and robbed of their opportunity to grow up into efficient men and women, because of the laxness of present factory laws, and because of inefficient supervision for the poor. And mothers will doubly rejoice that the first chief of the new bureau is a woman, Miss Julia Lathrop, of Chicago, who, by the way, is the first woman who has been made head of any federal bureau.

We trust that, with the cooperation of mothers, Miss Lathrop will be able to render efficient service to unfortunate children.

Interest Is Everything

WE are learning that repression is not the only thing necessary in the rearing of children. Judge Ben Lindsay, one of the best friends the children have, says:—

"The time will come when children will be allowed to whisper and do as they please in open-air spaces instead of schoolrooms, when geography, for instance, will be taught in a ten-acre field and a moving-picture hall, and

with the exception of maps, there will be no books at all. . . .

"Interest is everything in a child's life. We shall appeal to interest. He plays harder than he works simply because he is interested in his play. He will work just as hard as he plays when he is interested in his work. The day will come when truancy will be a thing of the past.

"We pity the Chinese because they bind up the feet of their women. It is wasted pity. We should pity ourselves for binding up the minds of our children."

We heartily agree with Judge Lindsay, and we hope to see the time when education is so reformed as to be in harmony with the natural interests of the child, instead of being an effort to thwart all his interests.

Poison in Penny Soda-Water

In an article in the *Woman's Home Companion*, entitled "The Fatal Penny," Mary Heaton Vorse shows how with one cent a child may buy drinks that will bring actual poison and sickness. Following is an extract from the article:—

"In the city in the summer months our newspapers have an occasional notice like this: 'The poisoning of two children traced to a penny soda-stand on Bleeker Street.' All the minor illnesses from similar causes—those children who merely have acute gastritis or nausea—are not reported.

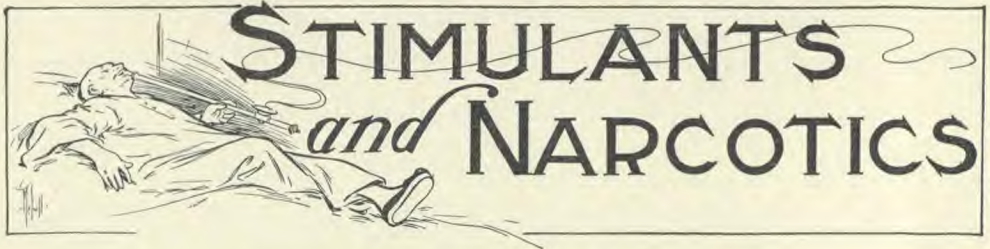
"At the fairs in our little towns, and in the amusement parks, orangeade and lemonade are always in evidence. Before you let your children drink such things, ask yourself if you like them to drink a mixture of water made sour with an acid and a chemical flavoring, then sweetened with a little sugar, and ornamented on the top with a few slices of orange or lemon; for this is what constitutes these drinks. An ingenious powder is bought, from which an enterprising young man can make a whole gallon or more of orangeade for ten cents or less. It is a profitable business for him—and for the doctor."

Do Not Incubate Baby's Milk

We recently read of some advice given in answer to a question in one of the newspapers, which, if followed, might have very serious results. The mother of the baby, who desired to avoid getting up at night and warming milk for the baby, stated her desire to the editor of the department, and the advice was given to place the milk, while hot, in a vacuum bottle. This certainly would keep the milk warm, but it would do another thing, that is, it would enable the disease germs, a number of which are almost certain to be present, to grow very much more rapidly. The baby's milk at all times and under all circumstances should be kept near the freezing temperature, except when it is heated immediately before giving to the child.



WHO DOES NOT ENVY A MOTHER?



WHY I AM AGAINST LIQUOR

[The following article by Wilfred T. Grenfell, M. D., the great apostle to the Labrador fishermen, which appeared in the *National Advocate*, tells the story so well, by one who above all others is capable of judging the effects of liquor, that we are glad to give it in full. Dr. Grenfell has well earned the title of benefactor to an important class of industrial workers. What he has written comes from one who can write with authority.—Ed.]

THE reasons why I have no use for alcoholic beverages on sea or on shore are so numerous that it would be impossible to detail them all. My standpoint is simply that liquor is unnecessary and bad. It is a help only to thieves and robbers, and I have seen them use it over and over again as a means to lure the fisherman and sailor to his destruction. Saloons and haunts of vice swarm around most seaports, and it is as easy for the liquor sellers to prey on the newly landed sailor, with his pocket full of money, his generous and simple nature, and his lack of friends in a strange place, as it is for any other vultures to prey on carrion.

How many times have I seen our poor fellows robbed of their money, of their self-respect, and even of their lives by the liquor sellers!

Evil Results Quickly Appear

Alcohol is not allowed to be sold on any part of the coast on which we are working; but as surely as it comes and an illicit sale begins, one sees its evil results as quickly as if, instead of alcohol, it had been the germ of diphtheria or smallpox. Lying at my anchors in Labrador harbors, women have come off to the ship after dark, secretly, for fear of being seen, to ask me for God's sake to try to prevent its being sold near them, as their sons and husbands were being debauched, and even their girls were in danger.

I have seen it come among the Eski-

mos. It kills our natives as arsenic kills flies, and it robs them of everything that would differentiate them as human beings from the beasts.

Liquor at Sea

Why don't I want to see liquor used at sea? Because when I go down for a watch below, I want to feel that the man at the wheel sees only one light when there is only one light to see; that when the safety of the ship and all it carries depends on the cool head, the instant resolve, and the steady hand of the helmsman, there is not standing there in place of the man, the poor, debased creature that all the world has seen alcohol create — even out of such gifted men as Burns and Coleridge and hosts of others.

I have seen ships lost through collision because the captain had been taking a "little alcohol." I have had to tell a woman that she was a widow, and that her children were fatherless, because her husband, gentle and loving and clean-living, had been tempted to take "a drop of alcohol" at sea, and had fallen over the side, drunk, and gone out into a drunkard's eternity. I have had to clothe children and feed them when reduced to starvation because alcohol had robbed them of a natural protector and all the necessities of life. I have had to visit in prisons the victims of crime, caused as directly in honest men by alcohol as a burn is caused by falling into the fire.

Liquor in Cold Climate

Why do I not want alcohol as a bever-

age in a country where cold is extreme, exposure is constant, and physical conditions are full of hardship? Simply because I have seen men go down in the struggle for want of that natural strength which alcohol alone had robbed them of. The fishermen that I live among are my friends, and I love them as my brothers, and I do not think I am unnecessarily prejudiced or bigoted when I say that alcohol is inadvisable after one has seen it robbing his best friends of strength, honor, reason, kindness, love, money, and even life.

During twenty years' experience on the sea and on the snow in winter,—an experience coming after an upbringing in soft places,—I have found that alcohol has been entirely unnecessary for myself.

Not Necessary as a Medicine

I have been doctoring sick men and women of every kind, and I have found that I can use other drugs of which we know the exact action, and which we can control absolutely with greater accuracy, in cases of necessity, for stimulating the heart. I contend we can get just as good results without it, and I always fear its power to create a desire for itself.

Moreover it is not necessary for happiness; for I have known no set of men happier and enjoying their lives more than the crews of my own vessel, and the many, many fishermen who, like ourselves, neither touch, taste, nor handle it.

I would be willing to allow that the manufacture of it gives employment,

that the sale of it is remunerative, that a desire for it can be easily created. But the desire for it has to be "cultivated;" and once cultivated, the "market" is certain to open up, the desire becoming an insatiable, uncontrollable lust in many. I have no controversy with anything that gives employment and circulates money, and should possibly be satisfied if, after all the good grain and good foodstuffs had been fermented and converted into this particular kind of poison, instead of being poured down men's throats, it were poured into the ocean, where at least it would do no harm.

Results Irremediable

I have seen men robbed in many ways, but they have been able, by the help of God, to wipe out any lasting result of such transient losses. But the robberies of alcohol are irremediable. I buried in a lonely grave on a projecting promontory, far down the coast of Labrador, a young girl of eighteen. She was some one's daughter and some one's sister. I had taken her aboard our little hospital ship for the last week of her life. She should have been alive to-day, but she had no desire to live. All that could possibly make life worth living for her had been robbed from her through the means of alcohol, and she could not face the home-going again.

If ever I have the opportunity given to me to say a word at any time or in any place which will help to inhibit the use of alcohol as a beverage, so long as I can stand upon my feet I shall be proud to get up and say it.



Cows Not Used to the Weed

A RECENT newspaper clipping tells of two Holstein cows that died suddenly as a result of eating some tobacco leaves.

When a man lowers himself to do some degrading thing, we call him beastly or bestial.

What shall we say of cows which so far forget their bovine dignity as to adopt a human habit? Shall we call them "manly" cows? Why not? What habits are there that more clearly distinguish the human race from the beasts than the tobacco habit and the drug habit, including drunkenness?

And yet we sometimes call a man "beastly" who indulges to the extreme in one of these

characteristic human habits. What an injustice to the animal race! Better call them *unbeastly*.



