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THE NATIONAL HEALTH MAGAZINE



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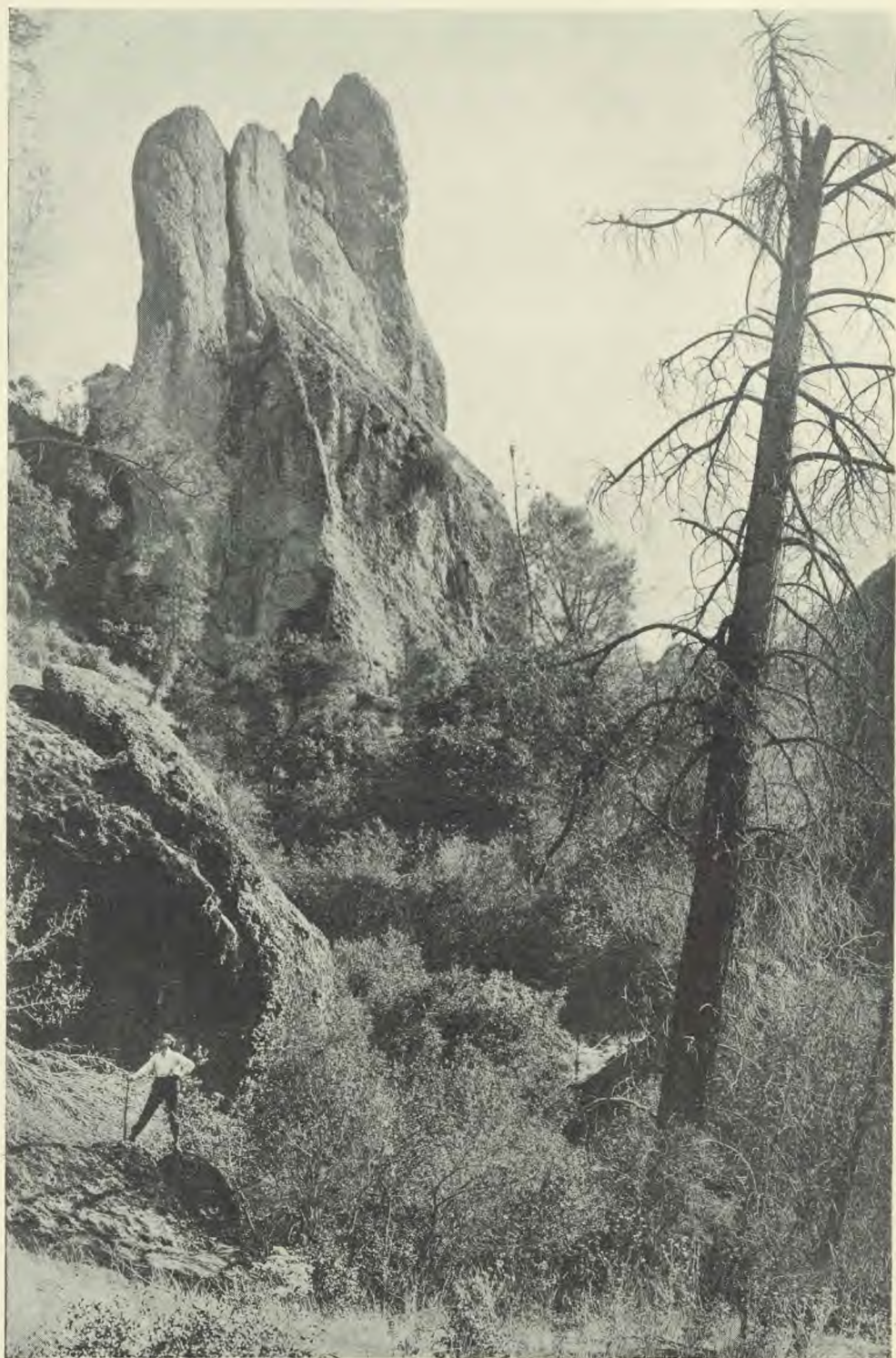
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THE NEEDLES, CALIFORNIA

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

George Henry Heald, M. D., Editor

ECHOES FROM THE CHILD LABOR CONFERENCE

THE employers justify the child's work because the goods are perishable and must be put up immediately. You ask if the children are not perishable, and they can not understand. That this exploitation of the children is unnecessary is proved by the fact that some canneries do not work children. It is merely a question of more efficient planning on the part of the canner and better supervision on the part of the State.

FLORIDA has now before its legislature a proposed code to protect the oysters and fish of the State. It does seem that some legislation to protect the human resources of the State might justly precede this attempt to protect the oysters. There is no closed season for children. These States through their acts of omission permit unscrupulous industrial lords to take the little children during all seasons, and stunt their growth by exhausting toil and unnatural burdens on their weak shoulders. As we cast these little crumbs of humanity on our turbulent industrial waters, unlettered, not strong, and with their ideals shattered, so are they returned to us by way of the almshouse, the hospital, the prison, and the street.

BACK of all attempts to secure proper legislation and proper inspection lies a greater work, namely, that of making the people themselves feel such a need for improvement that they actually demand that it be made. If the community only knew the worth of children and could only place the proper estimate upon child life, children would come into their own at once. The one thing which palls upon me is the absolute indifference of our own mill people to these problems. It looks all right to them to see little girls hurrying along at six in the morning to spin all day long and never know the pleasure of jumping the rope in the glad sunshine. They even think it is a good thing to be given an opportunity to place their fifteen-year-old daughters at all-night work, forgetful of the moral risk in such business.

THERE are worse things than poverty. It would give me great sorrow to see my people begin to move from their mountain homes to our mills. Before any man starts, he must have already made up his mind to throw the burden of family support upon the shoulders of his wife or his children. When a mountain man decides to do this, he has lost the best part of him. Men don't hire out their children in my county, and the average of intelligence is better than that of any mill village known to me.

ABOLISH child labor and the child can go to school. Then the wage scale will rise to the point where a man or woman can support the family, where educated and intelligent workers can make their own terms as to hours and wages and the conditions of labor. This is not theory but history. In England, after a century of struggle, these things have happened in the cotton-mill industry. There is no reason under heaven, save that of unenlightened greed, why the same industry in the South should not be put upon a better basis than anywhere else in the world, so that it shall become one of which we can all be proud rather than one whose profits smell of blood.

WHILE the employees have become more helpless, their employers have grown more powerful. The only freedom yet retained by these helpless operatives is the liberty of changing their feudal lords, and there have been such bitter complaints of the migratory character of the cotton-mill workers that I look to see some baronial edict put forth that no family will be employed at one mill that moves from another without the employer's consent. This feudalism is sometimes called a benevolent feudalism, because it sometimes builds, out of the surplus made by the labor at low wages of the workers, schools, hospitals, libraries, etc. But there is no benevolent feudalism. The expression is a contradiction in terms. The best benevolence would be to increase the pay-roll so that the employees might do some of these things for themselves.

PREVENTIVE VACCINATION AGAINST TUBERCULOSIS

H. J. Achard, M. D.

[For some weeks the country has been seething with the sensational accounts appearing in the daily papers regarding the wonderful work Friedmann is going to accomplish with his antituberculosis serum. There are some, however, who think the whole thing looks like a grand publicity scheme on the part of the German doctor. At any rate, his secrecy, his determination to patent his process, his haste to accept fees for his experimental work, all tend to make the medical profession at large look upon his work with more or less distrust.

In 1903 Dr. Friedmann published four articles in Germany relating to the discovery of tubercle bacilli in the lungs of a turtle which had died of spontaneous tuberculosis in the Berlin aquarium. The germs were found to be "acid fast" and to grow best at a temperature of 98.6°, and to be more like the human and bovine than the avian tubercle bacilli of Koch. As a result of inoculation experiments with this bacillus, all the cold-blooded animals succumbed, but none of the warm-blooded animals except guinea-pigs, and they only when injected with enormous doses.

Friedmann's fourth article mentioned that the turtle bacillus is especially advantageous for producing immunity. Articles by him appeared in 1904 and 1905, partly in answer to criticisms, but with no new developments. From 1905 until 1912 it appears that no new articles were published over his name, at which time his now-famous article in the *Berliner Klinische Wochenschrift* (Berlin Clinical Weekly) appeared and attracted wide-spread attention.

At the time of this writing, his cure is being investigated by the Public Health Service, who are according him all the courtesy that seems prudent under the circumstances. Meantime there is manifested a little hysterical haste, as in the case of the congressman who attempted to have a bill passed to grant the German doctor special privilege to practise in the District.

As with all good things, this, if good, can afford to wait until it has been tried out thoroughly. If the doctor is only a hair-brained enthusiast, or if he is trying in this remedy to build up a fortune on the woes of humanity, and is taking this way to advertise himself, we shall have cause later to congratulate ourselves if we have not jumped too hastily at the supposed cure.

The preventive treatment proposed in the following article, and suggested by Dr. Karl von Ruck, is in no way connected with the Friedmann treatment, and is given here rather by way of contrast. This treatment is now under investigation by the Public Health Service, and also by Medical Inspector E. R. Sitt, U. S. N., for the Navy Department.—Ed.]



At the meeting of the North Carolina Academy of Science, held in Greensboro, April 25, 1913, Dr. C. A. Julian, of Thomasville, N. C., presented a report of some work done in the Baptist orphanage under his medical charge, which is of far-reaching importance, and the results of which I desire to communicate to the readers of LIFE AND HEALTH as concisely as may be done.

Permit me to say at the outset that the results of the present international struggle against tuberculosis are necessarily as yet unsatisfactory. I say necessarily, because it is only thirty years since the cause of tuberculosis was discovered, and it is little more than twenty years since the general warfare against the disease was initiated. Small wonder, therefore, when the end of the crusade is not by any means in sight! With the tremendous prevalence of consumption and the many ways in which consumptives can

infect others, even unintentionally, it is practically impossible for the well to guard themselves and their children against infection; and because of this fact a great fear has developed in the minds of many, which leads them to shun consumptives. The warfare against tuberculosis has degenerated into a warfare against the tuberculous. This is as wrong as it is futile.

Since it is manifestly impossible to isolate all consumptives and to eliminate all possible sources of infection (even if it were well to do so), the only other way, and indeed a far superior way, is to protect the well against the disease, against the consequences of the unavoidable infection (of course, infection can develop into disease only if certain conditions are given), that is, to immunize, or vaccinate, the well against tuberculosis by producing in their blood the power of destroying the tubercle bacilli as they are introduced into the organism.

It is with a remedy which accomplishes this object that Dr. Julian's report is concerned, a remedy which was worked out after many years of investigation by Dr. Karl von Ruck, of Asheville, N. C.

We understand by immunity the power of the organism to render disease germs harmless, either by killing them or by neutralizing the poisons which they develop or which are formed out of the dead germs, or both. The most satisfactory manner in which germs can be killed is by destroying them so that they are at first broken up into granules and then dissolved without leaving a trace. However, it is necessary that the solution which contains these dissolved germs should no longer be toxic, or poisonous, in order to obviate all further possibility of harm. All these requirements are fulfilled in the prophylactic remedy prepared by Dr. von Ruck, and this can be shown in the following manner:—

If we take a small amount of blood from a non-tuberculous person, and allow the serum (blood water) to separate, and then add to the serum a number of tubercle bacilli, many times more than would be sufficient to kill a guinea-pig, and if we "incubate" this mixture by keeping it at body temperature for several hours, we can then, by examining under the microscope, find all tubercle bacilli unharmed, and if the mixture is injected into a guinea-pig, the animal will become tuberculous and die in from six to ten weeks, sometimes as soon as four weeks, after infection.

Now suppose we immunize, or vaccinate, that same person with Dr. von Ruck's remedy, and five or six days later, or ten months later for that matter, take a few drops of blood from a needle prick in the finger, allowing the serum to separate. If we add to this serum the same amount of tubercle bacilli as before and incubate, it will be impossible to find any of them under the microscope after about ten hours. They have been broken up into granules, which, in their turn, are dissolved. And if we inject this mixture into a guinea-pig, it will not become tu-

berculous. If killed and cut open after three, six, or twelve months, it will be impossible to find any trace of tuberculosis. This means, of course, that the blood serum of the immunized person has killed and destroyed these tubercle bacilli, and it stands to reason that, if this person inhales tubercle bacilli, or if any of them enter his body in any way, the blood will destroy them just as promptly and just as certainly inside the body as we have seen it destroy them in the test-tube.

This is actually what did happen to Dr. Julian's children. In October, 1911, Dr. von Ruck vaccinated, or immunized, two hundred sixty-two of the children in Dr. Julian's charge, and in 1912 the latter administered the same treatment to one hundred thirty-one other children. In by far the most cases this was done by a single injection, under the skin of the arm, of a small amount of the remedy; in only a few children who showed evidences of active tuberculosis it was held advisable to give several much smaller doses at intervals of five days, so as to make sure that the children should not become harmed by any reaction that might occur.

It was found that after five days the blood of these children invariably had acquired lytic power, which means that it was capable of dissolving tubercle bacilli and of destroying their virulence, or their power to cause tuberculosis even in so susceptible an animal as the guinea-pig. In other words, the children were actually immunized, and they were found to have retained their immunity many months later by actual examination. The scientific proofs of this experience are published in medical literature.

In regard to the clinical or practical proofs, which anybody can understand, Dr. Julian gives the comparative weight of one hundred nine of the children immunized in 1911 and of one hundred ten of those treated by him in 1912.

Of the former series the records were taken before vaccination and again fourteen months later.

Sixty-six tuberculous children had

gained an average of 20 pounds each, or 26.5%.

Twenty probably tuberculous children had gained an average of 13.8 pounds each, or 24.2%.

Twenty-three normal children had gained an average of 8.8 pounds each, or 12.9%.

Of the series of 1912 the records were taken before and again three months after vaccination.

Thirty-six tuberculous children had gained an average of 10.1 pounds each, or 16.1%.

Forty-eight probably tuberculous children had gained an average of 13.8 pounds each, or 13.9%.

Twenty-six normal children had gained an average of 3.6 pounds each, or 4.3%.

This shows of course that the tuberculous and the probably tuberculous children were not only protected against the further progress of their disease, just as the normal children were protected against its acquirement, but that in the former the nutrition was improved so materially that a curative effect was evident. And, indeed, those children who had had fever, cough, and other symptoms of consumption had lost them entirely; in those in whom the glands on the neck or in the armpits had been enlarged, showing tuberculous changes to have occurred, these glands had either become very small and firm or they could no longer be felt at all. The very much greater gain in weight in the tuberculous and probably tuberculous children over that in the normal children shows that the increase in the former was not only

that which we naturally expect in growing children, but that it made up for a loss that had been sustained through previous disease.