Alcohol and Mental Efficiency

Most men who use alcohol do not take it for the taste, but because it seems to brace them up and make them more "fit," mentally or physically, or both. Few of these realize to what an extent alcohol is a "mockery," in the sense that while seeming to do one thing, it does the exact opposite. It is a deceiver, and to-day is deceiving even physicians who have been brought up under the old régime. There

are men, however, physicians and physiologists, who, as the result of careful laboratory work, know what the real effect of alcohol is, as opposed to the apparent effect.

In a recent article by Dr. J. Wiglesworth, on "Alcohol and Mental Disorders," in the *Medical Temperance Review* (London) of May, 1912, we have the effect of alcohol on mental efficiency stated in clear language:—

"The faculty of clear, deliberate thought, the power of sound judgment, are not assisted, but lowered, by the imbibition of alcohol. No observer has, so far as I know, ever maintained the contrary, but that the fact is as stated is within the experience of nearly all of us.

"To the individual himself while under the influence of alcohol this fact is generally not apparent, but is evident enough when he comes to compare work requiring the highest brain effort done under the influence of alcohol with similar work performed when entirely free from the influence of this agent.

"But to say that work requiring the highest mental effort is lowered by the action of alcohol is only another way of saying that this drug exerts a paralyzing influence on the complicated cerebral plexuses, upon the proper functioning of which the highest mental operations are dependent.

"The deleterious effect of this agent is seen first in these highest centers, because these are the latest developed, and therefore the most delicate and the most liable to give way when the nutritional environment is adverse. But the paralyzing influence that alcohol exerts upon these highest centers quickly spreads to the less high, and so on to the lower, until all manifestations of mental life are for the time abolished in the coma which the continued imbibition of alcohol brings; and between these two extremes every manifestation of mental paralysis may be observed, according to the dose of alcohol taken and the idiosyncrasy of the subject."

Is It Consistent?

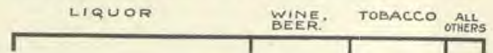
IN the matter of the regulation of the international opium trade, the United States, it seems, has set the pace in two particulars, and to that extent it has molded international law. First, there is our own exclusion act passed in 1909, which makes the possession of opium illegal unless it can be proved that the opium is to be used for medicinal purposes. The recent Hague conference on opium adopted this provision, and it will become law as soon as it is ratified by the twelve great governments that had part in the conference.

A second measure, adopted by the conference as the result of American initiation,—

that is, on the recommendation of our delegation at the Shanghai (1909) Opium Conference,—was that opium-producing countries should prohibit the export of opium to prohibiting countries. This is a distinct gain by America for the antiopium cause. But how does this coincide with the fact that right in our own country the federal government authorizes any man who has a federal tax to sell liquor in prohibition territory, and refuses so to change the laws as to do for prohibition States what American representatives have asked opium-producing countries to do for opium-prohibiting countries? Our government still maintains the right of the liquor dealer to ship his stuff across State lines into prohibition territory; and yet we pose as would-be reformers in the opium problem. Why?—Simply because our Big Business does not have its capital largely invested in opium.

Cause of Government Apathy

ONE important reason for the apathetic attitude of the federal government toward the question of State or local prohibition is the fact that a very large proportion of all the internal revenue is derived from the manufacture and sale of alcoholic drinks. The accom-



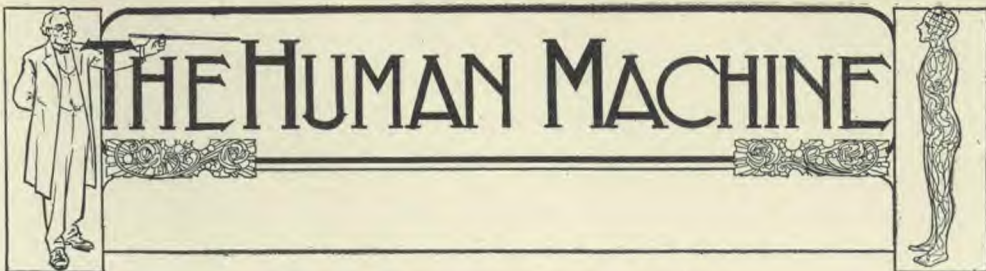
This represents the sources of the internal revenue of this country. Practically all comes from liquors and tobacco.

panying diagram shows by the length of the sections of the line the comparative amounts received by the federal government from distilled liquors, from wine and malt liquors, from tobacco, and from all other sources.

For some reason the theory is firmly established in the minds of legislators that there is an advantage in taxing injurious substances, in that it will limit the output. The opposite proves to be the case, for once a business like the liquor business or the tobacco business is established as a supporter of government revenue, it is all but impossible to make any headway against it; for in nearly every legislator's mind comes up the query, "How else can we keep up the revenue?" little realizing that, after all, the revenue in any case must come from the people, and in the case of liquors, from the people least able to stand it. It is the wife and the children of the drunkard who go without the necessities of life in order that the government may have its revenue.

This is dollar statesmanship instead of the statesmanship that looks after the welfare and the social uplift of the units composing the nation.





IS CANCER PREVENTABLE?

QNE of the most sinister conditions having to do with the effort to combat disease in the human race, is the steadily increasing prevalence of cancer, notwithstanding all the efforts of governments and cancer commissions to pry into its nature and cause, and to learn how to prevent and cure it. Notwithstanding the many thousands of dollars spent in cancer research, and the many lives devoted to this study, we seem as far off from a solution of the question as ever. Cancer is increasing, and we seem helpless to prevent or cure it. Under such circumstances, any hint which gives any promise of a solution ought to be most eagerly grasped.

Demineralized Foods

Dr. Horace Packard, professor of surgery, Boston University, who last year published a paper showing the analogy between certain growths on plants and cancer in animals, has more recently published in the *Boston Medical and Surgical Journal* an article entitled "Demineralized Food and Cancer," which is certainly worthy of careful attention. His former paper carried the idea that the tumor growths on trees were especially common on land which was poor in the mineral constituents needed by the trees. In the latter paper he does not refer to this analogy, but bases his argument on other considerations.

He shows, first, that in modern civilized life much of the food is demineralized, particularly the great staples, bread, potatoes, and rice, while flesh affords but a meager supply of the food salts.

The lower animals, whether herbivorous or carnivorous, receive into their systems all the mineral salt necessary; but man, in the process of boiling, hulling, etc., throws away some important elements of nutrition. We have been too prone to consider nutrition merely a matter of protein, fats, and carbohydrates, without regard for the mineral salts; and we have doubtless paid the penalty.

White Bread

In the matter of bread, for instance, we have known that it is rich in protein and carbohydrates, and we could easily supply the fat in the form of butter. What more could we want for a perfect food? But "the demand of the civilized world is and has long been for bread which is white. No other article of food is in such universal and daily use among civilized nations as white-flour bread. There are still communities of people so isolated from the civilized world that the material for making bread which is white does not reach them, or, if at all, in such small quantity that it constitutes but a trifling proportion of their dietary. The interesting and impressive thing about these people is that they do not have cancer, or if at all, to so slight a degree that it is a negligible quantity."

Where white flour is not used, perhaps it is hulled rice. "The process of milling rice polishes off all, or nearly all, the portions which bear the mineral salts, leaving scarcely more than starch." And again, where potatoes are used, they are so prepared that the mineral salts are lost.

Dr. Packard offers his theory modestly, realizing that it will require much

time and the work of many to prove or disprove his theory; but he asserts that "some cases of inoperative recurrent cancer that were placed upon a diet and treatment in conformity with this theory in the spring of last year, show an apparent arrest of the disease and a general condition of good health quite at variance with former experience in similar cases."

Dr. Packard found some difficulty in establishing persons on a right diet, for the reason that it is very difficult to obtain real whole-wheat bread. The so-called "Graham" and "whole wheat" of the bakeries may be only white flour with the mill sweepings from the flour and a little bran thrown in, the whole baked with molasses to give it a brown color. The doctor advises as a preventive and possible cure of cancer:—

Prevention

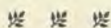
1. Exclude all white flour and white-flour products from the dietary.

2. Discard the center of potatoes and use the outside. Boiling peeled potatoes soaks out all the salts. If boiled, they should be boiled "with their jackets on," or else the water in which they are boiled should be used in making a gravy, or soup.

3. Eat freely of well-cooked fresh vegetables and fruits.

4. Flesh foods are partly demineralized. Carnivorous animals eat blood and bones, as well as flesh, and thus get all the salts. Milk, which is the sole food upon which young animals grow, and eggs, from which are hatched perfect young birds, are much more complete foods than meat.

Some have in the past attributed cancer to the eating of meat. Is it not a possibility that it is rather the combination of meat and white-bread eating—the demineralization of the food?



Some Cancer Advice

THE following advice regarding cancer, given by the Postal Life Insurance Company of New York, is worthy of attention:—

"Moles, especially growing moles, warts, irritable scars, and all such excrescences and tissues of low vitality, invite the attack of cancer. Their removal is a simple matter, and relieves humanity of just so much cancer soil. The only good tumor is a tumor that lies on the operating table. In the body many tumors remain innocent and benign, but sometimes—and they never ask your permission—they become malignant. Out of the body they can never harm you. If you have a tumor, chronic swelling or chronic ulcer, especially of the lip, tongue, or breast, seek surgical advice, and act promptly if operation is advised. Avoid constant irritation of skin, tongue, lip, or other portion of the body, by pressure or friction, as by pipe-stem, cigar, jagged tooth, etc. Give no heed to well-meaning people who advise against operation, and recite wonderful cures of dear friends who used 'Mother's Salve,' 'Anti-Cancerine,' or other marvelous remedies. The X-rays and radium have their place, but only when the knife can not be used.

"There is no need for hysterical alarm over the presence of moles, warts, or other excrescences. Every ulcer is not an epithelioma, neither is every enlarged gland or swelling a future cancer, but many future cancers will arise in such tissues, and the wisest plan is to fortify your body against attack.

"Operation in internal cancer is now fairly successful in the early stages. Chronic disease of stomach, intestine, or other internal organ should not be allowed to continue very long without surgical consultation, especially if the subject is over forty.

"There is reason to believe that the high and increasing death-rate from cancer is a manifestation of life strain and overcivilization. Temperance, especially in eating, drinking, smoking, etc., is a valuable general preventive measure. Cancer can be found in many family histories, but there is little proof that it is transmitted by inheritance. There is much groundless apprehension regarding the influence of heredity.

"While awaiting the often-heralded but as yet elusive 'Cancer Cure,' give the surgeon a chance to cut the cancer death-rate in half. He can do it."

This looks entirely to the prevention of cancer by avoiding a particular irritation that determines the cancer at some particular spot. While these two theories, if we may call them such, as to the cause of cancer, seem to be so at variance with each other, yet we know that every disease has several cooperating causes which must act together in order to produce the disease and that in some cases we may avoid the disease by removing one of these causes, and in other cases by removing other causes. After all, we must remember that what we do not know about cancer would make a very large book.

EDITORIAL

“THERE SHALL BE NO GRADE CROSSINGS”



SEVERAL years ago there was a child killed at the Takoma Park (D. C.) grade crossing. Grade crossings, let me say in explanation, were formerly permitted in the District of Columbia, and occasionally there were fatal accidents.

The District Commissioners finally aroused to a sense of their responsibilities, and declared that the grade crossings must be abolished. A law to that effect passed Congress, and was signed by the President. One after another, the streets were lowered or the tracks were raised, until now scarcely a grade crossing remains within the sacred precincts of the federal district.

And why all this trouble, at an outlay of hundreds of thousands of dollars? Because a few lives have been lost at these crossings. It was a plain case, no argument was needed.

The person crossing over the railway tracks was struck by a passing train, and was killed. If there had been no grade crossing, the person would still be living. The grade crossings must go!

And they *did* go, and it was right that they should go.

But just why has this particular cause of death been singled out for abolition? Are there not as many *preventable* deaths *every year* from tuberculosis, as there would be in *fifty years* from grade crossings?

To be consistent, why not appropriate fifty times as much money for the abolition of tuberculosis breeders, as is appropriated for the abolition of grade crossings?

There are several reasons. While theoretically we assent to the proposition that tuberculosis is preventable, we do not right down in our hearts believe it, at least we do not realize that *we* can help to eradicate it.

Second, there is something tragic, something that catches the public eye, in a sudden death, that is not invoked when fifty times as many persons die from some unnecessary, preventable disease.

A fire in a theater, the sinking of a ship, especially if the circumstances are unusual, so emphasizes the sequence of events that even a legislator can trace results to their causes, can develop a working plan by which the cause may be eradicated, and can let the national purse-strings open sufficiently to permit a generous appropriation for the relief of the objectionable conditions.

But the steady grind of unnecessary deaths, the steady toll of victims of preventable disease, just because it *is* steady, just because it is not unusual, just because it has always been that way, apparently can not come within the circle of the average legislator's thinking!

But let us not be hard on the legislators.

They are just like the rest of us, with the exception that they have been selected to make our laws, mainly because they were especially fitted to look at matters from the standpoint of dollars and cents.

And every proposition to better conditions must meet the handicap of a legislature to which dollars stand out more prominently than human life and health.

A drastic statement perhaps, but a bald fact.

Our national departments are essentially departments to look after dollars.

Our legislators could think of no better place in which to put the Public Health Service than the Treasury Department!

What does the Secretary of the Treasury, an expert in finance, banking, and the like, know or care about public health?

The history of the plague situation in San Francisco some years ago, when interested persons in that city, through the Secretary of the Treasury, came near plunging our country into a terrible danger by covering up the fact that there was plague in San Francisco, is a case in point.

The Department of Agriculture is another department in which some of the bureaus having to do with public health have been stationed, and in which every little while it is apparent that the interest of those at the head of the department is rather with the dollars of the producer than with the health of the consumer.

And perhaps it is because legislators see rather from the financial than from the health side, that they are so ready to let the Owen Bill, which provides for the gathering of national health bureaus under one efficient head, go by default.

If some genius could make the deaths by tuberculosis and plague and other diseases which are decimating our population, stand out as tragically as deaths by violence and accident, it doubtless would aid in securing appropriate legislation,— for the fact that we can secure legislation regarding grade crossings shows that our lawmakers are not without heart,— and would confer a real boon on prosperity.

J. H. Heald.



Good Form, or Good Sense **WHY** do you take a regular bath? Why do you sleep outdoors? Why do you take regular exercise? Is it because you know these things to be beneficial, or is it merely a matter of following the crowd, doing it because it is what respectable people do? These questions we may well ask ourselves, in view of the suggestion, by the California State Board of Health *Monthly Bulletin*, that "there is a vast difference between good form and good health." "For example," the *Bulletin* continues,—

"a mother will provide her children with individual table utensils, and chide them if they drink out of each other's glasses. It is true the Chinese and Igorots do it, but this only emphasizes the fact that a careful American mother should not permit her children to so transgress the social customs. That the care which she exercises, however, is due to consideration of good form rather than to good sense is proved when one follows this mother and her children down-town and finds her calmly giving each of them a drink from the common cup chained to the public fountain.

"This is but one of hundreds of illustrations that will occur to any one who spends a few moments thinking over how many things we all do because it is 'good form' to do them, and not because of any studied appreciation of good sense."

White Flour and Beriberi

It is now quite definitely known that beriberi is caused by the use of polished rice by those whose menu is so limited that they do not get in other foods the substances which are thrown away in the rice polishings, and which seem necessary in some way to produce the best health.

A physician of St. Anthony, Newfoundland, asserts in the *Journal A. M. A.* that there is a similar condition in winter among the fisher-folk on the north

Atlantic seacoast who live for a considerable part of the time on bread and tea. He says:—

"In other words, substitute wheat for rice, and we have the exact conditions that we have seen in the East. . . . Almost invariably it is found that such patients have been or are to all intents and purposes on a diet of over-milled wheat, by which I mean ordinary fine white flour.

"A great many here live from hand to mouth, being always on the verge of poverty. There are many who are satisfied if they have enough flour, tea, and molasses to see them through the winter. . . . Many never have a vegetable. . . . Berries abound in the fall, but are hard to gather. . . . Fish is worth more to sell than to eat, for with it flour, which is the cheapest food, is bought."

The doctor finds many of the symptoms among his patients the exact counterpart of those seen in victims of beriberi in the tropics. When a diet is made more varied, the symptoms disappear; but when an added burden, whether pregnancy or some other, comes to an individual, then the condition becomes worse. He has seen bad cases who, when put on a diet of whole-wheat flour, peas, and beans, recovered perfectly in two months. Patients going into a stage of paralysis rally in two weeks on a liberal diet.

On one part of the coast where a vessel with whole-wheat flour went ashore and had to leave the flour to lighten the ship, the natives got the flour, and have not had a case of the disease since. The doctor also cites the testimony of old inhabitants who say that in the old days when "brown flour" was generally used there were no such conditions.

Is it a fact that unmilled grains have in their outer coats some substance which prevents the occurrence of that form of peripheral neuritis known as beriberi?

Treatment of Intestinal Disorders

METCHNIKOFF came into the limelight so far as the "common people" are concerned (that is, the people who do not follow up closely the progress in the sciences) when he announced to the public that man is cursed by his large intestine, that the trouble is with certain putrefactive germs that grow there and produce poisons, which are absorbed into the system, cause a long train of disagreeable, alarming, and dangerous symptoms, and shorten life. This was the dark side of his message. But he also announced the discovery of a germ, *Bacillus lactis Bulgaricus*, which is antagonistic to putrefactive germs, and which differs from other antagonistic germs in that it can survive in the human intestine.

At first, Metchnikoff's reports were received with much interest; then again they were very greatly discredited because no one on this side seemed to have success with his treatment. It may be that the real reason for this lack of success, was that we have not been dealing with the real *Bulgaricus* germ at any time. Now the professor has deserted *Bulgaricus* for something better.