Dr. Julian's report contains many more points that would be of interest, but the space at my disposal is short. What I have said will, I believe, prove the remarkable fact that we have in Dr. von Ruck's remedy a means by which we can, with a single injection under the skin, and without danger, with almost no pain and without any sore arm, immunize children and adults so that they are protected against tuberculosis.

We can further, by means of a single injection, or at the most by a very few, so increase the resistance and nutrition in early cases of tuberculosis that the disease will promptly be arrested. While in the latter class of cases there will be some sore arms, some redness and swelling, on account of the unavoidable reaction, there are no abscesses and no pustules as in vaccination against smallpox. In most cases the children had nothing at all to say about pain.

I may add that Dr. von Ruck's remedy does not contain tubercle bacilli, either living or dead, but that it is made from the bacilli by extraction, by a process the particulars of which are published in medical literature.

What this remedy means, not only to tuberculous patients, but to the well, to parents, to children, to the whole world, is difficult to appreciate. In my opinion it is one of the most remarkable, one of the most beneficial, discoveries that has ever been given to mankind.



NATURE'S DEFENSES

Wm. W. Worster, A. M., M. D.



THAT the body is physically in constant warfare with an invisible foe is now a generally recognized fact. Though the enemy is unseen, its action in many instances is more ferocious than that of the wild beasts of the forest. This enemy consists of minute pathogenic bacteria, or in more simple language, disease-producing germs.

They attack us from without and within, and are no respecter of persons. In fact, more deaths occur as a result of their action than are caused by all the armies of the world. Being invisible, they are very deceptive. If we could see them, we should flee in horror; but because we can not, we many times become their victims. Hence it is necessary for us to be constantly in fighting trim, with our defenses always safe and reliable.

The strength of an army depends as much upon its defenses as upon its numbers, if not more. This has been demonstrated in nearly every military engagement. Three hundred Spartans were able to hold back the hordes of the Persian army. This was evidently due more to defense than to numbers. These defenses may be either natural or artificial. They represent the usual artillery, embankments, trenches, forts, and the like. The body in its constant warfare against germs and their toxins, depends wholly upon its defenses. These, like those of the army, may be natural or artificial, or more technically speaking, natural or acquired.

Natural Defenses

The natural defenses of the body may be divided into two classes, protective and destructive. The former include such defenses as protect the body against the entrance of germs; the latter are those which destroy the germs in case they pass the first line of defense. Among the protective defenses possibly the most important is the skin with which the all-wise Creator has covered the body. This is to

the body what an armor is to a modern war-ship. The nose and throat are parts of the body unprotected by this armor, and as a consequence, need special protection to safeguard them against the inroads of the enemy.

The nose is protected by numerous hairs, which catch the bacteria from the germ-laden dust and prevent their entrance into the lungs. Perchance these should fail to filter from the air all the germs, or one should be a mouth breather, nature has a second and possibly more efficient protection. The trachea, or windpipe, is lined with short, fine hairs called cilia. These have a constant upward motion. The germs usually lodge in the mucus secreted by the bronchial tubes, and the cilia carry them upward until voluntary action expels them from the body by a cough. The mouth and throat would form the most easy route for the entrance of germs into the body, were it not for the gastric juice in the stomach. This juice contains a dilute solution of hydrochloric acid, which, when in normal amounts, has a germicidal action. That the gastric juice contains this acid for its disinfectant properties is more evident when we consider that of all the digestive juices, it is the only one containing an acid.

If perchance the germ should gain entrance into the body, it at once begins the formation of a toxin that is more disastrous to the body than the germ itself. Fortunately, the body is provided by nature with defenses to destroy the germ and to neutralize its toxin. The blood, the medium by which the germ would be carried through the body, manifests in health a decided germicidal action. But the body does not depend upon this. It has special and more powerful defenses.

Germs that gain entrance into the body through an abrasion of the skin caused by an accident do not pass directly into the blood stream, but are picked up by the lymph, which passes through a series of

lymphatic glands before gaining entrance into the general circulation. These glands have a decided and positive destructive action upon all germ life. Sometimes the first gland is not capable of destroying all the germs, and the remainder pass on to the next gland. Many times the glands filter out the germs, but are unable to destroy all of them. In this instance the glands are the seat of an inflammation which may result in suppuration. Tuberculous glands of the neck are good examples.

If the germ gaining entrance to the body with water or food escapes destruction by the gastric juice, it may be absorbed by the small blood-vessels and carried directly to the liver, where it usually meets death; in fact, the liver and the lymphatic glands may truly be called the life preservers of the body.

If, however, neither the liver, the lymphatic glands, nor the blood destroys the germs, the invaders are usually lodged in some portion of the body, and there excite a diseased condition. Now another means of defense is brought into play. Nature sends a large amount of blood to the affected part to "wall it off." This process we term inflammation. The white blood-cells are despatched to this infected field, and at once begin a hand-to-hand encounter with the germs. The blood-cells usually succeed in destroying them, but in case they fall victims to the germs, the dead cells manifest themselves in the form of pus. If enough cells succumb, an abscess is formed. The pus discharged from such abscesses, in the past was looked upon as corruption extracted from the blood, and as a result the body was considered to be in a much healthier condition than before. This is in no sense true. The body would have been stronger had it retained these white cells in the living form.

If the germs temporarily overpower the white cells, or the struggle is somewhat delayed, the germs are very active in the formation of their toxin, which is readily absorbed in the blood. It is the

amount of the toxin that produces the severity of the disease, and not the amount of germs actually present. During the time that the white cells are carrying on their warfare, the blood is making a new substance called antitoxin, which neutralizes the toxin. This saves the body from a fatal intoxication. It is the amount of this antitoxin manufactured in excess of the real amount needed that determines the immunity of the patient against certain diseases. Some antitoxins are more stable than others, and for this reason immunities against certain diseases are more lasting than others.

Acquired Defenses

Advantage is taken of the destructive defenses to produce an acquired defense. Blood serum from animals that have been immunized against certain diseases is injected into the blood of human beings to give them a relative immunity against the same diseases. Special advantage is taken of this in the antitoxin administered in diphtheria. Another form of acquired defense is that used in the prevention of smallpox. This is an injection, not of antitoxin, but of the real toxin. The body at once begins the manufacture of its own antitoxin, and thus produces the same effect as when the antitoxin is injected.

Recently there has been discovered a new substance to increase the defenses of the body. The introduction hypodermically of several million dead bacteria will produce a reaction in the blood which increases its power to destroy the live germs of the same kind. This not only gives acquired immunity, but can be used as a destructive defense if injected during the disease. It bids fair to revolutionize the treatment of germ-diseases.

In consideration of the defenses with which nature has so amply provided us, it behooves each one of us so to care for his body that he will always be in fighting trim. It is better to prevent a disease than to cure it. An ounce of precaution is better than ten pounds of cure.

THE MYSTERY OF TOBACCO

James Frederick Rogers, M. D.



T would seem that a thing which is so widely and commonly used as tobacco must be very useful; yet when one attempts to discover just wherein that usefulness lies, he finds anything but a satisfactory answer.

On the surface its use is chiefly "to smoke," but smoking in itself lies rather out of the realm of utility. A smoking fireplace is not the most useful one. To the uninitiated the smoke of a wood fire is more savory than that from a cigarette; while the consumer of the weed, enveloped in his pungent veil, responds to our questioning in rhapsodies which render the explanation for his puffing as hazy and intangible as the clouds which emanate from his cigar.

Almost until the seventeenth century the consumption of tobacco was confined to the western continent. The remainder of the human race flourished, however, without it, making smoke where smoke seemed needed, by burning incense of other nature, and working off their superfluous energy by chewing straws or whittling pine sticks. Aristotle, Cæsar, Paul, Dante, Copernicus, Michelangelo, Columbus, to mention only a few worthies, worked quite contentedly and competently without so much as a whiff of the "divine weed." No greater names have been recorded in any field of work, and no vaster enterprises in which

skill and strength were needed have been accomplished, since tobacco became a part of the white man's burden.

Tobacco smoking was introduced into England about 1586. The courtiers of Elizabeth set the fashion, which traveled rapidly through Europe and Asia. The fact that tobacco was believed to possess marvelous medicinal properties may have had not a little to do with the spread of the practise, which was also aided, rather than checked, by the strenuous opposition it received from statesmen and clergy. James I was especially bitter against it, styling it "the lively image and picture of hell." Humbler men than Jamie the Scot have had similar impressions after smoking their first cigar. The monarch's more specific objections to the practise were: "First, tobacco is a smoke; second, it delighteth them that like it; third, it maketh men drunken and light in the head; fourth, he that taketh tobacco saith

he can not leave it, it doth bewitch him." James proceeded at once to turn the evil into good for himself by putting a tax upon tobacco, a stigma upon its usefulness which it has not to this day been able to shake off. Cromwell had a strong dislike for it, and sent his soldiers to uproot the plant in the fields. It is related that the soldiery retaliated very irreverently by smoking profusely at his funeral.

Vile - looking, vile-smelling and vile-tasting things



The courtiers of Elizabeth's time set the fashion of tobacco smoking.

were formerly believed to possess especial healing properties, on the principle that evil drives out evil; and it is no wonder that, on first acquaintance, tobacco should have been believed to have virtue in this direction. In praise of its usefulness a writer of 1599 pronounced it powerful to "cure any grief, dolour, imposture, or obstruction proceeding of cold or winde, especially in the head and breast. The fume taken with pipe is good against Rumes, Catarrhs, hoarseness, ache in the head, stomach, lungs, heart; also in want of meat, drink, sleepe or rest." Alas! we have come to know it more intimately! and since that utterance many other cure-alls, material and immaterial, have flourished and faded. Tobacco finds no place to-day in therapeutics, and is not even considered fit for a poultice.

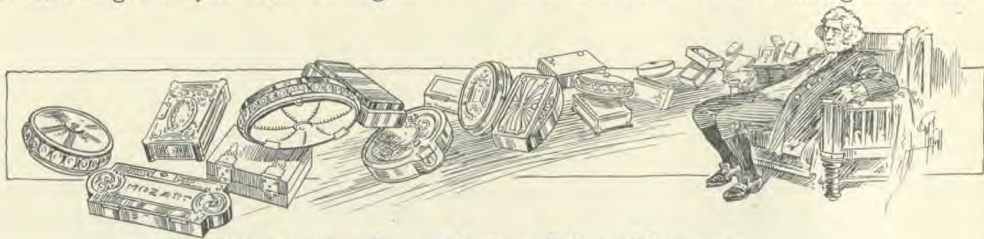
Habitual users of tobacco claim some pleasure from it, though their description of that pleasure is usually vague. The most careful laboratory study of the weed has been made by scientists, and they, too, are uncertain as to its effects. Dr. Cushny, one of the highest authorities, says, "It is not even proved that nicotin is essential to the pleasurable result." It is affirmed and denied that smoking gives repose and thereby aids intellectual work, and investigators are not agreed as to whether it increases or diminishes nervous activity. The only explanation offered for the pleasure-giving effects are the rhythmic movements of the mouth and the presence of the smoke. The latter reason is supported by the fact that all pleasure in smoking ceases with many persons if they are obliged to smoke in the dark. A recent British writer attributes the pleasure to the effect of smoke in shielding the eyes from the light.

The effects of overuse of tobacco are easily discovered. A chronic inflammation of the throat is very common. This is produced through the irritation of the smoke, and is accompanied by oversecretion of saliva, which, if it does not find its way into the spittoon as waste digesting fluid (if it misseeth not), is carried to the stomach, where the dissolved nicotin it contains produces dyspepsia and impairs the appetite. Palpitation and irregular action of the heart follow excess, and also impaired vision, with general derangement of the nervous system.

The joys of tobacco are loudly hymned from time to time, and a whole book of verse in its praise has been collected. Its compiler in frenzied eloquence exclaims, "As for Adam and Eve, if there had been no tobacco plants in Eden, it was a sorry place, and they were better out of it." He rails at Tennyson and Browning for their lack of loyalty to the weed in not furnishing him with copy for his pages.

We have noted that the world got along wonderfully well before the finding of tobacco, and we do not see that it has done so very much better since the discovery. Of great men of the tobacco age, Kant, Tennyson, Carlyle, Lamb, Brahms, Stevenson, and others reeked with its odors; but Cromwell, Wordsworth, Dumas, Swinburne, and others could not abide the thing. Napoleon pronounced its use "a habit fit to amuse sluggards." If it is an inspiration to genius, genius often gets along amazingly without it, and sometimes the common man also.

Tobacco serves a modest use, a second-hand one we might say; we refer to its use in literature. What would the novelist do without such little filling asides as,



Mozart was what might be called snuff-box poor.

"Here he flecked the ashes from his cigar," or, "He puffed fiercely to hide the rising tide of his emotions," or that inimitable touch in Silas Marner, where, upon the sudden appearance of Silas before the guests at the Rainbow, "The long pipes gave a simultaneous movement, like the antennæ of startled insects"? Tobacco is trying hard in this field to supply a place which a half-century ago and earlier was filled by alcohol. How dry the Waverley tales would have been without their abundant butts of sack, their runlets of canary, and stoops of Burgundy! "Pickwick," as Mr. Young remarks, is "full from cover to cover of brandy and water," and "Henry Esmond" would have lagged along sadly without the accompanying tinkle of glasses and decanters upon the sideboard.

Alcohol is fast retiring from literature because it is rapidly becoming unpopular in every-day life. Will tobacco also presently wane? In the form of snuff it has already retired from polite society. Snuff-boxes were, a century and a half ago, as dear to the user of tobacco as are any of the machinery of smoking to-day. A snuff-box was the most treasured of gifts with which royalty deigned to reward those who gave it pleasure. Mozart, for example, was what one might call snuff-box poor, having received a large number of costly ones for his performances as a prodigy pianist, but very little cash indeed. It is a strange anachronism, as strange an anachronism as

royalty itself, that it is still a mark of high favor for princes to bestow a snuff-box upon their favorites. Will the time ever come when meerschaums, sweet-briers, and calabashes will pass to the realm where, in endless rows, rest the once proud snuff-boxes, while there shall remain on earth a few elaborate models of the extinct species to be passed out as tokens from millionaires to their minions?