His latest idea is rather interesting. He states that animal foods usually produce more toxins than do vegetable foods, and that sugar will act as an energetic and destructive agent on toxins, but, being rapidly absorbed in the intestinal canal, it does not reach that part of the intestines where the toxic action is carried on, and so, with Metchnikoff, the problem has been to find some way to carry the sugar down into the large intestine. He has found a microbe which assimilates sugar, and which can be sent into the large bowel, taking the sugar with it. This microbe, which is found in dogs, is a parasite of starch, transforming it into sugar, and it does not act on albuminoids and produce poisons. In order to keep this "benefactor microbe" alive in the large bowel, it must be fed with "many young potatoes, barley, sevelina, and bread." We will watch with interest the outcome of this theory.

The Present Tuberculosis Platform

At every large convention representing the picked men of any profession, there are usually some dominant notes which indicate that the current of events is forcing the thoughts of the workers in some particular direction. At each annual national convention of the antituberculosis workers, certain principles, certain theories, seem especially prominent, which at previous meetings, perhaps, were not in the foreground.

A year or two ago the cry was that tuberculosis is one of the most curable of diseases. Now it is being learned that this statement, while in a measure true, applies particularly to tuberculosis in that early stage before it has caused any uneasiness by its presence. When it becomes generally known that a person "has T. B.," the cure is not by any means a matter of child's play.

At the time of the International Tuberculosis Congress in Washington, there were two distinct camps as regards the relation of bovine and human tuberculosis. Now the lines are largely obliterated, and there is one platform; namely, that bovine tuberculosis is a very real danger for children, but is of little significance for adults.

A note sounded at the annual congress by Dr. Ira Van Giesen, while it did not at the time seem to elicit much response, may yet be a dominant cry in the anti-tuberculosis fight; namely, that lime starvation is a most important favoring factor in tuberculosis.

Bacterial Treatment

IN the *Journal A. M. A.*, June 29, Ralph Oakley Clock, M. D., reports a series of successful implantations of *Bacillus lactis Bulgaricus* in certain intestinal diseases in infants. He had tried various "buttermilk" and similar mixtures, and he asserts that those made in this country claimed to be the *Bulgaricus* have been shown to be a paralactic or some other germ. But through the Johns Hopkins Hospital he secured tablets of the pure

culture obtained from the Pasteur laboratories. It was this preparation he used, and of the cases which he reports, he says that the only treatment given was the administration of the tablets (one dissolved in water after each feeding); and though these cases were cases of gastro-enteritis and enterocolitis, some of them quite severe, he had remarkable success. The infants were from five weeks to ten months old. He had decided improvement in every case within twenty-four hours. Putrefaction entirely disappeared from the stools, and they, as a rule, were normal and consistent in color on the fourth day. The results were permanent in every case, with no relapse. The tablets caused no bad effect. After the stools had become normal, the cultures were continued three times a day for one or two weeks.

**A Country
Newspaper and
Patent Medicine**

RECENTLY I received a letter calling my attention to a country newspaper published in New Hampshire, having thirteen patent medicine advertisements on one page. The writer comments:—

"You will notice on the front page, under the heading, this motto: 'The *Pioneer* Labors

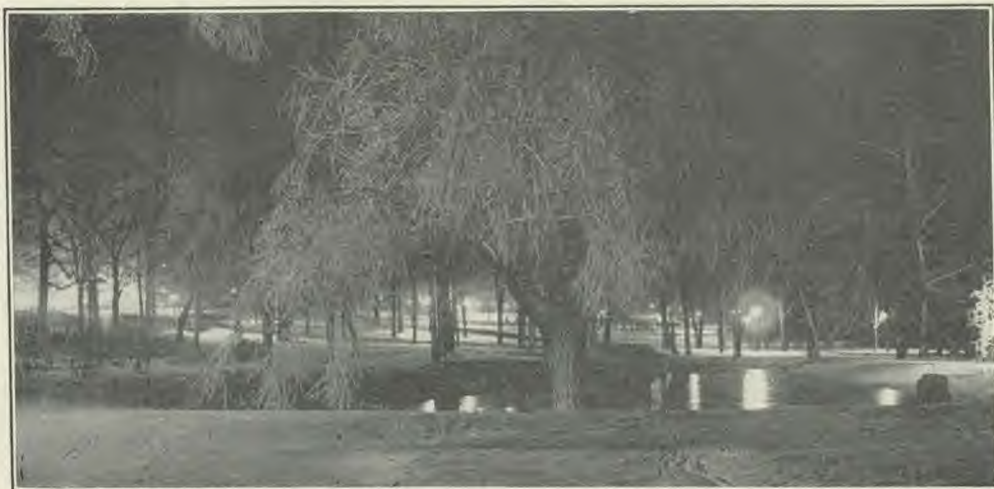
to Remove the Underbrush From the Forest of Humanity.'

"Do you not think they could remove some of the 'underbrush' by refusing to print fake patent medicine advertisements?"

"I write to you, knowing how useless it would be to write to them."

I have written to this paper, calling attention to this discrepancy between its motto and its advertising policy, but it is with little hope that it will make any change; for, as I replied to my informant, the real motto of this paper probably is, "Money makes the mare go."

Counting up the number of advertisements in this paper, we find that there are twenty-one, amounting in all to one hundred five square inches,—this in a small four-page country paper. One wonders how much interest these editors have in their subscribers, when they will insert such advertisements as these, because most certainly the advertisers would not continue to advertise if they did not receive returns from the people. In other words, these country newspapers have become, for a ridiculously small consideration, parties to a scheme to get money out of their subscribers for nothing. Take these remedies, from beginning to end, and there is not one in a thousand of any benefit whatever, except to the imagination.



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NIGHT SCENE IN A PARK

THE MINISTRY OF HEALING



WASHINGTON SANITARIUM DISPENSARY

Mrs. V. E. Peugh

EARLY in the present year the Washington Sanitarium, Foreign Mission Seminary, and District of Columbia Conference joined hands in opening a dispensary in Southwest Washington. It was intended that this institution should supply a long-felt need. It was not only to be a help to the people of that district, but was to serve as a place where prospective missionaries might receive a special training for foreign work.

It matters not to what part of the world the missionary may go, he will always have the same work to do that Christ did. The sick and suffering are to be found in every hamlet and village. How essential, then, that every missionary who goes out in the name of the Great Healer, be able to work through the same channels that he used. Hence the necessity of an adequate preparation for our nurses. They have received good instruction in our sanitariums, but it has been inadequate to meet the needs of the foreign field. They have had the physician at hand to direct in their work, and to bear the responsibility of the case. All the modern conveniences have been at their disposal. But not so in the foreign field. Removed far from the physician, they must make the diagnosis and prescribe for the case. Surrounded with poverty and filth, they must improvise ways of giving treatments to the sick.

A Valuable Training

If our nurses are to meet these conditions, they must have a preparation for it. No nurses' course is complete that does not provide for such a training.

We believe that the dispensary located in Southwest Washington will give an invaluable experience to those who are preparing to go as foreign missionaries. Here they are brought in contact with the lower classes of society, which correspond to the people of heathen lands. They are learning how to reach their hearts by healing their bodies. By experience they are learning how to perform minor surgical operations, to dress burns and infected, lacerated, and contused wounds, besides caring for acute and chronic diseases. Some of those who come to us are affected with loathsome diseases, which testify to a life of sin. One old colored woman has been coming since we first opened the dispensary, to have a suppurating ulcer dressed on each leg. These putrid ulcers are of about three years' standing. After a few weeks' treatment, one has entirely healed, and the other is much improved. It is needless to say that she is grateful, and is expressing her gratitude by telling her friends and acquaintances of the "new dispensary," and urging them to come.

In every way the dispensary has been blessed since opening. It has been in operation only ten weeks, and during that time 332 different patients have been prescribed for, and 805 treatments have been given during clinic hour. The clinic is open from 1 to 2:30 P. M. each day except Sabbath.

A Blessing to the Needy

It is true that our nurses need the experience that a dispensary will give them; but it is no less true that the poor of

Washington need the help that our earnest, God-fearing nurses will give them. Hundreds, yes thousands, here in Washington are struggling with poverty, and are able to secure but the bare necessities of life. Toil and privation, with no hope of better things, make their burdens very heavy. When pain and sickness are added, the burdens are almost insupportable. And what wonder that disease fastens its grasp upon them when large families are crowded into two or three small rooms. Here they breathe the deadly miasma from the filth about them, and habits of drunkenness and vice are sapping the life-giving current. In Southwest Washington alone, in an area of little more than one-half square mile, 16,800 persons are massed together. As if there were not room enough in their homes, the children literally swarm the streets. Their eyes meet the sight of drunkenness and crime on all sides. In this district alone seventy-three saloons are leading fathers, mothers, and children alike to lives of misery and poverty. On an average, each family of five pays eighty-one dollars a year to keep these saloons operating.

Some Rich Experiences

In this district our nurses are daily going from home to home, caring for those who are unable to come to the dispensary. In this work we have some of our richest experiences. As we were leaving one home, we were called across the street to see a sick woman. When we entered the house, she told us that she had heard of our work, and had been waiting several weeks, hoping to find us. Tears of joy flowed down her cheeks, for she knew that what she had so long hoped for was at last realized. She is happy now, for three times a week she can have a bath and treatment. She is a paralytic, and had been helpless for three years. With almost no care, imagine her condition when we found her, and what it must have meant to give the first treatment. The Lord has wonder-

fully blessed our efforts. As the result of a few weeks' treatment, she is now able to dress herself and stand alone.

In another home we found the mother confined to her bed. A year had passed since she left it. She was a loathsome sight; over her body were scattered no less than a dozen putrefying sores. Only ten days after we began to treat her, she was able to sit up in a chair outdoors. Little more than two weeks had passed when she was able to walk about her room. This seems miraculous; but the Great Healer is as powerful to-day as when he walked in Galilee. We have had the privilege of reading and praying with her. Her children gathered about her, and the tears flowed freely as they exclaimed, "Ain't that nice, mama! Nobody never done this before." True, they had seen visiting nurses before, but never one who would kneel down at the bedside and beseech the aid of the Great Physician.

In the visiting nurses' work, 400 treatments have been given; 150 wounds have been dressed; 125 papers and 175 LIFE AND HEALTH magazines have been given away.

More Equipment Needed

While we see good results from the work so far, much more might be accomplished if we had the proper equipment. A spray should be installed, besides other appliances for giving hydrotherapeutic treatments. Surgical instruments are needed, also some well-equipped emergency carrying-cases for use in visiting nurses' work.

Though the dispensary is exceeding our expectations financially, it is perhaps too much to expect such an institution to be self-supporting. But we believe that God's people will support, by their voluntary contributions, such a work as this, organized for the double purpose of preaching the gospel to the poor of our national capital and of training medical missionaries for the great cities and for the foreign fields.

THE MEDICAL MISSIONARY AT WORK



SOME HEALTH PROBLEMS OF CHANGING CHINA

TWO thousand miles, twenty million persons, two hundred cities — and not one sewer! This, in brief, is the summary of a trip into the interior of China.

One of the most fertile and most densely populated areas in the world is this Yangtse River Valley. There are numberless cities scattered between Shanghai on the coast and the mountains to the far west. While they vary a great deal in many ways, in the new order of things these cities will have to face certain problems of public health which are common to them all.

Congestion is one of these problems. Passing through the cities of the Yangtse Valley, one is constantly impressed with the fact that every available inch of ground has been utilized for building purposes. Compared with the large population, the area occupied by these cities seems far too small.

Congested Cities

Viewed from the top of a wall, such as surrounds many of the larger cities, little more is to be seen than an expanse of housetops extending from wall to wall. There are no large open spaces for playgrounds or parks, or even wide streets. And trees are the exception.

In the city, the streets present much the same appearance. They are very narrow. Five feet is an ample alley; ten feet makes quite a main street; and a thoroughfare fifteen feet wide is so unusual as to be classed the boulevard of the city.

There are no yards, either front or back. The houses abut directly on the street. And often, in the business districts, the streets are made more narrow

by the shops and stands which project out from the houses, in the back of which the people live. These houses, if of one story, are usually windowless. The doors open on to the street. Paving, when present, is so crude as to make cleanliness almost impossible, even if the people were so inclined. Cooking is done in the open, usually next to the street and its dust. Inquiry shows that ten persons often occupy quarters large enough for only two.

Through these narrow streets flows such a current of life as one never sees even in the most unhealthful slums of America. Riders on horses and donkeys, herds of sheep, goats, and cows, coolies carrying all sorts of foods and merchandise suspended from bamboo poles, rickshaw men, and pedestrians make up a throng which slowly passes by. Pigs, dogs, and other dirty scavengers nose about as they rub their way through the crowd from one place to another. A more favorable breeding-place for disease than the insanitary congestion of these cities would be hard to find.

No Health Laws

Another aspect of the problem of public health which the new China will have to face is that of medical legislation.

During its rule of three hundred years, the Manchu government failed to make laws safeguarding the public health. In consequence, China was exposed to many dangers from without and from within, against which other nations attempted to protect themselves. There were no quarantine laws, no isolation hospitals, no efficient methods of combating cholera and plague. For this reason, China was more or less a menace to the health of the

rest of the world. She had no health officers, for there were no health departments, and no health regulations to enforce. . . .

The Medical Profession

A third problem affecting the public health of China, is the condition of the medical profession. This profession is a very old one in China, its history extending back many centuries. To become a member was largely a hereditary affair. Young men, also, served as apprentices. And what secrets an old practitioner had, he usually handed down to his son or apprentice. But any man had the right to become a physician. The people thought so little of their physicians that no one cared. A man might go to bed a cobbler, and wake up a doctor, his mind having been made up during the night. All that it was necessary for him to do was to secure a sign which declared that he was a doctor. No one ever thought it worth while to urge medical education. And there were no legal requirements to meet.

If the physicians of China ever realized their inefficiency in comparison with those of other lands, no one knows. There is no record that they ever consulted together on anything. Clans, guilds, and secret societies were formed from time to time to foster nearly every other industry and profession, but the doctors were all too busy making a living to waste time cooperating with their competitors who did not know anything anyway. There are no medical societies in China. If never before, then certainly in this revolution has the medical profession of China proved itself to be thoroughly unorganized, unprogressive, and unfit.

A Change in Progress

But China is changing. It will be a long time, undoubtedly, before the congestion of the cities will receive adequate attention. But once the time does come, the cities of the Yangtse Valley will have at least one example to study. Burned during the long battle between the im-

perialists and revolutionists, the native city of Hankow is to be rebuilt along more modern lines. A foreign engineer has been called in to give advice in the making of plans. And once the people acquire clearer conceptions of the requirements for health, their housing conditions will improve, and tuberculosis and other diseases now ravaging the cities will be more easily controlled.

As to medical legislation, something has already been done. The new government has just completed the organization of a national department of health. Dr. Lin Boon Keng, of Shanghai, has been called to its head. Trained in foreign lands, with considerable experience in tropical diseases, Dr. Lin has a clear field before him. A bulletin of fifteen practical suggestions covering some of the most urgent needs is in process of preparation. Foreign doctors will be invited to cooperate in every way possible. Until the conditions in the country become more settled, not much more can be done by this department than the laying of plans for the future.

Effect of the Revolution

The medical profession will undoubtedly undergo changes with the rest of the country. One of the results of the revolution already manifesting itself is a complete change of attitude among the leaders of the people in the army and elsewhere, regarding the value of Western medicine. The previous indifference has given way to a most unexpected interest. A Shanghai gentleman of considerable influence in the revolution exclaimed to me, "What would this war be without you foreign doctors?" . . .

For years medical missionaries have been training Chinese helpers in their hospitals, but the pressure of work made it impossible for them to do thorough medical educational work. Later several religious organizations at work among the Chinese combined in the establishment of union medical schools. American universities interested themselves in the problem of medical education, also.—*W. W. Peter, M. D., in Journal A. M. A.*

QUESTIONS *and* ANSWERS

THE editor can not treat patients by mail. Those who are seriously ill need the services of a physician to make a personal examination and watch the progress of the case. But he will, in reply to questions sent in by subscribers, give promptly by mail brief general directions or state healthful principles on the following conditions:—

1. That questions are *written on a separate sheet* addressed to the editor, and not mixed in with business matters.

2. That they are *legible and to the point*.

3. That the request is *accompanied by return postage*.

In sending in questions, please state that you are a subscriber, or a regular purchaser from one of our agents; or if you are not, accompany your queries with the price of a subscription to LIFE AND HEALTH. This service is not extended to those who are not regular readers.

Such questions as are of general interest will, after being answered by mail, also be answered in this department.

Fake Advertisements.—"I notice you warn your subscribers against advertisements which say 'Grow three inches taller.' I suppose you refer to a stretching apparatus. Now it seems to me that it is quite beneficial in my case to take stretching exercises."

Most certainly I warn against advertisements that promise to make a person grow three inches taller. All such advertising is deceptive. The advertisers certainly get the gullible people's money, but it is just as certain that the gullible people do not grow three inches taller, or one inch taller, permanently. They give their money away for nothing. I have no objection to relaxing or stretching exercises. My contention is that the claim to make people permanently taller by this method is not substantiated.

Calomel.—"Once in a while one hears of the case of one who has been salivated after taking calomel, presumably caused by the eating of something sour before the calomel has acted. This generally causes the mouth to be sore and the teeth to loosen. Is there any other evil result connected with salivation?"

I do not advise the use of calomel, particularly as a routine laxative by those who doctor themselves; its after-effects are apt to be altogether too serious.

Poisoned by Tinned Fruit.—"I recently heard of a family all the members of which were made seriously sick from eating pie made from canned grapes. Do you think it probable that the cook who made the pie could have detected, either by the smell or by the taste, that the grapes were spoiled, and so have avoided all this sickness? The grapes were canned in tin. Is there any danger that canned fruit is affected by the tin in which it is canned?"

The sickness caused by eating pie from canned grapes, may be due to the dissolving of the tin, which often contains lead. It is not likely that grapes a little soured, which would

make either wine or vinegar, would have caused such decided illness unless these had eaten off the tin.

Spoiled Fruits.—"In case canned fruits or vegetables spoil, can they be restored by thoroughly re-cooking, or is it best to throw them away?"

It is better to throw away spoiled foods, and not attempt to reheat them.

Food Specialists.—"Why do you object to advertisements of food specialists?"