Tobacco surely has a feebleness upon human society than alcohol, a grasp as much lighter as smoke is lighter than wine. It is still within the memory of man when it was considered impossible to harvest a crop of grain without an abundant supply of whisky, while two centuries and less ago wine was thought more essential to diet than water. Tobacco has never been so forward in its claims. Work can get itself done without tobacco, and it is far from being held essential for the table. In the training of athletes it is even tabooed, along with alcohol. Statistics of college students seem to show that with them the use of tobacco is on the wane.

Alcohol is going steadily out of favor, not from the preaching of the benefits of temperance, nor because of prohibition laws, though these are the final kicks which hasten its exit from the scene. Such laws have been made possible through what might be called the subconscious attitude of man's body toward the intoxicant, apart from its conscious



It is still within the memory of man when it was impossible to harvest a crop of grain without an abundant supply of whisky.

control. This has been brought about by long racial experience of the effects of the use and overuse of the substance. Our bodies have found the use of alcohol to be, under modern conditions of living and working, an injurious habit for us, and our consciousness is urged to stop its use. It is especially interesting to note that the same contradictory opinions have been held by both scientists and laity regarding the harm or benefit to be derived from the "moderate" use of tobacco and alcohol. All are agreed that the overuse of tobacco is a bad thing; even the overuser admits this. When it comes to the taking of small amounts, it is not determined whether it stupefies or stimulates, or whether it may do either on occasion. In the case of alcohol these antithetic views have been reconciled by careful experiment, and its stimulating effect upon the nervous system has been found to be only apparent and never real.

It may be that the rhythmic movements of smoking and one's gaze upon the wreathing smoke may act to drain away a surplus of nervous energy which would otherwise be turned to self-examination, or find vent in chewing pencils, tapping with the foot, biting the nails, use of a rocking-chair, and like purposeless actions,—a safety-valve of present advantage in an age of high nervous tension until we learn some better means of employing our superfluous force.

The waste of energy in the tobacco habit is accompanied by a waste of material wealth which has often been dwelt upon. The homes, books, music, pictures, clothes, and other things that go up in tobacco smoke year after year for an uncertain but not an unselfish satisfaction, would far better minister to the

body and mind than all the nicotine ever set free since the world began.

Then there is the horror which tobacco begets in those who have never inured themselves to the habit. Such will quite agree with King James's verdict that tobacco savors of hell. Five minutes in a smoker is for such a one comparable to five eons in the nethermost pit. The insensitiveness of tobacco users to the sufferings of others is not good evidence for the beneficent action of the weed. King James was right when he said that the weed

doth bewitch a man. We see the witchcraft in the failure of its users to give an account of its usefulness, and in their inability to give up the practise even when they find it furnishes them no adequate return. We have a special instance in the witchery it wove about Richard Wagner. From early manhood he practised taking snuff. "He did not care for snuff, and even allowed the indelicacy of the habit, but he yearned for the enjoyment of all the 'supposed' luxuries of life. It was precisely the same with smoking. He indulged in this, from the mild and inof-



These would far better minister to the mind year after year than all the nicotine ever set free since the world began.

fensive cheroot to the luxurious hooka, but experienced not the slightest pleasure from it. 'Other people find pleasure in smoking; then why should not I?' This is, briefly, the only explanation Wagner ever offered in defense of the practise,—a practise which he was fully aware increased the malignity of his terrible dyspepsia."

From every lighted pipe or cigar there is unloosed a genie comparable to that which escaped from the fisherman's copper vessel, with the significant difference that this genie never can be persuaded to return to his prison, but remains to dominate his liberator even to such an extent

as to cause him to give up many, many treasures, even to relinquish the

love of a lovable woman rather than break his allegiance to the tyrant. Sooner or later the fascination of the spell wanes, though its binding power usually persists. The bewitched acknowledges the emptiness of the experience, and warns his children; but for himself, it is too late to conquer.

A thing may be used, but it is quite another matter for it to be useful. The properties of tobacco as defined by experience and research are so vaguely made out that one might sum up the matter as briefly as in the account of the snakes in Ireland, by saying that it has no uses. It is used to snuff, to chew, and to smoke, but its

usefulness beyond this seems, as we try to grasp it, to vanish in vapor.



The insensitiveness of tobacco users to the sufferings of others is not good evidence of the beneficent action of the weed.



Five minutes in a smoker to a non-user of tobacco is comparable to eons in the nethermost pit.

A HEALTH CURE WHICH PAID FOR ITSELF

Florence L. Clark

IF we except that large and sorry number of the profession who draw salaries so minute King Midas himself couldn't hoard a penny from them, there is plenty of justification for the statement that women teachers as a rule are good savers.

Sometimes they save dreadfully for old age, sometimes anxiously to pay off a debt, sometimes lovingly to help some one else. But what of the zest with which they save when the purpose of the economies is the gratification of a tired body's longing to "rest up"? That was the lure which made three of us turn thrifty not long ago. So successful were we that our hearts' desire culminated in a long, rapturous, health-producing vacation in the Rockies. To other tired teachers or women workers of any kind who may wish for a similar health-giving change but have not the money to pay for it, our story of how we made the health cure pay for itself may be of interest.

There was something of luck in our success, but more of work and devotion to purpose. The stimulating climate gave the strength and inclination for the work. Indeed, it did better than that; the close of the school year found the three of us in better weight, better health, and better spirits. Our economies had been practised at no sacrifice. On the contrary, they had served to store up a reserve of strength along with the dollars.

We had been teaching several years in the Middle West when we

were "took" in the spring of 1910 with the western fever, a sudden acute case. The map providing addresses, our applications, with post-card photographs—a dollar a dozen—enclosed, were scattered broadcast through the West. Doubtless it can be considered nothing but the purest luck that in the end the three of us were elected to positions in the same city in an intermountain State.

We accepted avidly. No sooner had we done so, however, than we were told, not once nor by one person, but many times by many persons, that we should find the cost of living a hundred per cent higher in the West. Our salaries were to be only a third higher than those we had been drawing. Obviously then, if living did prove a hundred per cent higher, that doubled expense, added to the cost of the long railroad trip, would leave us worse off financially than if we remained in the Middle West. Nevertheless we went, for even a school-teacher dares now and then in a reckless moment to declare, "Money isn't everything."

By the time we were ready to start,

the party had grown to four, one of our number having decided, as school advantages were very poor in her home town, to take her fourteen-year-old brother along and place him in school with her. We were united in the desire to rent a small furnished house if possible, and keep house together, primarily because such an arrangement would be delightful, and furthermore because



WE CLIMBED UP MOUNTAIN TRAILS
ON FOOT

by so doing we hoped to keep down those awful expenses we had been made to fear.

On arriving we walked the town, a place of about ten thousand inhabitants, from outskirts to outskirts, house hunting. After a discouraging week we stumbled by accident upon exactly the sort of place we wished,—a pretty furnished bungalow centrally located. The woman who owned it expected to leave in a few days for a ten months' stay on the Coast, and wanted "reliable parties" to occupy it while she was gone.

We called immediately, and finding everything attractive beyond our fondest dreams, with fear and trepidation asked how much.

"Twelve dollars a month," she answered to our utter amazement.

Had she said twenty-five we should have jumped at the chance and considered ourselves wonderfully lucky. Three dollars a month apiece, and this in the

expensive West! That night we held a jubilee. The end of the week found us occupying our new home.

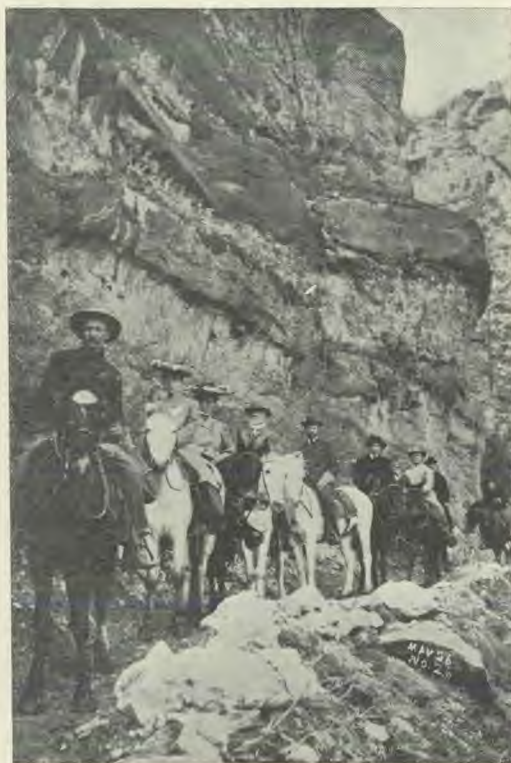
The bungalow had been built with an eye to beauty as well as comfort, and so recently that a new fragrance still hovered. It contained a good-sized living-room and a kitchen, two smaller rooms, a bath-room, pantry, two closets, a small front porch, and a large sleeping-porch. The living-room was L-

shaped with a row of high swing windows. It was finished in mission style, with a Morris-chair, settle, and library table to correspond. In the kitchen was a gas-range, and a zinc-covered table, which, when hooked back against the wall, disclosed two laundry tubs with hot- and cold-water faucets hidden under it. Both pantry and bath-room were finished in white. A little coal-heater stood in one corner of the living-room.

The sleeping-porch was our pride and joy from the mo-



WE CAMPED AMONG THE PINES



CLIMBED MOUNTAIN TRAILS ON HORSEBACK

ment we laid eyes on it. Indeed, I still consider it the beau ideal of sleeping-porches. In the first place, unlike the

usual sleeping-porch, it was the largest thing about the house. The dimensions were twenty-five feet by ten feet. In the second-place, the L-shaped side of the bungalow formed the east and north sides of the porch. By this arrangement the early morning sun, that bugbear of the sleeping-porch devotee, was kept from flooding in, and the north wind in winter was barred out. On its two exposed sides the porch was ceiled to a height of three and one-half feet. This insured considerable more privacy than is afforded by the ordinary sleeping-porch. Above this ceiling, wire netting was nailed to the outside of the joists. Green burlap screens on wooden frames for the spaces between the joists inside the netting were piled in one corner of the porch. These could be hooked in on windy or stormy nights. The porch was so large that we arranged sleeping-places for the four of us, with

plenty of room to spare, by putting up a green denim curtain across the middle.

Our four beds removed to the sleeping-porch, the two small rooms inside remained for dressing-rooms. As the two closets were off these rooms, the arrangement proved most convenient.

We had brought silver, pictures, sofa cushions, pillows, and blankets with us. The bungalow was so well furnished that with these additions and an expenditure of twenty dollars for new curtains for the liv-

ing-room, a few extra dishes and kitchen utensils, a cot and two chairs purchased at a second-hand store, we were very

satisfactorily equipped for comfortable housekeeping.

After laying in supplies, we settled down to what became a most harmonious home life. The problem of an equitable division of labor practically solved itself. The boy of the family agreed to be marketer and errand boy with his "bike," also to keep the coal-hod full and the garbage-can empty.

One of the party was as-



WE DROVE OVER MOUNTAIN ROADS



WE FISHED IN MOUNTAIN STREAMS

signed to a school building at quite a distance from the bungalow. As long as she had to get up early anyhow, she said she would arise a little earlier and prepare the breakfast.

The straightening and cleaning before school in the morning and the preparing of the dinners at night thus fell to the third member of our household and me.

We arranged to run monthly bills at the grocery and market, and have our errand boy leave orders with them each morning on his way to school. The electric-light company gave us a flat rate of two dollars a month. We placed a cash memorandum sheet on the table in the kitchen. On this we made entry of all cash purchases, placing the initial of the purchaser after the entries. By this arrangement our book-keeping was brought down to a very simple basis.

At the end of the first month our day of settlement came. We approached the accounting with some tremors, for it had seemed during the month that we were piling up expenses fast. Imagine the laugh that went around the table, then, when our expense list resolved itself into the following:—

Rent\$12.00

Lights	\$ 2.00
Milk	3.00
Fuel	2.75
House laundry	4.00
Provisions .	42.35

Total ...\$66.10

This sum divided by four gave a living expense of \$16.52 apiece for a month. The figures doubtless seem astounding. They could not possibly seem as absurdly small to any one else as they did to us in the light of value received. In the Middle West we had never paid less than twenty dollars a month for room and board. And now here in the West, where living was rated so much higher, we had cut that expenditure twenty per cent, and had had a delightful home life in addition.

After we had recovered from the effects of the sixteen-dollar expense in relation to seventy-five dollar salaries, we began formulating a

plan for a long summer vacation in the Rockies, to be paid for out of our year's savings. With that delightful incentive, economizing became a pleasure.

As for the work, had we not found we were gaining in strength and weight we doubtless should have hired a part of it

(Concluded on page 264)





THE FARM BABY

Edythe Stoddard Seymour

XI

THE SECOND SUMMER

MUCH of baby's health during the second summer depends on the simple digestible foods he eats. Until he is two years old he should receive little food except the juice of oranges or fresh, ripe grapes, well-cooked cereals, toast, dry bread or crackers with fruit-juice or clean milk over them, roasted potatoes, or lightly cooked eggs.

At two years of age baby should use his teeth. Feed him the pulp of prunes, oranges, cooked apples, ripe bananas, mashed potato, young beans or peas, spinach, finely cut lettuce, and simple puddings. No meat, and only fruit or one vegetable should be taken at a meal; a dessert may be allowed at dinner. Better feed a little scantily during the hot weather. Do not feed a child of this age at night and do not give him much milk to drink. It makes fat and unfits the child to stand the heat.

In case of illness, stop the solid foods until the child is better; give toast and milk or milk and lime-water alone; half an orange or a few pretzels or crackers once between the three principal meals are enough. Give the stomach a chance to rest.

Germes cause some bowel trouble the second summer. Allow baby to play out, but see that no sick chickens droop about to be handled,—better kill them,—and that no slop-buckets or drains stand open for baby to play in. If possible select a nice, grassy, shaded spot that the sun

reaches every morning and fence it in, or place a large box there for baby's play place. Let him live outdoors every minute possible, but under shelter if raining or wet.

Dress baby very lightly. Have summer dresses very thin. No petticoats are needed. If white ones are used for away-from-home wear, they should be very thin. Little jackets of outing flannel are nice for cool days.

Drawers are cooler than diapers, and as easy to wash. Socks and low shoes are cool. Bare feet often get cuts, but for a baby not walking they are best on hot days. Baby can go barefooted in a play box.

Hats and caps are not necessary except to shade baby from the sun on a trip. The washable ones are coolest and most serviceable.