If one buys of a food specialist he pays from three to ten times the price of the same kind of food bought in the regular way. The foods of the specialists contain nothing not obtainable for less money in the ordinary foods. These men, so-called food scientists, often are grossly ignorant about the physiology of the body. They write advertisements that catch the eyes and the dollars of the unwary, and leave them no better than before. Of course, a person might be benefited in health by dropping some of the very injurious things that are commonly eaten in certain sections, and adopting some of these special diets; but a little study of the nature of foods and their nutritive value, and the avoidance of some of those things with which people try to cure themselves, would do as much for the common people as these proprietary foods.

Pork.—"Do you consider pork less nutritious than other meats? and if so, why? The Southern people, as a class (especially country people), eat a great deal of pork. Do you believe this habit could be responsible for the spread of pellagra in the South?"

The question of pork is not one of *nutrition*. As far as the elements that go to make up the body are concerned, they are probably all found in pork as much as in other meats. The question is rather one of the animal itself, and its nature, as a scavenger. I have no reason to think that the use of pork has anything whatever to do with the spread of pellagra. Some persons die of pellagra who have never tasted pork.

Cottonseed-Oil — Cottolene.—"Do you consider cottolene or cottonseed-oil a wholesome shortening? The cotton plant is an inedible plant, and its fruit is also inedible. This being true, I can not understand how its oil can be especially nutritious. I understand the cotton root is sometimes used as a drug."

So far as I know, cottonseed-oil is a wholesome shortening. Cottolene, however, is not cottonseed-oil, but cottonseed-oil plus beef fat. You say that the cotton plant is inedible; so also is the apple-tree. I think you will see the point. Nearly every plant has some particular part that is edible, and the rest is inedible. Any fixed oil of vegetable source is presumably nutritious, although there are some oils that also contain injurious substances. One would hardly wish to use castor-oil as a food. Whether the cotton root is used as a drug or not, would have nothing whatever to do with the oil, because the substance in the cotton root is not found in the oil. Moreover, cottonseed-oil goes through a process of careful refining before it is used as food.

Olive-Oil.—"Do you consider olive-oil a wholesome food? Almost every kind I ever tried had strong or rancid taste, and it does not agree well with me. I am through with olive-oil. Lately two of my sisters had an attack of indigestion from eating a dressing in which olive-oil and lemon-juice were used."

Olive-oil, generally, is a wholesome food. It is possible that the quality of olive-oil you get in your section of the country is not good. There are some persons with whom olive-oil does not agree.

Vegetable Foods.—"Is a food necessarily nutritious because it belongs to the vegetable kingdom? I do not believe it."

You are right in the belief that every food of vegetable origin is not nutritious; some are poisonous and some are quite hard to digest; in fact, as a general rule, the vegetable foods are more difficult to digest than some animal foods; that is, they take longer to digest because of the vegetable fiber they contain.

Beef.—"Beef seems to have a constipating effect on me. Do you believe meats in general are constipating?"

Beef may, or may not, be constipating, according to the person. To some persons milk is constipating, and to others it is the opposite. Beef does not furnish, of course, the rough fiber that renders vegetable foods laxative.

Cream.—"Is not cream rich in ash?"

Cream is not quite so rich in ash as whole milk or skimmed milk. However, cream contains considerable ash.

Diabetes.—"What would you advise for elderly persons who have sugar diabetes? Would this difficulty cause weakness of the legs and pain in the instep and ankles? Is it harmful to eat between meals, and to eat flesh foods, in case of diabetes?"

A person with diabetes is best under the

constant watch-care of a physician who can examine the urine at frequent intervals, and prescribe a diet in accordance therewith. It is not safe to attempt to treat this disease without such frequent examinations. The starchy foods should be reduced to a minimum, but just what this minimum is the physician must decide. As a rule, potatoes are better received than grain foods; of all the grains, rice is the best for a diabetic. I would suggest the use of nuts and nut preparations, but no intelligent or reliable directions can be given without having personal charge of the case.

I am not certain that eating between meals or that the use of flesh foods would be particularly harmful because the patient has diabetes.

Digestive Disturbance.—"I am troubled with sour stomach, acid dyspepsia, also constipation. Can you suggest any beneficial treatment?"

Your trouble may be due to some things not entirely relieved by diet or treatment. As you state nothing regarding your habits of life, I am at a loss to know what to suggest. Acid dyspepsia is not an entity that we can label, and say that such and such a thing will cure. We have to know the patient rather than the disease, and every patient is a separate problem. At best, without knowing all of the circumstances, I can only suggest some things that may possibly be helpful to you.

In the matter of diet, you may find the use of milk to be beneficial, also cottage-cheese, but use the latter rather cautiously. Starchy foods should be well dextrinized or browned, such as toast, toasted corn flakes, granose, etc. Use cereals, such as browned rice, in preference to the mushes. Have your potatoes mashed and well browned in the oven. The use of considerable fat will relieve to some extent the acidity. Thick cream will benefit you. If you can not get this, you should use some other form of fat, perhaps butter.

Connected with acid dyspepsia there is frequently some nervous disturbance, and very often worry or mental disturbance. It may be that you live too sedentary a life, and need outdoor exercise.

Ice-Cream.—"Is the eating of properly prepared ice-cream injurious?"

Not necessarily so. Some patients can eat ice-cream who can not eat anything else. It is sometimes used by the physician as the last resort in an almost hopeless case of stomach trouble. The difficulty with ice-cream is the tendency to eat it, not for the nourishment, but in order to "tickle the palate," and without regard for the time of meals or for the needs of the body. One should realize that ice-cream is a nutritious food, and if eaten in addition to the regular three hearty meals, one has just that much waste matter for the eliminating organs to dispose of. I am not convinced that the cold of the ice-cream necessarily has a damaging effect on the digestive organs when it is not overdone. A small amount of cold to the stomach probably acts as a tonic in the same way that it does to the skin.

SOME BOOKS

New Demands in Education, by James Phinney Munroe. Net, \$1.25. Doubleday, Page & Co., Garden City, N. Y.

A criticism of the present school system by an author, who appreciating the good as well as bad in this system, would construct a better edifice upon the present foundations, destroying only where necessary. The book should prove helpful to parents, teachers, and educators generally.

The thesis of the author is that boys and girls are our greatest national resources, and that their conservation is of more importance than the conservation of the natural resources. The supreme aim of education should be to foster capable bodies, to develop well-trained minds, and to build up strong, self-reliant characters. "How is education going to do this?" queries Mr. Munroe. "By putting fifty or sixty children in uncomfortable desks in an ill-ventilated schoolroom, and then bombarding them with facts?" The answer is obvious.

He pleads for smaller classes, greater attention to the health of the child, interesting and stimulating work instead of a mass of uninteresting facts, the training of all the senses, chief emphasis upon the character, emphasis on the social side, and finally, on leaving school, some one to advise wisely what to do next.

It is a broad platform, and apparently under present conditions almost impossible of attainment; but whatever is worth while can be attained if only we feel the need sufficiently to make the required effort.

One must admit the justice of what the author says regarding the insufficiency of the present system. In fact, perhaps scarcely a boy goes through school who does not himself realize the futility of at least part of the course. But as one grows up in a system, he gradually adapts himself to it, and so the future teacher too often follows in the rut for which, as a student, he condemned his teachers. It is to get people out of this rut that Mr. Munroe has written his forceful book.

His plea for more thorough training in the three R's, for vocational training, for training in hygiene, and the like, and his suggestion that the high schools be made absolutely independent of the college in matters of curriculum, seem right to the point.

Regarding the teaching of hygiene he says:

"Therefore, not only should gymnastic exercise be made as serious as any other study of the high school; the sound, sensible, and complete teaching and practise of hygiene should extend throughout the course. No foolish maundering about alcohol and tobacco, but a thorough training in right physical living that will fortify against intemperance of every kind."

If he means that the teaching about alcohol and tobacco is not needed, then I would have to disagree violently with him. If he means that the course of instruction confined to these two subjects is woefully inadequate and one-sided, I heartily concur. Not only the evil effects of alcohol and tobacco, but also sex hygiene and general hygiene, supplemented by special hygiene pertaining to the chosen trade or profession of the pupil, should be the minimum.


The book represents a high ideal. Whether it is workable, whether it can not be found to have defects as serious in other ways as those of the present system (of which so much was once expected), must be determined by the actual trial.

Rational Education, by Bruce Calvert.

"The race has produced only six or seven men of intellect," says Bruce; and he must be one of them or he would not know, for real intellect could not be detected and distinguished by non-intellect. Bruce is modest. "The balance of humanity's millions are all scrubs." The reader, of course, is refreshed to know where Bruce classes him. But a few pages later on Bruce says: "Who taught Socrates? Who trained Galileo? What academy graduated Copernicus? Who tutored Shakespeare, Darwin, Spencer, Whitman, and all the rest of the mighty host? What college taught Edison to illuminate the world with the electric spark? And the towering Lincoln, majestic giant, the deep waters of whose inner life were never troubled by the meddling fingers of pedagogy, who taught him?" Here are at least eight. Where does Bruce come in? You will know that he is a near-genius when I quote: "Rational education is no idle dream. Although such a school does not yet exist in the western hemisphere, it is coming."