If baby seems overheated, give several tepid sponge-baths during the day under a sheet. This will reduce a fever; often a dose of castor-oil will clean the system and reduce a fever. Fever with vomiting and diarrhea, in the summer, is very serious. Get a doctor quickly in such case.

It is foolish for a mother to stay in all summer because she has a baby. Changes do the mother good, and make her better able to care for the baby. Fretful babies are often so interested in new things to see that they keep quiet and are benefited by an outing.

Dress baby cool. Make a small package of necessary changes. Take a light

wrap for evening. Better take toast and oranges and malted or condensed milk from home. Take a drive, selecting shaded routes or stopping near the water. If necessary to heat baby's food, a small alcohol-stove can be purchased for from ten cents up, and a little denatured alcohol can be easily carried each time.

Avoid hot, sunny localities, and noisy band parks unless there are quiet, cool retreats in them. Do not feed the baby peanuts, frankfurters, pop-corn, candy, fancy cakes, or fruit ice-cream on such trips. A pretzel, if clean, is all right. Health will give more happiness than unhealthful indulgences.

MISUSE OF THE REFRIGERATOR

W. H. Addis

THE uses and possibilities of the refrigerator are not understood by the majority of persons in this country. Most housewives believe that anything that has been kept in the refrigerator is good and wholesome food. This belief exists in spite of the fact that every housekeeper can tell of instances within her own experience where food kept in one of these ice-boxes has spoiled, and consequently been thrown away.

Man must take his food before putrefaction has begun. The savage takes it fresh, or else under conditions that admit of little putrefaction.

As men became civilized, one of the first things to which they turned their attention was that of preserving food, or rather of preventing putrefaction. To begin with, they improved the method of drying meat, by exposing it to the smoke of a fire in place of the rays of the sun. Then the effect of salt was discovered, then that of saltpeter, then that of cold in the form of ice, and finally the effect of cold dry air, which is the highest point reached.

The effect of cold on food is to retard putrefaction, or by freezing, to stop it absolutely. But in household refrig-

erators the food is never frozen. The action of cold in the refrigerator is to delay or retard the process of putrefaction; or in other words, to lengthen the period between death and the time when the food becomes uneatable and poisonous in its effects on the consumer.

The misuse of the refrigerator, to quote the title of this article, lies in the belief that the ice-box will prevent putrefaction. Just as long as its owner regards it as a contrivance which will only retard decay she is safe, and her refrigerator will do her good service.

Probably not one housekeeper in a hundred and not one servant in a thousand has any idea what is meant by keeping a refrigerator clean. Properly, the refrigerator should be washed out once a week, with hot water in which soda has been dissolved. But merely to wash out the refrigerator is not enough; it must be cleaned. This means that the corners must be scrubbed out, the waste-pipe thoroughly cleansed, and the whole thing made as clean as the proverbial new pin. Then, before the ice is put into it, it should be well aired. The solution of soda should be washed out with fresh hot water. This must all be done at least once a week.





HEALTHFUL COOKERY

SALADS

George E. Cornforth



THE following are a few combinations which may be used with the dressings given in the last article:—

Celery and Walnut Salad

Cut celery into small dice. Mix mayonnaise with it. Sprinkle broken walnut meats over the top.

Vegetable Salad

Mix together in any proportion, string-beans cut into small pieces, shelled beans, green peas, cooked carrots cut into dice, diced celery, and chopped olives. Use either mayonnaise or French dressing.

Another Vegetable Salad

Serve on individual salad plates. On each plate arrange the ingredients in the shape of a black-eyed daisy in the following manner: Use a piece cut from the end of an olive for the center of the flower. Around this arrange three-fourth-inch strips of cooked carrot to form the petals. Then use a cooked string-bean for the stem. Sprinkle cooked green peas around the whole. Put bits of mayonnaise dressing here and there on the peas, and arrange little sprigs of parsley around the edge of the plate.

String-Bean Salad

Cut tender string-beans into diamond-shaped pieces. Boil them. When cold mix with them a few olives cut into small pieces, celery cut into dice, and a little onion cut fine if liked. Use either French or mayonnaise dressing, and sprinkle broken nut meats over the top.

Potato and Beet Salad

With a mixture of diced cold cooked potatoes and beets in any proportion, use either French or mayonnaise dressing. A little hard-cooked egg cut into small pieces and grated onion may be added if liked.

Cucumber and Radish Salad

With diced cucumbers and thinly sliced radishes use French dressing.

French dressing may also be used on lettuce, young, tender leaves of spinach, endive, cold cooked spinach, and cold cooked dandelions. The best way to prepare lettuce to use with French dressing is to shred it. To do this cut the large leaves once or twice lengthwise, then pile several leaves together and roll them up

into a tight roll, then with a sharp knife cut across the roll, making fine shreds. Shake the shreds apart. Remember, in using French dressing with this shredded lettuce, to use only as much dressing as the lettuce will take up.

Boiled mayonnaise dressing is sometimes poured, while hot, over young, tender raw dandelions when they are served at once.

Nut Cheese and Potato Salad

With equal parts of diced nut cheese and potato use tomato salad dressing. Onion may be used with this if liked.

I am not including onion in many of these recipes, for its flavor is disliked by many, but it might be added to nearly all the vegetable salads for those who enjoy the flavor.

Spinach Salad

Form cold cooked seasoned spinach in the shape of bird's nests. Place each nest on a lettuce leaf. In the nests place little eggs made from cottage-cheese. Place a spoonful of mayonnaise on the side of the nest.

Carrot and Pea Salad

Over equal parts of peas and diced cold cooked carrots use mayonnaise dressing.

Raw Carrot Salad

Very young, tender carrots which are usually pulled up and thrown away when the gardener is "thinning out" his carrots may be washed, scraped, and sliced, and used as a salad with French or mayonnaise dressing.

Egg Mayonnaise

Cut cold hard-cooked eggs through the center crosswise. Remove the halves of the yolks. Cut the half whites into strips lengthwise of the egg, making triangular-shaped pieces. Place lettuce leaves on individual plates. In the center of each leaf place half an egg yolk. Around each yolk place the triangular pieces of white so that the sharpest corner of each piece is toward the yolk. Drop bits of mayonnaise on the lettuce around the white.

Celery and Egg Salad

With one cup diced celery mix the chopped whites of two hard-cooked eggs. Add mayonnaise dressing. Place on a bed of lettuce



Spinach salad in the shape of a bird's-nest. Graham crackers.

leaves. Slice the yolks and arrange them on top of the salad.

Stuffed Olives

With a cherry seeder remove the stones from olives. Fill the centers with pieces of the heart stalks of celery. Cut the celery off even with the ends of the olives. Serve on lettuce with a spoonful of mayonnaise. Or the olives may be stuffed with strips of blanched almonds.

Stuffed Cherries

Remove the stones from fresh or canned cherries. Fill the cavities with pieces of nuts. Serve on lettuce with mayonnaise which has been mixed with a little whipped cream.

Currant Salad

Wash and dry stemmed currants. Mix with them mayonnaise to which a little whipped cream and sugar have been added. Garnish with currants on the stem.

Stuffed Tomato Salad

Scald and peel firm tomatoes. Cut a hole in the stem and remove the pulp. Fill with diced cucumber mixed with mayonnaise or French dressing. Garnish with nasturtium leaves and flowers. Or fill the tomato shells with cottage-cheese to which chopped pecans and chopped celery have been added, and put a spoonful of mayonnaise on top of each. Or fill the tomato shells with diced pineapple mixed with whipped cream dressing.

Ribbon Salad

Over equal parts of red cabbage and white cabbage, shredded, use whipped cream dressing.

Asparagus Salad

Place stalks of cooked asparagus in rings of tomato or cooked beet which has been soaked in lemon-juice. Place on lettuce leaves. Drop spoonfuls of mayonnaise on the tips of the asparagus.

Asparagus Jelly Salad

(Ten individual molds)

- 1½ cans asparagus
- 2 small onions, sliced
- 1 bay leaf
- ¼ ounce vegetable gelatin
- 2 hard-boiled egg yolks, chopped
- ¼ cup chopped olives
- ½ teaspoon salt

Cut off three fourths of an inch of the tip of each stalk of asparagus. Arrange these tips around the sides of ten jelly-molds, five tips in each mold. Cook the rest of the asparagus ten minutes, with the onions and bay leaf. Add the vegetable gelatin, previously prepared for cooking, in the usual way, by soaking in hot water and draining several times. Cook till gelatin is dissolved. Rub through a colander. Add the egg yolks, olives, and salt. Carefully put this mixture into the molds so as not to disturb the asparagus tips. When cold, unmold and serve on lettuce with mayonnaise.



Egg mayonnaise. No-soda crackers. In this salad the mayonnaise dressing is placed over the egg yolk.

Tomato Jelly Salad

- $\frac{3}{4}$ quart tomatoes
- 2 bay leaves
- 1 onion
- $\frac{1}{2}$ teaspoon salt
- $\frac{1}{2}$ teaspoon celery salt
- $\frac{1}{4}$ ounce vegetable gelatin
- $\frac{1}{2}$ cup lemon-juice

Cook the first five ingredients together till reduced one half. Add the vegetable gelatin, which has been prepared in the usual way, and cook until the gelatin is dissolved. Rub through a colander, and add the lemon-juice. Pour into molds wet in cold water. When cold, unmold and serve on lettuce with mayonnaise dressing.

If desired add to the jelly, before pouring it into the molds, one or two string-beans cut into small pieces, two or three olives chopped, and one or two hard-cooked egg yolks chopped.

Cottage-Cheese and Apple Salad

Peel an apple, remove the core, and slice the apple crosswise. Dip the slices in lemon-juice so that they will not discolor. Place them on lettuce leaves; on each slice place a ball of cottage-cheese seasoned with cream and salt, and on top of the cheese put a spoonful of mayonnaise.

Cottage-Cheese and Pineapple Salad

Use a slice of pineapple in place of the slice of apple.

Banana Salad

Cut a banana into quarters lengthwise. Cut each piece in half. Dip the pieces into mayonnaise to which whipped cream has been added, then roll the pieces in chopped nuts. Lay the pieces on crisp heart leaves of lettuce.

Autumn Fruit Salad

Select rosy-cheeked apples. Polish them.

Cut a slice from one end. Remove the core, then scoop out the inside of the apple, putting the pieces into whipped cream dressing. Add to the apple mixture a little pineapple cut into small dice. Make funnels out of tender lettuce leaves. Press them down into the apples, then fill them with the apple mixture. Set the apples on autumn leaves for garnish.

Grape and Pineapple Salad

With a mixture of diced pineapple and peeled and stoned white grapes use whipped cream dressing.

Orange, Apple, and Cherry Salad

Use whipped cream dressing with a mixture of these fruits.

Grapefruit Salad

Cut the grapefruit into halves crosswise. Cut around the pulp next to the skin. Cut on both sides of the membranes which separate the sections. Cut the membrane away from the skin at the stem and blossom ends. The membrane may then be removed in one piece, leaving the pulp free from membrane in the grapefruit skin. Pour a little French dressing over the pulp, and serve. Or to the grapefruit may be added peeled and stoned white grapes, cut-up orange and pineapple. Or instead of using the French dressing the fruit may be sprinkled with sugar, cherry-juice poured over it, and a cherry placed on top.

Strawberry and Pineapple Salad

Place in a bowl alternate layers of diced pineapple, and strawberries cut into halves, sprinkling each layer with grated maple-sugar. Sprinkle a little lemon-juice over all.

Date and Apple Salad

With equal parts of diced apple and stoned dates cut into small pieces, use the nut salad dressing. Other combinations which may be used with this dressing are: Apple and banana, date and banana, and fig and orange. Nuts may be sprinkled over these salads.

A HEALTH CURE WHICH PAID FOR ITSELF

(Concluded from page 259)

done. However, as long as we felt equal to it there was infinitely more pleasure in saving for the long summer vacation than in paying help bills. Part of the time we even did a large share of our laundry work. If you are wondering whence the strength for so much exertion in addition to teaching, I need only suggest that you go to live in one of the high, dry, stimulating mountain climes of the West, and there find what energy and ambition are given one.

No month did our bills run over seventeen dollars. Once they fell below fifteen. With the exception of one stormy night in January we slept on the sleeping-

porch every night from September to June. There we stored up health by night commensurate with the dollars we stored by day.

When June came, we had ample means in the bank for the vacation in the Rockies we had planned, and a zest for it without which a holiday loses half its savor. Then for ten long weeks we traveled over scenic mountain railways, climbed mountain trails on foot and on horseback, drove over mountain roads, picnicked by mountain lakes, and fished in mountain streams. In the end we knew splendid health and the great joy of being thoroughly "rested up."

EDITORIAL

INTESTINAL POISONS AND BODY DEFENSES



RADITION has it that Rockefeller offered to give a million dollars to the man who should give him a new stomach. He still has the million dollars, for the new stomach did not materialize.

The first article of this series considered various popular food reforms, and also the work of Bouchard on intestinal autointoxication; the second gave a brief outline of Professor Metchnikoff's sour milk therapy.

Next we consider the work of a Swiss physician, Prof. Adolf Combe, whose work appeared in English in 1908.

Combe teaches that the intestinal poisons which threaten the organism or perhaps overcome it, are caused by "the splitting of the albumin molecule," which in plain language means the decomposition or breaking up of the albumin into simpler substances, some of which are deleterious to the organism. Putrefaction is merely a breaking up of albumin or protein into simpler compounds through the agency of bacteria. This process takes place probably, to some extent, with nearly all persons, though many may not seem to suffer from it, for the reason that the organism has a way of defending itself against poisons.

These defenses Combe divides into three classes,—the factors limiting or tending to prevent putrefaction; the defenses against the products of the putrefaction in the intestinal wall, the liver, and their glands; and the provision for the elimination of the poisons.

One might be a veritable factory of intestinal poisons without showing many symptoms, so long as the means for preventing the entrance of the poisons into the organism, for destroying poisons, or for eliminating them after they have entered, are reasonably intact, but habits that overwork any or all of these defenses eventually cause one or more of them to fail; and it is when they begin seriously to fail that one experiences the effects of an intestinal autointoxication which may have been progressing for a long time undisturbed, or in some cases the defenses may have failed at periodical intervals, causing recurrent bilious spells, attacks of sick-headache, and the like.

The causes which encourage intestinal intoxication, according to Combe, are, too abundant and too frequent meals, excessive nitrogenous food (meats, etc.), the presence in the intestine of parasites and of the bacteria which act upon albumin or protein.