The book is by one of those queer men who just missed being a genius, and has not missed being in that class which is closely associated with genius.





NEWS NOTES

Plague in Porto Rico and Cuba.—Plague is epidemic in the vicinity of San Juan, Porto Rico. There is also plague in Cuba, and strict quarantine is being enforced.

Peanut-Oil to Displace Lard.—An article recently appeared in the *Technical World Magazine* stating that peanut-oil is better than lard and cottonseed-oil, for all sorts of cooking; that it ranks next to olive-oil in commercial value.

Moving-Picture Health Campaign.—The New York Department of Health, in connection with the committee on the prevention of tuberculosis, is conducting an open-air moving-picture campaign, beginning at Mt. Morris Park, and to be given at various other parks. The films illustrate the methods of combating tuberculosis.

To Teach Sex Hygiene.—The purpose of the American Federation of Sex Hygiene, which was recently incorporated with the Secretary of State, is to foster throughout the country the voluntary education of the public in the physiology and hygiene of sex, including a study and application of every means for the prevention of vice and its diseases.

United States Asked to Loan Health Service.—The government of Ecuador has asked the United States to send Dr. Gorgas and staff to survey the port of Guayaquil, and advise a plan of effectual sanitation. The request will doubtless be acted upon favorably by the government, as it is to our interest to help our neighbors rid themselves of plague infection.

Diphtheria and Milk.—A milkman in Woodbridge, N. J., continued to deliver milk to his customers after diphtheria had appeared at his farm. In a short time the epidemic was raging in the city, making it necessary to close nearly all the schools and churches. It would seem to us that something ought to be done to that milkman that would teach other milkmen a proper lesson.

The National Platforms and Health.—Both the Republican and Democratic platforms refer in clear language to the importance of guarding the public health. But only the Democratic platform goes on record squarely in favor of the provisions of the Owen Bill or similar measure for providing an efficient federal health service. The Progressive Party also stands squarely for the provision of the Owen Bill.

Sex Hygiene in the Schools.—Orange, N. J., has finally decided, after months of discussion, to teach sex hygiene in the schools to girls over fourteen.

A Leper Republic.—The government of the Philippines has established on the island of Culion, where a leper colony is located, a miniature republic. The only American on the island was elected first president.

Health Talks at Atlantic City.—During the sessions of the American Medical Association at Atlantic City, health talks were given at the Sunday services in the various churches, by prominent sanitarians who were attending the association meetings.

Parent Convicted of Cruelty.—A child of five years, in France, was found to have a cleft palate. The school officer recommended an operation for the relief of the condition, which the father refused to permit. The matter was brought before the Society for the Prevention of Cruelty to Children. The father was prosecuted and convicted. This is the first case in France in which a parent has not been permitted to refuse operation on a child. The decision in the interest of the child would seem to be just.

Too Much Ozone.—Not so very long ago, there was installed in the Austrian Parliament Building a plant for the supply of ozone during the sessions. Since then members of parliament have been continuously complaining of rheumatism and colds, and there has been an unusually large amount of sickness. While this may be due in part to drafts caused by the new apparatus, it is also due in part doubtless to excessive ozone in the air, as ozone is quite apt to affect unfavorably persons with rheumatic tendency.

Just Common Sense.—The Socialist administration in Milwaukee has shown that it is able to do things as well as to "point with pride" and "view with alarm." The city attorney has notified owners of buildings that quarter the social evil, that they will be held financially responsible for any crime or disease inflicted upon the community by this district. After consulting the law to find out what could be done concerning "this invasion of property rights," the owners found that the city attorney had the right of it, and immediately this district of Milwaukee, which has existed for years, protected by the police, was wiped out without the necessity of one arrest. This is one good score for the Socialists.

Ozonized Air in London Tubes.—The Central London Railway first tried the experiment of pumping pure air into its tubes in order to render them more sanitary and to counteract the foul odor. Whether or not they were rendered sanitary deponent answereth not; but they still retained their fusty odor. Now about one part of ozone is added to a million of air pumped in, and it has caused a remarkable freshening of the tube air, noticeable by both passengers and employees.

Inquiry Into Nostrums.—The patent medicine people in England are vigorously opposing the proposal to require them to state the composition of the nostrum on the label. Just put on the composition, take away the air of mystery, let the people see what it is they are paying a dollar a bottle for, and the patent medicine sales would drop off fifty per cent in a short time, and the people would be better off healthwise and moneywise, but the patent medicine men would not fatten so fast. That's where the shoe pinches! Let the good work go on.

No More Copper Salts to Color Vegetables.—The government Pure Food and Drugs Board held that peas and other vegetables colored with copper salts are adulterated, within the meaning of the law, and ordered that after Jan. 1, 1913, all imports thus "greened" would be subject to condemnation, and interstate shipments likewise adulterated be liable to confiscation. The decision followed a report by the Remsen referee board that "even small quantities of copper may have a deleterious action on health, and must be considered injurious." The new ruling affects practically all imports on French peas.

Food and Drugs Act Enforced.—During April, May, and June, five hundred cases of violation of this act were reported to the Attorney-General for prosecution. This is all very well, but the difficulty is that these offenders get off with fines so ridiculously small that it makes one smile, if it does not make him indignant. They certainly can not have such deterrent effect, and they seem to cost the government an immense amount in proportion to the amount of good they accomplish. The defect seems to be in the wording of the Food and Drugs Act, which in its present form, is quite seriously in need of amendment.

America at the Olympic Games.—The American athletes have not only swept the board in the track and field events, but they head the list in all events combined, including shooting, swimming, lawn tennis, football, fencing, and miscellaneous sports. In some of these miscellaneous events, especially those in which women are the competitors, there are no American entries. The wonderful record of the American representatives at Stockholm can not but be gratifying to the American people, not only from a patriotic point of view, but as an evidence of American appreciation of the value of outdoor life and physical development.—*The Outlook.*

The Fly Problem Solved.—It seems people know how to handle the fly problem in Bavaria. An enterprising American firm wrote to the United States consul in that country, offering to send samples of a new warranted-to-stick fly-paper that might be distributed in Bavaria, in the hopes of promoting sales. The startling answer was returned that there was no market for fly-paper in Bavaria, as there were no flies. The fact is the people there are so extremely clean in the matter of vacant lots, playgrounds, stables, etc., that flies would starve. It might be a good place to go for a summer vacation.

Prevention of Teeth Decay.—Professor Pickervill, of the University of Otago, has issued a valuable book treating on oral hygiene, which contains some statements worth pondering. In his work he does not depend upon brushes or antiseptics; by his method of prescribing a diet to his patients, he has succeeded in checking the decay when it has begun and of preventing further decay. His theory is somewhat as follows: In order to prevent the retention of fermentable carbohydrate around the teeth and thus reduce the important factor in decay, starch and sugar are never to be eaten alone, but always accompanied with a substance having a distinct acid taste, or else followed by a substance having an alkaline potential. In order to effect this, the starch and sugar should be eaten in connection with fruits and vegetables. If we may believe Professor Pickervill, there is no advantage in the use of tooth-powders and mouth washes, and our own judgment and observation will tell us that decay goes on just about as merrily in some cases when these are used faithfully and frequently.

Caffein the Cause of Goiter.—"The remarkable frequency of goiter in youths applying for examination preliminary to enlistment, inaugurated a series of questions, one of which, 'What beverages do you drink?' in every instance brought out the answer, 'Coca-cola.' The simple action of caffein may or may not be the cause of this condition; it is nevertheless open to suspicion that in the examination of thousands of men, aged from seventeen to twenty-eight, this defect has caused a large number of rejections; and I am personally of the opinion that the suspicion of some years ago—that is, caffein stimulation—is well founded. In questioning these men, I did not suggest, I simply prodded for the thing and got the information, and it has never been lacking." So writes Dr. Von Wedekind, surgeon of the United States Navy, in the *Journal A. M. A.* The suggestion is well worth considering, only one wonders why if it is the caffein, he does not get the answer of "coffee" instead of "coca-cola," to his question in some cases. It certainly must be a fact that some of the applicants drink coffee instead of coca-cola. If coca-cola produces goiter, and coffee does not produce goiter, one should look for some cause other than the caffein.

Killed by Tobacco.—"Two of the Holstein grade of the reformatory herd died suddenly as the result of eating a small quantity of tobacco leaves," says a recent newspaper item. It gives the following particulars: "Men had been cleaning tobacco raised on the institution farm, and had been directed to place the stems in a heap near the barn, from which place the greater part had already been hauled away. Two of the grade cattle nibbled at this pile in passing to the barn. Upon reaching the barn, they were seized with a chill, after which they perspired violently. The animals then stiffened out, and died within twenty minutes. . . . Tobacco chewers of the human family can gather from the above incident some idea of the strength of the deadly quid."

Soldiers to Have Shoes to Fit.—An investigating committee appointed four years ago to consider the matter of shoes for the soldiers, has recommended a much broader shoe more in keeping with the natural shape of the foot. It was found that the broad shoe, made to fit the foot, gave no discomfort in a march of 117 miles, whereas the old form of shoes, made with the idea that the foot would be fitted into them, caused a large proportion of the men to suffer very severely from foot trouble before the end of the march. Some of them were forced to quit the march altogether. X-ray pictures taken of the feet of a soldier carrying a burden of forty pounds, showed, in the natural-shaped shoe, the toes in natural position, and in the narrow shoe of the ordinary type, some of the toes cramped over others.