Among the causes of intestinal intoxication he mentions first those pathological changes which increase the production of intestinal poisons, such as dyspepsia (or disturbance of the digestive secretions) and stasis (or undue retention of the food in the intestinal canal or in any of its parts, including what is usually known as dilatation of the stomach). Among the factors which lessen the destruction of these poisons, are the weakening of the defenses in the intestinal wall by

means of parasites or as a result of inflammation, and the lessening of the activity of the liver, kidneys, etc., which naturally have to do with destroying or eliminating the poisons.

Referring to the fact that surgeons have learned the importance of having the alimentary canal clean during an operation, Combe says: "In intestinal intoxication this is even more essential, so as to prevent the further entrance of large quantities of putrefactive microbes." He continues, agreeing with Metchnikoff in some particulars, as will be seen:—

"Raw articles of diet should, therefore, be avoided, for they serve as vehicles for the intestinal parasites, besides being laden with innumerable bacteria derived from all sources. In spite of washing, etc., raw vegetables, such as salads, radishes, watercresses, such fruits as berries, grapes, cherries, plums, that are eaten with the skin, are all soiled by dust, earth, manure, and fecal matters which contain very frequently noxious microbes, particularly saprophytes." "The water, unless from an absolutely pure source, should be boiled."

* * *

Combe advises the use of curdled milk, either that curdled spontaneously or by means of rennet. Milk, he says, is a complete food, and on account of the milk-sugar is diuretic. Moreover,—

"owing to its content of lactic and succinic acids, it [sour milk] has the advantage over fresh milk of being an intestinal excitant. Its daily use is generally accompanied by great regularity of the stools, thus overcoming one of the great disadvantages of the milk diet."

But he evidently realized that there is a difference in soured milks, for he makes this distinction:—

"since the use of yoghourt has become more practicable, we have employed it as much as possible and in preference to curdled milk, for, as we shall see, the Bulgarian preparation acts not only like curdled milk, but also by introducing into the digestive canal bacteria antagonistic to the proteolytic bacilli of putrefaction."

He also recommends buttermilk and cheese; but in his estimation, for the prevention of intestinal decomposition the farinaceous foods are even better than the dairy foods, and therefore he lays great emphasis on the statement, "The lactofarinaceous regimen is the antiputrefactive regimen." Following are some of his dietetic rules abbreviated:—

1. "Do not eat while drinking, nor drink while eating. Nearly all dyspeptics feel better for it, and, provided nothing at all is drunk with the solid food, one very soon gets accustomed to it and without difficulty."

This rule about drinking while eating, Combe considers of considerable importance, for it has been shown by one authority that the avoidance of liquids and solids at the same time at meals tends greatly to diminish nitrogenous putrefaction.

2. "Divide the daily nourishment into several small meals, and always alternate a dry with a liquid meal."

3. "Avoid all nitrogenous foods favorable to the growth of anerobic putrefactive bacteria; such as, bouillons, meat soups, extracts, white of eggs, milk (unless mixed with farinaceous foods), and avoid fatty foods."

Avoid meats that are the least spoiled, such as game and fish. In grave forms of digestive trouble *meats are absolutely prohibited.*"

Like Metchnikoff, Combe uses the Bulgarian milk cultures or cultures of Bulgarian bacillus in sugar solution where milk is not tolerated.

Regarding the use of milk cultures he says:—

"At all events, and we speak from experience, the introduction of pure culture of lactic bacilli in the digestive canal is an excellent means of rendering it antiseptic, and in all the grave and acute forms of auto-intoxication it is an excellent adjuvant of the lactofarinaceous regimen."

Combe also favors the use of yeasts, which, as will be remembered, Metchnikoff condemned.

J. H. Neale.

COMFORT vs LOOKS

IS YOUR BABY HAPPY IN HOT WEATHER?
If not—you're to blame.



THIS LITTLE TOT IS
COMFORTABLE AND HAPPY
WHEN THE SUMMER DAYS ARE HOT
HE IS DRESSED RIGHT
TO STAND THE HEAT.



THIS UNHAPPY LITTLE CODGER
IS ALL FUSSED UP AND AS A
RESULT HE IS HOT
AND UNCOMFORTABLE
HE IS DRESSED WRONG
FOR HOT DAYS.

DON'T DRESS YOUR BABY TO
MAKE A GOOD SHOW OF
HIM—DRESS HIM TO
KEEP HIM COMFORTABLE
AND HAPPY.

Chicago Health Department.

A HINT TO THE WISE IS SUFFICIENT.



President Wilson and Public Health **THOUGH** the writer was one of the fifty thousand to witness the impressive inauguration of President Wilson, he was not quite near enough to hear the momentous words of the inaugural address, which, according to one witness of the ceremonies, will "take high rank in the classic literature of American history." However, we have the address in print, and therefore in permanent form, and that is more important.

One statement in that address shows that the new President is not unmindful of the mighty wave of altruism, brotherhood, and social service which is sweeping the land, and that this brother's-keeper conscience will bulk large in his program, as shown by this quotation:—

"There can be no equality of opportunity, the first essential of justice in the body politic, if men and women and children be not shielded in their lives, their very vitality, from the consequences of great industrial and social processes which they can not alter, control, or singly cope with. Society must see to it that it does not itself crush or weaken or damage its own constitutional parts. The first duty of law is to keep sound the society it serves. Sanitary laws, pure food laws, and laws determining conditions of labor which individuals are powerless to determine for themselves are intimate parts of the very business of justice and legal efficiency."

We may be sure that with such a conception of the function of government, it will not be Mr. Wilson's method to allow the clamors of special privilege to drown the cries of the widow, the orphan, and the downtrodden.

That he will be enabled to live up to this high ideal we sincerely hope, though if we may judge from the past, it will be well to be prepared for some disappointment; for although Mr. Wilson may sug-

gest and direct, yet he has Congress to deal with, a Congress not entirely purged of the old leaven of special privilege; and doubtless every step gained for the people will be gained in the face of most determined opposition.

The District Excise Bill

AFTER an experience of years with an excise law which had outlived its usefulness, the people of the District of Columbia, thoroughly tired of the present attitude of the city government toward the saloon, has been working strenuously, under the lead of the Anti-Saloon League and the W. C. T. U. and other temperance organizations, for the passage of better excise legislation. At almost the last moment of the last Congress the people were rewarded with the enactment of the Jones-Works bill, which was passed months ago by the Senate after determined opposition, then was buried in the House District Committee, and no amount of influence could resurrect it. But it was later attached to an amendment of one of the appropriation bills, and in this way was brought before the House, and with slight amendment was passed by a large majority, and was signed by President Taft.

The new measure reduces the number of saloons permitted in the District to three hundred, and prohibits saloons in residence districts, and in the neighborhood of churches, schools, and barracks. Moreover, the license fee is increased, and the regulation of the saloons is more strict. That it is a measure of some importance may be gathered from the bitterness with which the bill was opposed at every step by the saloon interests.

Commemoration Meeting SUNDAY, March 16, the Anti-Saloon League and the W. C. T. U. held, in the First Congregational church of Washington, a meeting commemorating the passage of the excise bill, to which all temperance people were invited.

Senator Works of California was one of the speakers at this meeting. Stating that the bill had been fathered by Senator Jones of Oregon and himself, he asked if it did not seem odd that two men from the "wild and woolly West" should presume to come to the capital to elevate the standard of living. His justification was that "this is our capital as well as yours," and that when he came here he was pained to find a city, of which every American is proud, supporting 518 saloons, and as many as ten on a single square.

Regarding the excise bill, he said he had been surprised to find a most persistent opposition in unexpected quarters; for instance, the business men, the labor-unions, and even a priest of a certain denomination, although later a letter was sent to him from a man higher up in the same denomination, repudiating the course of the priest.

Senator Works had attended a banquet at which Mr. Taft was present, and although a number of speakers were enthusiastic in their recommendations for the upbuilding of the city commercially, not one had a word to say about the city's moral uplift. One of the business men who had attended the banquet, later on told the senator that personally the business men of the city would be glad for a moral clean-up, but they must not come out openly, or they would get the enmity of the liquor men, which would hurt their business. This man said that he himself would have been glad to give one hundred dollars toward the expenses of a propaganda against the saloons if he could have been assured that his name would not be mentioned.

Now if that is the caliber of our business men, and if our labor-unions, because a few union members drive beer

wagons or wash saloon floors, are willing to put themselves on record as opposed to legislation for the moral uplift of the city, can we blame Congress that it does not act hastily in the matter? Senator Works believes that the men on Capitol hill are at least as good as their constituents in this matter, for business men and labor-unions are much the same everywhere.

The Beginning of the End

MR. DINWIDDIE, the next speaker, who is one of the most active workers for temperance legislation in the District, gave it as his opinion that a very large majority on Capitol hill voted in favor of the excise bill and of the interstate liquor shipment bill because they believed in such legislation. He said, "In thirteen years the United States Congress has never voted down a temperance measure fairly put to it." That certainly is a good record, and Mr. Dinwiddie is an old worker on Capitol hill, and is well able to testify. When Mr. Dinwiddie mentioned the passage of the Webb-Kenyon bill as "the beginning of the end," he was heartily cheered. The determination of the United States government to take its hands off when the States have issued prohibitory laws, is certainly the greatest step in advance that has been made in liquor legislation.

Legislation Not Enough

BUT although Mr. Dinwiddie is working constantly for liquor legislation, he himself realizes that legislation alone will never cure the liquor evil. When he was at The Hague in 1911, he attributed the near-defeat of prohibition in Maine to the fact that the people in that State had come to depend on the law, and had ceased active work with the young people in the old-fashioned method of temperance education. He now urges that the people of the District of Columbia get busy in the Young People's and Endeavor Societies, teaching total abstinence principles. We are gratified to see a strong

worker for temperance laws take such a stand for education in temperance principles; for legislation without the constant propaganda of education of the young is bound to fail. After all, a law can not take the place of the principle of self-control instilled into the young. Those who are strong because the law has taken away all temptation, are but miserably weak; and if they do not fall by liquor, they will fall by something else.

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White Slave Decision

ANOTHER straw showing the tendency of our courts to construe the Constitution in harmony with moral sense rather than with legal technicalities was the recent decision of the United States Supreme Court (February 24), which will have an important bearing on the solution of the social questions with which the government is struggling, not only because of its direct bearing on the white slave traffic, but also because it shows the trend of the court on such questions, and indicates what we may expect in case the Webb-Kenyon Interstate Liquor-Ship-ment Bill comes before it for decision. "Constitutional lawyers" have been very forward to pronounce the bill unconstitutional, and Mr. Taft, with the advice of the Attorney-General, vetoed the bill because he feared it was unconstitutional. And all the saloon interests were sure that the bill was unconstitutional.

In view of this attitude, the decision upholding the constitutionality of the bill prohibiting the interstate traffic in white slaves is significant, as will be seen by the following quotation:—

"Surely, if the facility of interstate transportation can be taken away from the *demoralization* of lotteries, the *debasing* of obscene literature, the *contagion* of diseased cattle or persons, the *impurity* of food and drugs, the like facility can be taken away from the systematic debauchery of women and girls."

The italics are ours, and are inserted to call attention to the fact that the decision is based on moral and not on legal grounds. Can we doubt what the decision will be if the Webb-Kenyon bill comes before this body for decision?

Alcoholism and Heredity

RECENTLY we commented on an article in one of the popular magazines which purported to show that Carl Pearson had demonstrated by biometric methods that alcoholism in parents has no demonstrable effect on children.

An article in the American Year Book, 1912 (Appleton's), furnished by Lambert and Brooks, contains some interesting information in relation to this topic:—

"The exact scientific relation which alcoholism bears, however, and the manner in which the taint is transmitted, as well as the probable nature of the inherited defect, have been largely a matter of surmise or of imperfect demonstration. There has been such a conflict of opinion on this subject, and personal impressions have so tintured these reports, that absolute, impartial, scientific demonstration was imperatively necessary as a basis for future study of this very important subject. This has now been furnished by Stockard, working in the anatomical laboratory of Cornell University.

"This investigator, working with primarily healthy and fecund animals, has been able, by inducing artificial alcoholism either on the male or female side or on both, to produce at will defective offspring. The defects he shows are chiefly of the central nervous system, a finding quite in accord with the previous consensus of opinion of most students of this subject, and also indicated, if not actually proved, by previous experimental studies. Stockard, however, has not only demonstrated absolutely this point, but has brought out the highly important and new fact that temporary and acute alcoholism existing at the moment of fecundation either in the male or in the female produces definite and almost certain defects in the offspring. Stockard's work is of elemental importance; it both confirms and demonstrates important facts which have been previously but opinions."

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"Fragrant" Tobacco

SAYS the *Medical Review*, "The best reason in the world why a doctor should not smoke is his wife." We are not prepared to dispute the statement. The odor of a man addicted to the use of tobacco is unmentionable, and one whose sense of smell has not been partially destroyed by the habit can detect the presence of a smoker as soon as he enters a room where one of this genus is present; and if a man's regard for his wife were any higher than the sensual attachment to the

weed, he would not subject the object of his affections to such an annoyance. If the love of a woman is so great that she is often willing to endure anything, even the reeking odor of a tobacco-steeped body, because of love, such love is worthy of a better reward.

But if the above is the best reason why a doctor should not smoke, there is another excellent reason; namely, his patients; for why should a weak and sensitive patient be forced to endure even for a few moments the sickening odor of spent tobacco? I once worked in a dissecting-room until I could bring my nose quite close to the cadaver on which I was working without perceiving anything unpleasant in the odor. In the same way the tobacco user's nose is so educated that he fondly imagines that he is not an offense to all clean people.

Animals as Food Factories

THE perennial problem of economy in the production of human foods is still far from solution, but there is one principle that has been recognized and must be more and more recognized as populations grow more dense; namely, that a man living on foods of vegetable origin requires less land to provide his nourishment than one living on food of animal origin. This was well stated in an editorial in the *Journal A. M. A.* of March 22:—

"The problem of cost of production of our nutrients is one that appears to be growing in importance from decade to decade. In the extensive use of animal foods, so common in most civilized nations to-day, it is rarely borne in mind that the production of this type of nutrient involves a conversion of plant-food into animal foodstuffs—a transformation inevitably necessitating a sacrifice of considerable energy. The animal which devours the plant products requires no small proportion of the stored energy for its own maintenance, that is, its normal life processes; accordingly the residue available for the production of meat and fat or the secretion of milk, which may become available to man as dietary articles, must represent a correspondingly smaller portion of the actual nutrients originally stored in the plant ingested."