Open-Air School Dedicated.—An open-air school has recently been opened in Rochester, which is financed by three different organizations. The Rochester Public Health Association contributes the equipment, and will give general supervision of the school. The board of education contributes a teacher and school desks. The board of managers of the Iola Sanitarium provides food for the children, as well as medical attention. The people of Rochester are determined that their children shall not grow up with a handicap preventing them from earning a decent living.

On the Use of Saccharin in Foods.—According to Food Inspection Decision 146, there appears to exist a misconception of the position of the Department of Agriculture as to the use of saccharin in foods as announced in Food Inspection Decision No. 142. That decision prohibits the use of saccharin in foods. The law defines the term "drug," and it is considered that saccharin has its proper place in products coming within this definition. It is recognized that certain specific products generally classified as foods, and sweetened with saccharin, may be required for the mitigation or cure of disease. It is not intended to prohibit the manufacture or sale of such products, provided they are labeled so as to show their true purpose, and the presence of saccharin is plainly declared upon the principal label. This must not be interpreted to mean that the use of saccharin in foods prepared for ordinary consumption is permissible even if declared on the label.

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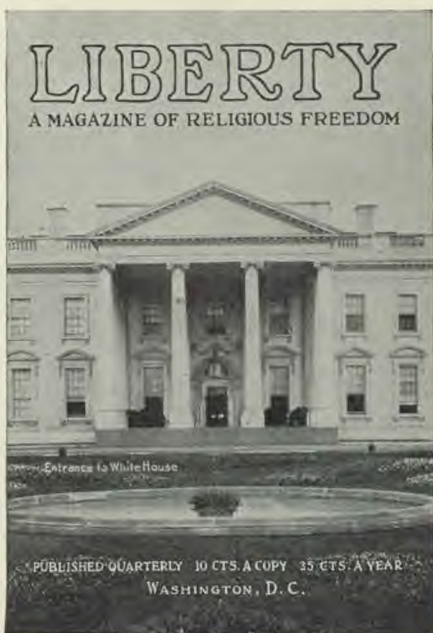
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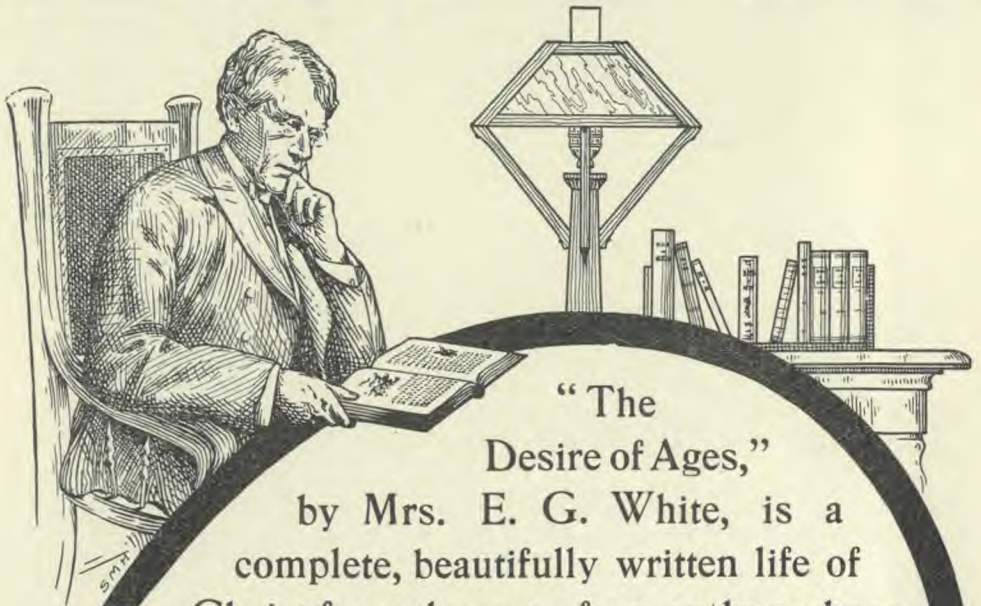
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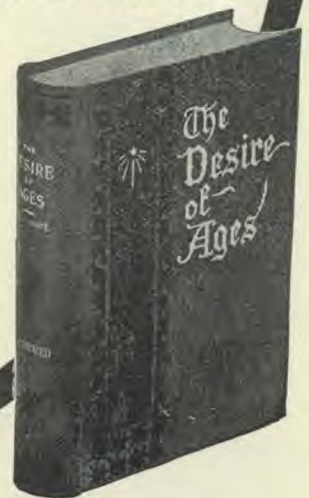
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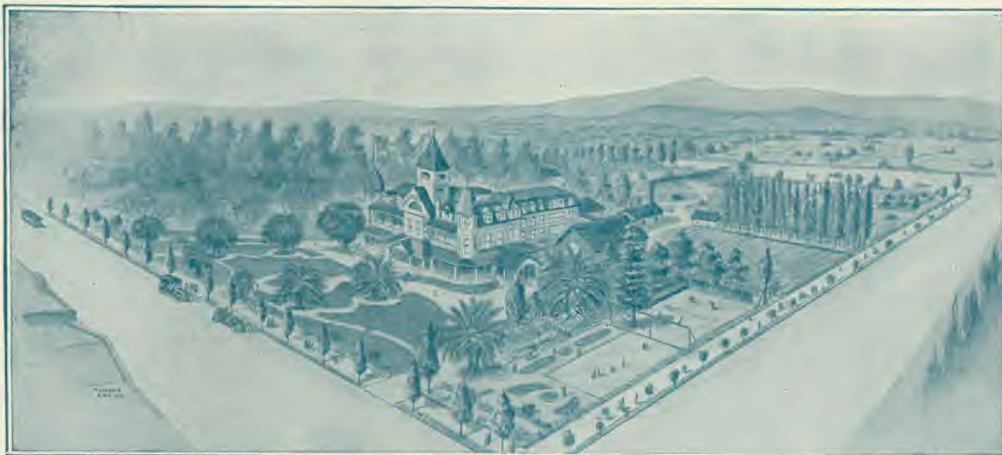


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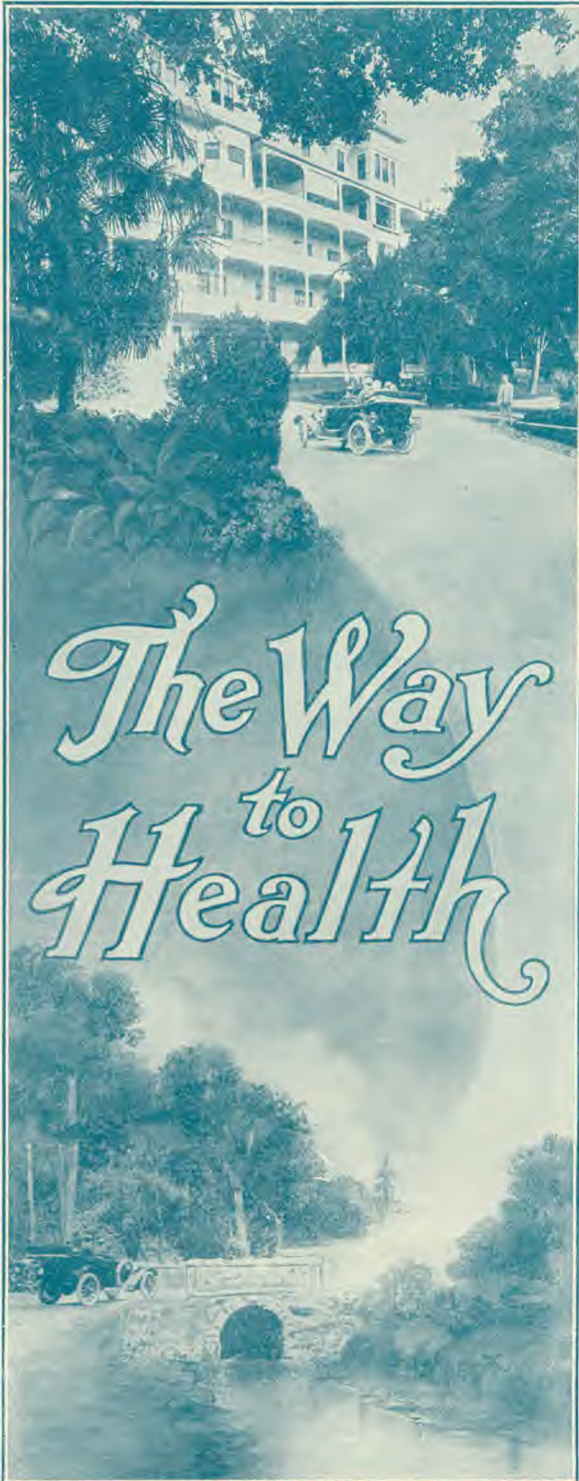
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