The article goes on to say that the

animal enables us to use the coarse foods composed largely of cellulose, by turning them into animal foods. But then why grow such coarse products? Our farming could be changed so as to reduce the raising of animals to the minimum, and such foods could be raised—on less acreage—as would be adapted to human consumption.

Meat and Appendicitis

THE *St. Louis Medical Review* has a department entitled "Little Things That Count." In this department in the January issue was the following significant advice to physicians, well worth considering also by the laity:—

"The colon bacillus is the commonest primary cause of appendicitis. A diet of the near-vegetarian order discourages this organism in all its protean activities."

From some of the investigations made by Herter on carnivorous and herbivorous animals, and from some other investigations, regarding the effect of a meat diet on the nature of the intestinal bacteria, it is conceivable that under a dietary consisting largely of flesh, the colon bacilli may become more virulent, or possibly a foreign race of more virulent colon germs may become implanted in the intestinal tract, replacing the normal inhabitants. Inasmuch as the colon germs are always present in the intestines, even in the best of health and on any and all types of diet, the pathogenic quality of the germs in causing appendicitis and other disorders, must be attributed to some change in the character of these germs. The fact is, in practically all cases of appendicitis the colon germ, a constant inhabitant of all intestines, seems to have been the invading organism, and this is difficult to understand except on the basis of change in the virulence of the germ brought about by the nature of the diet or otherwise.

Whatever the explanation, it seems evident that the person who restricts his consumption of meat is thereby lessening his liability to appendicitis.

The Transmission of Measles It is repeated frequently by those who for religious or other reasons are opposed to animal experiment, that such experiment is never an advantage in the treatment of disease. Some of them would still object if animal experiment were incontestably proved to them to be beneficial to human life, their solicitude for the animals being so great that they would rather that human beings should suffer than that animal experiment should be permitted.

To those who know the history of the growth of medical science, this claim that animal experiment has no effect on the ability to treat disease, is one of extreme absurdity, and often it seems to be made without the excuse of a sincere purpose.

As an example of the value of animal experiment, we cite the fact that during the past year two observers, Anderson and Goldberger of the United States Public Health Service, made valuable investigations as to the nature of measles, on the rhesus monkey. Of course, no one would think of performing these experiments on children, and were it not for the opportunity of experimenting on some lower animal, we should continue indefinitely in our present profound ignorance regarding some of these diseases.

The experimenters found that the disease can be transmitted to the monkey for only a few hours before the breaking out of the rash and for twenty-four hours afterward, and they found the scales absolutely incapable of conveying the infection. The disease in the monkeys, according to some other observers, was strangely like that in humans, even including the rash and Koplik's spots.

Of course all that can be *positively* stated, is that the disease is transmissible *to the monkey* only in the early stage, and that the desquamating scales are non-infectious to the monkey, though the inference is strong that the disease is transmitted to human beings during the same period that it is transmitted to monkeys. However, having had this definite cue,

observations of epidemics will doubtless serve to clear up the fact regarding the transmission in humans. The organism which causes measles was not discovered, but it was shown to be filtrable through the Bergfeldt filter, so that it belongs to the ultramicroscopic organisms much smaller than the ordinary bacteria.

We can be reasonably certain from the above experiments that measles is transmissible only during the first two weeks, and that during the period of desquamation the patients are incapable of transmitting the disease.

Mental Hygiene Conference At the recent Mental Hygiene Conference in New York, Dr. Lewellys F. Barker, professor of medicine of Johns Hopkins and president of the National Committee for Mental Hygiene, declared that mental unsoundness includes not only insanity, imbecility, and idiocy, but also epilepsy, hysteria, hypochondria, psychasthenia, and even neurasthenic conditions. It is also recognized that criminology, inebriety, vagrancy, prostitution, and pauperism must be treated from this standpoint.

From this it will be observed that the committee on mental hygiene has an immense problem on its hands. It is largely a problem of prevention, of recognizing these conditions in their incipency, and of so changing the environment as to ward off the threatened conditions. It includes the prevention, so far as this is possible, of such marriages as would probably result in a progeny of bad mental heritage, although it is recognized that the attempt to work along this line is one that will require caution.

At present the work on mental hygiene is necessarily a work of path breaking, that is, of study and education.

Tendency Toward Fewer Prescriptions DR. HENRY BEATES, president of the Pennsylvania State Medical Examining Board, addressing the Philadelphia branch of the American Pharmaceutical Association,

said that one reason why physicians now give so few prescriptions for Galenical preparations is that they do not know how to write prescriptions; that they are ignorant of the exact action of drugs, and that this ignorance has caused the profession to resort largely to the use of ready-made proprietary mixtures. He further states that when a physician prescribes a drug, he rarely knows exactly how it acts, but knows only that the patient gets better or worse. The *New York Medical Journal*, March 8, 1913, commenting on this, says:—

"This is a severe arraignment of the present-day curriculum, but it is one for which we fear there is more than a modicum of justification."

Considering the prominence of the man who makes this assertion, we think it is well worth considering, and would ask, If the practise of medicine is so open to criticism by its own strong men; if the pharmacopœia is so untrustworthy that scarcely any physicians depend upon it, but use proprietary drugs furnished them by the houses whose main interest is to push the drugs, why in the name of sense drive to the wall those who use non-drug methods? The *Journal*, speaking of the medical colleges, says that "in many cases the tendency toward drugless therapy is reflected in the relegation of the study of materia medica to a less important place than it is entitled to."

If the doctors have shown a distrust of the pharmacopœia, if the schools themselves are more and more tending toward non-drug methods, can we not be assured that this is the inevitable tendency of the age? As the regular school was compelled to give up some of its earlier and cruder methods by rubbing up against homeopathy, as it has been compelled in self-defense to take over hydrotherapy and other non-drug treatments, will not the process continue to the eventual practical overthrow of the pharmacopœia and all-drug practise as the main dependence of physicians? and would not the fight of the physicians against nostrums be much

more forceful if they themselves were more completely divorced from the use of drugs, the effects of which they themselves are in ignorance?

The writer believes that eventually the regular school must choose between substituting drug therapy by non-drug therapy or surrender the field to some competitors. Note, for instance, the astounding growth of osteopathy within the past twenty years, despite all attempt to regulate it by legislation and otherwise.

Why We Ventilate

THE *Southern Medical Journal* calls attention to certain recent findings that may furnish a fulcrum on which to rest our ventilation propaganda, since it has been shown that in our breathing we do not materially lessen the oxygen content of the air, and that the carbon dioxide is not so harmful as it was once thought to be. To quote:—

"At the Pasteur Institute, in Paris, M. A. Trillat has investigated the conditions of air and water that render them favorable to the growth of pathogenic organisms. Two facts, important to pathology, were demonstrated: First, that though air which was contaminated by foul effluvia might not contain any more microbes than that not thus affected, yet the microbes that did exist therein became more virulent in character."

If impure air helps to make more virulent the organisms that are therein, it certainly is an advantage to have the air as pure as possible.

The other finding of the Pasteur Laboratory was that "distilled water containing only 'one five-millionth of its weight of putrid gas acted as culture medium, like bouillon.'" In other words, given the purest distilled water exposed in the slightest degree in a room containing volatile products of decay, and perhaps a few floating germs, you have an excellent culture medium for the growth of dangerous pathogenic bacteria, and such water is unfit for surgical work, unless reboiled, and it is not ideal drinking-water.

THE MEDICAL MISSIONARY AT WORK



A GLIMPSE INTO THE VILLAGE OF SHAHHAD, INDIA

M. D. Wood

UPON our arrival in Kalyan to live, we wondered where we could get good fresh milk for our use. Mrs. P. said an old woman from a near-by village brought most excellent milk right to her door every day, and she thought this woman would also supply us. I thanked Mrs. P., and said I would be on the lookout for the woman.

In a day or two, a quiet-looking, timid old heathen woman presented herself at my front door. I wish I had her picture to show you. She had on a jacket with short waist and sleeves. Her dress was of dark green, and was tied up about her hips. She had on her wrists a few glass and brass bangles, and an old chain and other native ornaments about her neck. On her head she had a large brass milk-pot, or *dota*; and in her hand she carried her small brass cup with which she measured the milk. I asked her how she sold it, and she said, "Two annas, or four cents a seer." I then asked her if she watered the milk, and she said, "No." (By the way, this is not cow's milk, but pure buffalo's milk.) So I agreed to take three seers a day. We boil the milk as soon as it comes, to kill the germs. In the morning we skim off the rich cream, and always have enough to supply our table with fresh butter.

This same milkwoman sometimes brings us eggs. One day I gave her a few bananas to eat, and that greatly pleased her. At another time I gave her a large English tomato. Soon she began

to bring us eggplants and other green vegetables, and so a very friendly feeling has grown up between the old milkwoman and us. She is only a poor old heathen, but she has a sympathetic heart, and can feel that we are interested in her and her people. One day she brought her mother to see us, and wanted us to examine her eyes. We did so, and told her that as she was so very old her eyesight could not be restored by the hand of man or by drugs. One by one our milkwoman has brought her son and daughter and other members of the family. She likes to get inside the front door and sit down in the corner and watch us at breakfast or while we have family devotions. She is always quiet and respectful. She thinks Mrs. Kelsey's little white baby Cathlene is very beautiful, and Cathlene is not afraid of her. A few days ago the woman sat down in the corner and heaved a sigh. We asked her what was the matter. "O, my!" she said, "just look at my ankles." They were badly swollen and were tied up with old rags. I examined them and found they were filled with Guinea-worms. I saw a long white piece of one hanging out of the flesh. These worms get into the flesh from the drinking of bad water. This is a very common trouble among many classes of people at Kalyan, and we have many such cases at the dispensary.

For several days our milkwoman has not brought the milk, but has sent her daughter instead. So this evening Mrs. Wood, Mrs. Kelsey, and I went to the

small village of Shahhad to see our old friend and neighbor. The village road was too rough for our horse and carriage, so we left them and walked across the fields. We saw two small Hindu boys driving home their leisure-loving buffaloes. They directed us to the village. It was just at dusk. We inquired the name of the old woman who brought the milk to our house, and they said she lived on the other side of the village. So on we went. We passed by the temple in the center of the village. A group of men and boys were gathered around it. The temple lamps were burning and smoking and gave a dismal appearance and horrid odors. These dumb idols are found in each village, with their devotees sitting about. They know no better.

At length we came to the home of our friend and patient. We asked if we might enter, and the people said "*Hoy*," meaning "yes." So in we went. It was merely a barn with a whole row of bullocks, cows, and buffaloes, all tied to a long pole. Just in front of them, stretched out on a cot, lay our milk-woman. A small smoking lamp without a chimney was brought in. The poor suffering creature turned over in bed, and in a low moan said, "*Salaam*. I am sick." Then she asked how the baby was. We looked at her poor ankles, all swollen and the worms protruding. She had a slight fever, and was too weak to sit up. We asked if she would come to our dispensary for a few days, but she

said she could not walk and they had no cart. We soon told the neighbors who had carts that they must bring her, and they agreed. As we left, they presented us with two eggs, as a thank-offering. So to-morrow we expect to make a place for her at our dispensary. There we shall treat her and, with God's blessing, cure her.

On our way out we stopped at the home of Mr. Nargogee, from whom we recently purchased land for our mission. His home was filled with people and cattle. Several women were grinding grain, and they said they were preparing for a great wedding. There they live right with the goats, sheep, buffaloes, and cows. They can neither read nor write. They have homes and enough to eat and wear. They fall at the feet of huge stones, which they believe are gods. This is heathen Hinduism, and after hundreds of years no advancement, no improvement, has been made. We can not read to such a people; they would not come to listen, and are not used to book language. We can not preach sermons to them; they would not like that. But we can minister to their sick and show them the love of Christ. We hope to instruct their children and reach a few of them. It will take a long time to bring them to a state of what we call civilization. Yet Christ died for them, and they need him.

Please pray for the villagers of Shahhad, and also pray for your representatives who try to teach these people of Christ their Saviour.



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.

Indigestion.—"I have a feeling like a lump in the pit of my stomach, and belch a good deal. After meals I take a peppermint drop, and that helps. I try to be very careful about combination of foods, and to masticate thoroughly. I do not seem to have a sour stomach."

You are evidently suffering from a bacterial invasion of your stomach and intestines. It would be impossible for me to follow your case closely enough to give you relief without being able to see you and make a personal examination. However, a few suggestions may be the means of helping you to some extent.

You say that peppermint drops seem to help you a little. You can obtain at the druggist's soda mint tablets which contain no sugar, and in fact are nothing but soda and peppermint; these may give you some relief. This, however, is only a makeshift and not a cure.

It is possible that certain articles of diet which you are using may be causing your trouble. It may be the starches; you may need to use the dextrinized foods, or you may need to use milk in the form of buttermilk, or one of the preparations made by some of the sour milk tablets. Sometimes boiled milk is borne when raw milk causes distress.

Medical Literature.—"I should like to know more about that 'Reference Handbook of Medical Science.' Can you advise me where I can secure a brief text on acne?"

The "Reference Handbook of Medical Science" is in twelve or sixteen volumes, nearly as large as a dictionary, and would fill a shelf three or four feet in length. Why it was ever called a handbook I do not know.

I am not acquainted with any book that deals entirely with acne. "Practical Guide to Health," published in this Office, gives instruction on all kinds of diseases, and on prevention of disease it contains one page on acne.

Cataract.—"What is the chief cause of cataracts that are slowly forming on both eyes,

and what can be done to arrest their growth? I shall celebrate my eightieth anniversary on the twenty-eighth of this month."

The form of cataract that you have is probably senile cataract; and so far as I know there is nothing that can be done for it, except when the cataract gets pretty ripe to have an operation, removing the one that is farthest advanced. Then by putting on a very powerful glass you will be able to get quite good vision out of the one eye on which you have had the operation. Some eye specialists operate before the cataract is fully ripe.

Numbness; Dragging.—"I have a peculiar numbness. It comes only in my fingers, and only when my body feels chilly or when my hands get cold. Ever since my little girl was born, I get tired easily, and have a dragged down feeling in my abdomen. It feels as if something was pushing all my organs down, and makes me feel tired. I live in a healthful way, eat good combinations of foods, dress right, etc. Could I get an abdominal supporter that would hold my organs in place?"

If you have in your vicinity an intelligent physician who has good common sense regarding women's diseases, he might be able to help you. I am aware that too often physicians will give a patient a prescription for something to "take" instead of trying to find what the matter is. Doubtless, as you suspect, you have a lack of support of the abdominal and pelvic organs; probably a properly fitted abdominal supporter would be a benefit to you. Whether you can get a proper fit without visiting a sanitarium, I do not know.

In connection with the prolapsed condition, there is probably more or less constipation which would be relieved partly by a proper support, and yet there might be need of the use of some laxative foods.

I am inclined to think that the numbness

you have is something that is not likely to get worse, and that it would disappear with the proper regulation of these other matters.

Burning Feet.—"I have had a burning in my feet off and on for two years. They are getting worse. They get so sore I can scarcely walk on them. The trouble is in the ball of my feet, under and behind the toes. It acts and looks like chilblains. I soak my feet in hot water five minutes, then in cold five seconds. I am sixty years old; in good health; have a good appetite; sleep well, and can work well."

Two things suggest themselves to me. One is that there may be corns on the soles of your feet which cause the trouble, and which may be relieved by soaking and scraping. The other is flatfoot, that is, the breaking down of the arch of the foot. You can tell whether this is the case by wetting the foot and placing it on a paper, and seeing whether there is a real arch or whether the foot is entirely flattened or partly flattened. See article on flatfoot in April number.

Enlarged Glands; Indigestion.—"What can I do to cleanse the system, besides living hygienically and eating raw parsley, watercress, spinach, celery, and a few raw onions? I am a young man twenty-five years of age, unmarried. I have had a slight form of nasal catarrh and have always been of a bilious nature. Milk in a quantity over a half-pint, or used for several meals, has upset my stomach since the age of ten. My skin is sallow, have three or four colds each winter, and have gas in intestines. After eating acid fruits I have sore mouth and tongue, constipation and piles, also a little kidney trouble, and enlargement of glands, one on each groin and one on each side of chin. Do you think sour milk or lactone buttermilk would help me?"

I have read your letter with considerable interest. The enlarged glands give some suggestion of Hodgkin's disease, which I trust is not the case, as this is a very serious condition.

Evidently there is a very irritated condition of your intestinal tract, and an excess of hydrochloric acid. For the constipation I would suggest the use of agar, which any druggist ought to be able to secure for you. This you might chop fine and take raw with the food. You might also use white vaseline in teaspoonful doses to good advantage. These substances

act both as a laxative and the latter also as a soother for the irritated condition of the intestine.

Use starch in the form of bread dried slowly in an oven for a number of hours, so that it is perfectly dry and crisp. Confine yourself to this form of starch, and use boiled milk to soften the bread. Do not drink any milk, but use it always in this form, and if you masticate very carefully, I do not think it will disagree with you.

Buttermilk would probably be an advantage to you, and perhaps also some form of buttermilk tablets. You ought to be able to eat some eggs and quite freely of butter.

If your teeth are not in good condition, one of the most important things is to have them attended to; and it might be a good plan to use some disinfectant dentifrice, perhaps peroxid of hydrogen, one part to four of water, before each meal. If any of your teeth have cavities or are loose, it is almost impossible to do anything with the rest of the digestive tract until this condition is remedied.

Headache.—"I am twenty-four years of age. I eat only three meals a day, have discarded all rich foods and pastry, drink lots of water, am careful what I eat, masticate well, and still I have headache once or twice a week. I am constipated."

Experiment for a week or two on the use of bran in the morning. Take one tablespoonful of clean bran in a glass about half full of water; stir it up well, and drink it before breakfast.

It is possible you are not eating quite enough fruit, and it may be that more coarse bread, like Graham or rye, would be an advantage to you.

Nutritive Diet for Babies.—"I should like to know what diet is best for a baby fifteen months old who has only two lower teeth. There must be something lacking in her system. The doctor has ordered rare beefsteak, but as we do not eat meat, I do not wish to give it to her."

Milk supplies everything that is needed in the human system. You have not told me what your child eats, and so I am unable to tell whether your dietary contains sufficient food or not. There is all the bone-making material and flesh-making material, in fact everything that the body requires, in milk.

I should think that a child of this age should be fed quite largely on milk and cereals.



Thirteenth century bas-relief. Now in Museum of Comparative Sculpture, Paris.

IN THE MAGAZINES



RECENT ARTICLES WORTH A CAREFUL READING

[N. B.—Figures refer to names of periodicals in foot-note.]

Reeducation of Attentive Control, 12, March.

Plague, Diagnosis and Prevention, 16, March.

Shade-Trees, Their Selection and Care; 2, March.

Alcohol, Toxemias From, T. D. Crothers, M. D., 16, March.

Alcohol, Accidents Following the Use of, T. D. Crothers, M. D., 10, March.

Sanitation on the Canal Zone, by W. C. Gorgas, M. D., the man who did it, 7, March 29.

The Philosophy of Mastication, a protest against a too radical Fletcherism, by Geo. M. Niles, M. D., 7, March 29.

My Quest of the Arctic, by Vilhjalmur Stefansson, 5, December to May.

An account of the discovery of the "White Eskimo."

Euthanasia, by William J. Robinson, 3, March.

Of all that the writer has seen on this subject, the article by Dr. Robinson is the most sane.

The Density of Dentistry, by James R. Mitchell, A. B., M. D., 4, March.

The doctor reads a lecture to the dentists which will be interesting, and possibly profitable, reading for dentists, doctors, and laymen.

The Vigor of Life, by Theodore Roosevelt, 13, March 22.

A chapter of the colonel's life, in which he tells how he built up his superb health, how through nature's methods the weak and sickly boy became the man of iron.

Alcoholism, Parental, Influence Upon the Human Family, by Laurence Irwell, M. A., B. C. L., Buffalo, N. Y., 12, April.

A valuable contribution to the subject, showing that the offspring may be permanently injured by the poisoning of the germ-plasm in the parent.

The Prevention and Treatment of Neurasthenia, 7, March 22.

Shows how to prevent the disease by avoiding the causes, and how to treat it by removing the causes. Stimulants are not advised; in fact, it advises practically a non-drug treatment.

Therapeutic Possibilities of Manual Adjustment, by R. Kendrick Smith, M. D., 11, March 22.

Every physician interested in non-drug therapy will appreciate reading this article.

Compelling Health; A Study of Attitude, by Robert S. Carrole, Asheville, N. C., 16, March.

Gives various mental attitudes of patients, antagonistic and cooperative, how they affect the recovery of the patient, and what the physician may do to minimize unfavorable attitudes. Food for thought, for both physician and layman.

Fly-Fighting Campaign, How to Conduct, by Edward Hatch, Jr., 1, March.

We hardly need now to be told that the fly is an enemy, and is becoming a disgrace to communities that still harbor the pest. Fly fighting is good in its place, but prevention is better. The article tells how. Every community ought to, if it has not already done so, inaugurate an antily campaign.

Arteriosclerosis, The Prevention of—and Heart-Disease in Otherwise Healthy Individuals Past Middle Life, by Louis Faugeres Bishop, A. M., M. D., 7, March 15.

This article showing the effect of diet on heart-disease, written by a man who has well earned his right to be called an authority on diseases of the heart and circulation, will repay a careful reading by every physician.

Dust Prevention by the Use of Palliatives, by Arthur H. Blanchard, Mem. Am. Soc. C. E., 1, March.

Considering how much dust adds to the discomfort of life, how it causes disease, how in general it is an enemy to the public welfare, it is the duty of all municipal governments to eliminate it as far as possible. This article gives the best that is known in regard to dust prevention by the use of palliatives.

The Increasing Mortality From Degenerative Maladies, by E. R. Rittenhouse, of the Equitable Life Insurance Co., 14, April.

The Life Insurance Company as a Dynamic in the Movement for Physical Welfare, 14, April.

These two articles show the excellent work the life insurance companies, or at least some of them, are now doing toward conservation of health.

Is Alcohol a Primary Cause of Degeneracy?

by Dr. R. Wlassak, Vienna, translated and condensed, 15, March.

Are inebriates born weaklings, or does alcohol make weaklings of drinkers, and through them, of their children and grandchildren? To the solution of this much-mooted question, Dr. Wlassak brings a number of facts which have an important bearing on the subject. This paper was read before The Hague Congress in 1911, but, so far as we know, has not heretofore been published in English in this country.

Poverty and Drunkenness, 6, March.

A thoughtful editorial on the interrelation of poverty and drink, in which poverty is shown to be not only a result of drunkenness, but also a cause. The editor, however, forgets a few facts, namely, that, as *has been proved*, liquor is constantly adding to the "weakling class," and that a capitalized business, like the liquor business, *must* make customers, and that it is their *business* to debauch the young. No, Mr. Editor, the liquor business will soon be outlawed all over this country, but we are not foolish enough to think that this alone will remedy the evil.

Tuberculosis, The Economic Administration of the Crusade Against, Dr. Lawrence F. Flick, 8, April.

Our chief reliance is to keep those who have not got the disease from getting it. This can be accomplished by scientific supervision and control of every contagious case. Ordinarily one does not contract tuberculosis on the street or by chance meeting with consumptives, but by prolonged contact in closed spaces. Only the wealthy can pay for adequate supervision. If it is to be extended to the poor who need it the most, it must be by money contributed by private charity, or taken out of the public taxes.

The Treatment of Lime Starvation, by Jno.

F. Russell, M. D., 9, March 22.

This is an account of the method of treating tuberculosis and also rickets, scurvy, and other diseases, by forcing the body to take up more lime from the food. The theory that tuberculosis is favored by lime starvation has already received favorable comment in *LIFE AND HEALTH*. Physicians who are not satisfied with their present success in handling tuberculosis should read this article. The writer believes this method, which is entirely non-secret, and the principles of which are very simple, may prove to be an important aid in the treatment of tuberculosis as well as other conditions.

1. *American City*, New York, 25 cents.
2. *American Forestry*, Washington, D. C., 20 cents.
3. *Critic and Guide*, New York, 20 cents.
4. *Dietetic and Hygienic Gazette*, New York, 10 cents.
5. *Harper's Monthly*, New York, 35 cents.
6. *Interstate Medical Journal*, St. Louis.
7. *Journal American Medical Association*, Chicago, 15 cents.
8. *Lippincott's Magazine*, Philadelphia.
9. *Medical Record*, New York, 15 cents.
10. *Medical Standard*, Chicago.
11. *New York Medical Journal*, New York, 15 cents.
12. *New York Medical Times*, New York.
13. *Outlook*, New York, magazine number, 15 cents.
14. *Popular Science Monthly*, New York.
15. *Scientific Temperance Journal*, Boston.
16. *Southern Medical Journal*, Nashville.

Bovine Tuberculosis.—The annual report of the (English) Departmental Committee on Tuberculosis has been published, and regarding it the *Lancet* says: "The committee is of the opinion that the bacillus of bovine tuberculosis is the cause of tuberculosis in man, and to a greater extent in children, and that the best way to attain complete security from the danger of bovine infection is entirely to eradicate tuberculosis from the cattle of this country. They think that while this is a possible achievement, it is necessarily a slow process and must depend upon continued and coordinated effort.

Advance Legislation.—Oregon has recently passed some progressive laws, some of which are the following: a bill providing for the sterilization of the feeble-minded, the insane, imbeciles, and habitual criminals; a bill providing for the inspection of all hospitals and sanitariums, public and private, by the State board of health; a bill requiring a certificate of freedom from disease before granting marriage license to men; a bill appropriating \$5,000 yearly for the study of plague in China; one appropriating \$10,000 for promoting the knowledge of social hygiene; and a bill prohibiting quack advertising.

Trend Away From Drugs.—As showing the modern trend of the regular profession away from drugs, we have a call for postgraduate instruction in spondylotherapy (treatment of disease by manipulation of the spine). A book on the subject has already passed through a number of editions, and last November there was held the first annual convention of the American Association for the Study of Spondylotherapy. It would look as if drugless therapy was coming right to the front, though there are some who seem to think that there will be a revival of the use of drugs.

Physical Therapeutics.—At the last session of the American Medical Association no subject received more lively attention or caused more earnest discussion than the question of absolute necessity of establishing a department of physical therapeutics in medical schools. Eminent speakers declared that this was a vital measure, owing to the growth of therapeutic nihilism in the profession, the wide-spread loss of faith by the public in medicines and surgery, and last but not least, because of the phenomenal growth of osteopathy and other methods of treatment.—*The Medical Record*, March 22.

SOME BOOKS

Nostrums and Quackery; Articles on the Nostrum Evil and Quackery. Reprinted, with additions and modifications, from the *Journal of the American Medical Association*; second edition, 700 pages, more than 300 illustrations. Cloth, \$1.50 net. American Medical Association Press, Chicago.

This book was published in the belief that not only the information it contained ought to be given to the public, but that the public desired such information. That this belief was amply justified was shown in the fact that within a year a second edition was required. Meantime the exposure of other frauds required the addition of about two hundred pages of original matter. As the publishers say, "Quackery does not die easily." Promoters of medical frauds have hides like a rhinoceros; convicted and exposed in one place, they change names and locations and begin business as happy and as conscienceless as before.

Exposures can do good only to the extent that people are educated away from the superstition that disease can be cured by something in a bottle, or by some appliance with a high-sounding name. Notwithstanding the fact that *LIFE AND HEALTH* is constantly stating in general terms that these things do no good except to the pocket of the promoter, we are receiving right along letters asking whether White's pills, or Brown's cough remedy, or Greene's consumption cure, or Black's asthma cure, is good for anything.

It is hoped that this book will have the circulation it deserves. Every physician and every person having influence with the poor and ignorant, and with other purchasers of "patent" medicines and fraud appliances who are not poor and ignorant, should, by means of this book, place themselves in position to help those who need help. If the one item of worse than useless expenditures for patent medicines and other forms of quackery could by proper education of the people be obliterated, it would effect an enormous saving to

the nation, and would prevent much unnecessary suffering.

What Does Christianity Mean? W. H. P. Faunce, D. D., president of Brown University. Net, \$1.25. Fleming H. Revell Company, New York.

In this age when faith is often giving way to inquiry and doubt, when the very fundamentals of religion seem sometimes to be crumbling, there is doubtless required a re-statement of Christian doctrine, or rather of the essentials of Christianity, that will appeal to the man for whom the old-time "authorities" have ceased to be effective, and who, amid the clash and jar of discordant, linguistic, historical, and archeological research, is saying to himself, "What is it all about anyway? and is it worth the while?" There is no doubt whatever that the sum total of scientific and historical research in causing man to break away from authority, is also leading many to adopt the slogan once used by Paul, "Let us eat and drink; for to-morrow we die." To all such who might turn away from a book based on authority, the work of Dr. Faunce ought to appeal strongly, for no matter how a man may be inclined to view the future life, there comes to him times when the query is forced upon him, "Does death really end it all?"

The book is a series of six lectures delivered in 1912, upon the Cole Foundation, the titles being, "The Essence of the Christian Faith," "The Meaning of God," "The Basis and Test of Character," "The Principle of Fellowship," "The Aim of Education," "The Goal of Our Efforts."

Why I Am Opposed to Socialism. Original papers by leading men and women. Paper, 50 cents; cloth, 75 cents. Edward Silvén, Publisher, Sacramento, Cal.

We recently gave publicity to a work by a prominent socialist. The present work gives in crisp form the reason why a large number of thinkers are opposed to socialism.





NEWS NOTES

For State-Wide Prohibition.—Active work is going on in Virginia and Idaho for sweeping prohibitory measures.

White Slave Law Constitutional.—The United States Supreme Court has decided that a bill prohibiting interstate traffic in women is constitutional.

Vivisection Bill Killed.—The New York Senate Judiciary Committee refused to report the bill providing for the investigation and regulation of the practise of vivisection in that State.

Plague in the Philippines.—The last case of plague reported occurred on Dec. 25, 1912. Since last June, the beginning of the outbreak, there have been fifty-nine cases, with fifty-three deaths, in the islands.

Prohibition May Not Prohibit.—Perhaps not, but it sometimes makes it hard for the transgressor. Ignatz Youngworth, of Devils Lake, N. Dak., received a two years' sentence to the State penitentiary for selling liquor in North Dakota. It was a second conviction.

Gorgas to Go to Ecuador.—Permission has been granted to Colonel Gorgas, who did such splendid work in the Canal Zone, to enter the service of Ecuador in order to clean up Guayaquil, known as "the pest-hole of the Pacific." We wish the colonel success in his work.

Alienists and Neurologists Meet.—There will be a meeting of American alienists and neurologists in Chicago, June 24-27, following the meeting of the American Medical Association in Minneapolis. This meeting will doubtless be of great interest to all physicians specializing in diseases of the mind and nervous system.

Friedmann's Tuberculosis Treatment.—It seems fitting that Friedmann should have come to this country, for the most eminent physicians of Berlin did not seem to take him seriously. Nearly all the circumstances connected with this discovery, the newspaper notoriety, the secrecy, the purpose to patent the article, smack of quackishness.

Temperate Army and Navy Officers Demanded.—A leading officer in the United States Army Medical Corps advocates that the government require all officers in the army and navy to abstain from the use of alcoholic liquors, his ground being that liquor drinking, even if not to the extent of so-called excess, unfits men for important duties.

Hot Air Treatment of Diphtheria.—Diphtheria has been successfully treated with hot air, which suggests that this might be a profitable outlet for the energies of many of our politicians. The results would at least be tangible.

Consistency, Thou Art a Jewel.—A fifteen-year-old boy has been sent to the Missouri State Reformatory for six years for killing a cat. At Buffalo, N. Y., a man who had murdered several children was given a similar term in prison. No wonder people say, Justice is blind!—*Juvenile Court Record.*

Army Aviators and Temperance.—General Allen, chief signal officer of the army, speaking in favor of a proposed order demanding total abstinence for army aviators, says, "Of course an aviator should be a teetotaler so that his general health and nervous system will be of the best." Aviation requires steady nerves and a clear eye, and the proposed order is very timely.

Cigarette Versus Education.—An eminent doctor, Prof. M. V. O'Shea, of the University of Wisconsin, says that the tobacco evil is the worst one with which the public schools have to contend, and that more than ninety per cent of the boys who fail in the grammar and high schools are smokers. He has written a strong series of articles on the cigarette in the *New York Journal of Education*.

World Going Mad.—Dr. Forbes Winslow, an English authority on lunacy and nervous diseases, says that there is one certified lunatic out of every 269 of our population, and if lunacy increases at the same rate that it has for the past fifty years, there will be one lunatic for every four of the population in 2159. He gives the causes in the order they should be placed,—first, drink; second, cigarettes; and lastly, heredity.

Accident Record.—The following figures, compiled by the National Highway Traffic Society, showing the number of road accidents from all kinds of traffic per hundred thousand population per year, are interesting: New York City, 46; up-State, 26; Buffalo, 58; Syracuse, 17; Rochester, 66; Albany, 36; Yonkers, 85. Cities like Yonkers, having roads and automobile traffic out of proportion to the population, naturally have a high accident rate. Of the accidents that occurred outside of New York City, the autos furnished 64%, street-cars 23%, wagons, etc., 13%. In New York City autos furnished 50%, street-cars 30%, wagons, etc., 20%.

Two Ways.—There are two ways to prevent conflagration: (1) Absolute fire-proof construction; (2) fire departments. If the former is adopted, the latter will not be needed, and billions will be saved in property, as well as thousands of lives. There are two ways to prevent the spread of smallpox: (1) Universal vaccination; (2) quarantine of smallpox cases. A word to the wise, etc.

Typhoid From Polluted Oysters.—The London Health Department, owing to the occurrence of typhoid in a man who had been in the habit of eating oysters, undertook an investigation which showed that the oysters the man had been buying were contaminated with sewage. After all, a man must have a strong stomach, a very weak imagination, and a forgetfulness of the sources of his foods, to be able to swallow raw oysters.

London Street Accidents.—Since the development of the motor traffic in London the accidents have gradually increased; for 1911, according to the report just published, the total number of accidents was 20,589, with 435 deaths. Reduced to a basis of 100,000 population per annum, and calling London 7,000,000, this would make 294 accidents, with six fatalities, per hundred thousand. This is rather a high record as compared with that of New York State.

Old Age or Accident.—Those who do not die of old age may be said to die of accident. It may be a bullet, a railway smash-up, a typhoid bacillus, or a "rheumatism" or diphtheria germ affecting the heart, or some other germ affecting the kidney. Most deaths should be recorded as accidental—and preventable. This may seem not to accord with the statement that long life is hereditary. Of course there is no hereditary immunity to being overrun with a bicycle or struck by a bullet, neither is there hereditary immunity that is absolute against germ action, and yet as regards germs there seems to be a relative hereditary immunity in many cases. In fact, we all inherit more or less immunity against the ordinary disease germs. It is a question of degree.

Sanitary Preparations for War.—Austria, among other European countries, is making a very complete sanitary or medical provision for the care of wounded in case of war. The following statement was taken from a letter from Vienna to the *Journal A. M. A.*: "Exact calculation seems to show that a minimum of about 100,000 wounded soldiers would have to be cared for at one time in case of war, which our country may be obliged to wage in the near future." *Obliged to wage*, and what for?—Mere territorial expansion. To satisfy the ambitions of the better classes, the "lower classes" must become targets for the enemy. When will civilization get beyond this method of settling disputes? It is absolutely disreputable to civilization, and especially to Christian civilization.

Predisposition in Malaria.—An Italian, Cajozzo, has evidence on which he bases the proposition that the malaria plasmodium can not enter the blood-corpuscle unless there is first an injury to the blood-cell. The chief feature in lessening the vitality of the cell, according to him, is carbon dioxide from decaying vegetation and in poorly ventilated rooms. So we have gone around the cycle and have again come to the aptitude of the term malaria—bad air. To the reader we may say in an "aside" that this theory awaits confirmation.

Killed by Tobacco.—A little girl of six and one-half years, with pinworms but otherwise in good health, was treated by her mother, who gave her an enema of a pint of water in which was dissolved an ounce and a half of smoking-tobacco. The child immediately became so faint that she was unable to stand, was taken with nausea, vomiting, and purging. These symptoms after fifteen minutes were followed by convulsions for twenty minutes, and then quiet; the child died in collapse forty-five minutes after the administration of the enema.

Good-Roads Appeal.—The National Highways Association has made an argument for good national highways, which ought to appeal to farmers. It is this: It is universal experience that one mile of good road breeds another mile. Put a State-wide good road down anywhere in this country, and in ten years there will be dozens of good roads reaching it from all parts of the State. Put down a system of national highways, built and maintained by the national government, and the various State legislatures and county officials will soon see the advantages of connecting all parts of the States with those national roads.

Insurance and National Health.—There are certain insurance companies that believe in carrying on a propaganda for health. We may say that this is selfish, because they are saving money to the company by prolonging the lives of the policy-holders. How much they may save in this way is problematical, for there are many companies that are not convinced that such a propaganda is profitable or justifiable. One must be convinced that some of the life insurance men at least have realized that the companies have an opportunity, and therefore a duty, to prolong life through a health propaganda. It is significant that the Postal Life Insurance Company of New York, which is prominent in this propaganda for health, is advising its policy-holders to urge the passage of the Owen bill for a consolidation of federal health activities. Will some of you who think that a "medical trust" is back of this bill, please explain why an insurance company is helping carry on this propaganda for a better federal health organization? Do you surmise that the insurance company is "subsidized" by the "trust," as was stated of one health magazine, because its editor, a very prominent physician interested in hygienic methods, favored the establishment of a health bureau?

Cigarette Versus Success.—O. S. Marden, whose aim in life has been to start young men on the path to success, says of cigarette smoking: "I denounce it simply because of its blighting, blasting effect upon one's success in life; because it draws off the energy, saps the vitality and force that ought to be made to tell in one's career; because it blunts the sensibilities and deadens the thinking faculties; because it clouds the ambitions, the finer instincts, and the more delicate aspirations and perceptions; because it destroys the ability to concentrate one's mind, which is the secret of achievement." Any one of these reasons is enough to condemn the practise.

Another Leper Hero.—Dr. George Turner for many years practised medicine in South Africa, and was medical officer. His sympathy for the condition of the lepers in that country caused him to spend many hours—mornings, nights, Saturdays, and Sundays—in the leper hospital, attending to the needs of the lepers, and studying the disease. Some time ago he reached his age limit and returned to England, and there continued his studies of leprosy. After he had been in his home land for some time he discovered that he himself had the disease. With ever-increasing pain and disfigurement he continued his studies and investigation in seclusion, and now it is reported that he has lost his left arm. The king has recognized his heroism by conferring on him the order of knighthood.

The Webb-Kenyon Bill.—This bill for the protection of the rights of prohibition States or districts, after passage by both houses, was vetoed by Mr. Taft, and held by him until the last possible minute, with the hope, no doubt, that in the rush of the final session the bill would fail to pass over his veto. But notwithstanding this delay, and notwithstanding the vociferous cries of the liquor dealers and their attorneys, the bill was passed over the veto, by a majority of three fourths in the Senate and nearly three fourths in the House. It is the first time in fifteen years that a president has received such a rebuke. Mr. Taft held that the bill was "not constitutional." Evidently the liquor dealers feared it *was* constitutional from the frantic efforts they made to prevent its passage. In view of the fact that just as Mr. Taft was vetoing this bill because it was "unconstitutional" the Supreme Court was upholding the constitutionality of the bill prohibiting interstate white slave traffic, we may be quite certain that Mr. Taft's fears regarding the "constitutionality" of the bill are utterly unfounded. In fact, we, with the *Washington Times*, feel that "it is difficult to regard Mr. Taft as quite serious in advancing it." To the minds of thousands, this was on the part of Mr. Taft an act of self-stultification, which he could ill afford, considering his previous record. Possibly he had one virtue, faithfulness in his promises to the brewery interests that helped to elect him.

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There is a tendency upon the part of the public to consider the dental toilet completed with the use of the tooth-brush and a dentifrice in paste or powder form.

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Centenarians and Nonagenarians.—W. G. Thompson, in the *Medical Record* of February 15, discusses the factors of longevity. Heredity he finds of greater importance than diet, hygiene, etc., for the latter present the greatest variety in different cases. Often the aged are those who have been free from harassing cares, although there are many struggling poor who live to a great age. Often the aged have no disease to which death is attributable. Their death comes from a gradually increasing weakness, a general hardening, a general failure of all the organs. The machine wears out as a whole, something like Oliver Wendell Holmes's one-horse shay. They die suddenly and peacefully, as if the clock had run down.

Unnecessary Waste of Human Life.—Mr. Rittenhouse, of the Equitable Life Insurance Company, recently charged the New York City officials with neglect because of failure to appropriate sufficient funds for disease prevention and health education. According to Mr. Rittenhouse, 30,000 lives a year are sacrificed unnecessarily in New York alone because of insufficient hospital equipment, poor milk inspection, lack of means to check the spread of tuberculosis and other infectious diseases. Of the twenty-six dollars per capita used in the running of the city, only twenty-six cents goes for health; but New York is no worse than the rest of the country. It is to be hoped that other insurance men and insurance companies, with their powerful resources, will continue their propaganda for a better health administration.

National Highways Advocated.—The National Highways Association believes that the beginning of a comprehensive good-roads system for the nation must be made by the federal government. Such a system consists of fifty thousand miles of national highways. It is not intended that this map should represent the entire good-roads system needed by the United States. It is merely a tentative suggestion of the national system of national highways, from which good roads built by States, by counties, and by cities and towns, would grow and multiply.

The Quack a Shrewd Fellow.—In describing the methods of a notorious quack, the *Journal A. M. A.* stated that "there is a tendency for people to overload the alimentary tract too often, and to unload it too seldom. The feeling of buoyancy and well-being that follows a good evacuation of the bowels is well known, and considering the ease with which it may be accomplished, it is not surprising that the quack takes advantage of it." Not at all! The quack is just shrewd enough to adopt remedies that will give immediate results,—the cathartics, the anodynes or pain-killers, the hypnotics or narcotics, and the "stimulants," which are usually narcotic in action. The temporary mitigation which the patient gets, satisfies the quack better than if it were a permanent cure; for to cure a patient would be to lose him. The pity is that the relief is not only ephemeral, but the patient is worse off than before, and perhaps in addition on the way to the formation of a drug habit.

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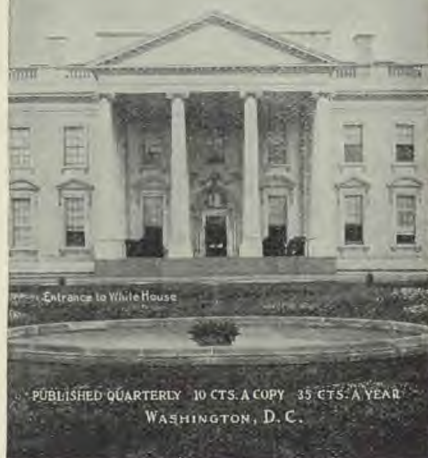
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