

Life & Health

THE NATIONAL HEALTH MAGAZINE.

NOVEMBER

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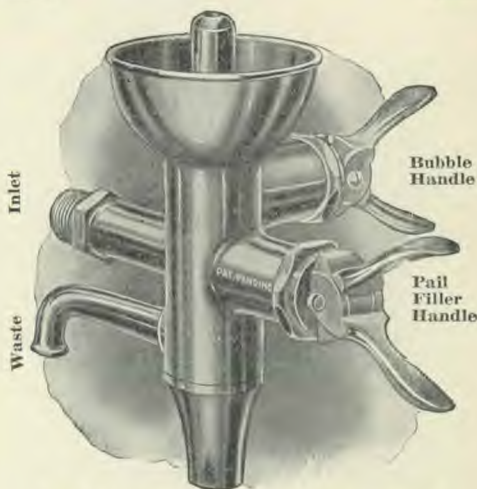
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THIS ISSUE



ONE of the scourges of civilization is the headache, though if it is accepted as a warning, it may not be an unmixed evil; but if it is merely the signal for drugging, it leads the victim to jump quickly from the frying-pan into the fire. Lucy A. Yendes, the well-known author of "Preston Papers," informs our readers how, by rational means, to avoid headaches and how to remedy them.

The third section of "The Intestine and Health," entitled "Making for Illness or Health," is a very practical article on the avoidance of some of the common diseases.

Another paper by Dr. George K. Abbott tells how "water treatment" may be used for restorative effects; that is, how it may be used to overcome those conditions in which it is common to make use of some of the so-called stimulants.

Mary A. Laselle believes that poor ventilation is a main cause of poor church attendance, and suggests a remedy.

"The Experiences of Two Mothers," given in story form, by Dr. Lauretta Kress, clearly portrays the experiences of many unfortunate mothers, and contains many helpful suggestions to mothers regarding the care of their infants. Mothers do not, as a rule, understand what foods are most suitable during motherhood, neither do they know how to feed or clothe the little ones that are entrusted to their care. Thousands of little innocents that are annually sacrificed because of sinful ignorance on the part of parents, might be saved through increased knowledge on the part of young mothers.

It has long been known that water is one of the most powerful remedial agents. W. W. Worster, A. B., M. D., shows that there is real science in water-drinking. There is a right way and a wrong way of using even so simple a substance as water. By wrong drinking one may invite disease; by right drinking one may remedy some disorders.

Mr. Cornforth's series on Fruits, postponed for two issues in order to give room for articles on canning, is completed in this issue.

The Next Issue

"Avoiding the Causes of Disease," the last of the series by the editor on "The Intestine and Health."

The second instalment of "The Experiences of Two Mothers," by Dr. Lauretta Kress.

"Food Combinations," by Dr. Robert S. Ingersoll.

An article by C. M. Dexter, "The Sweetest Place on Earth" — a story of cane-sugar.

"Out-of-Doors in Winter," by Mary Alden Carver.

An article by George E. Cornforth on "Gluten Bread."

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

Published Monthly

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TAKE MY ADVICE

Cheap things are usually expensive in the end.

❧

Advice is said to be cheap, and it is no exception to the rule.

❧

It costs nothing to the generous giver.

❧

But it is expensive usually to the one who takes it.

❧

On no subject is more advice given than on the care of the health.

❧

And usually the man least competent to give advice is most ready to offer it.

❧

"You should eat more;" "you should eat less;" "you should eat a greater variety;" "you should avoid variety;" "eat oftener;" "live on one meal a day;" etc.

❧

Advice blows both cold and hot.

❧

Whatever you are doing, be sure "advice" will say, "Do something else."

❧

Keep changing, keep trying. It will relieve the monotony of life.

❧

And you will avoid ennui and the temptation to suicide.

❧

If you have a cold, be sure to take something for it—advice, if nothing else.

Advice may cure it if you take enough and in sufficient variety.

❧

But assure yourself of one thing—you can do it by inquiry—

❧

The man with sound, vigorous health, the man who is doing something in the world, who is making himself felt, is not taking advice.

❧

He may give it occasionally.

❧

It's the other fellow, the sickly one, the ne'er-do-well, who takes advice.

❧

The man who studies principles, who knows what he is doing and why he is doing it, stands head and shoulders above the man who takes advice.

❧

Of all the foolish people, that one is peer who takes advice from the man who makes a living by giving advice.

❧

"Take my pills for your headache." "Wear my belt for your weakness." "Eat my sawdust for your dyspepsia" (with the emphasis on the **my**).

❧

The advice is all excellent provided you prefix the word, "Don't" or "Never."

THE EXPERIENCES of TWO MOTHERS

LAURETTA KRESS, M. D.



MR. and Mrs. Lake lived in a neat little cottage away from the main thoroughfare, and found much pleasure in training and watching the development of buds and flowers in their well-kept garden.

One day in early autumn, after several years, a dear little parcel, all pink and white, was laid in Mrs. Lake's arms.

A prayer went up from her lips that she might be guided in its care. Realizing how much a kind mother can do to mold the tender clay, she at once began the new life with its added duties. To be more exact, I should say that for nine months before this little stranger came, she was daily preparing herself for this all-important, new, and solemn duty. Baby's outfit was one of great interest to her. Instead of long, heavy clothes, shorter ones were made of light material. The first garments, to be worn next the skin, were made of fine, soft flannel, with long sleeves, and with little loose waists, which supported the clothing from the shoulders. In-

stead of the "binders" worn in days long ago, Mrs. Lake provided a band that buttoned over the shoulders and around the waist. She had read how much harm might be done if the little form was compressed too much, as is usually done in those stiff, hard binders. So Master Lake was first attired in these loose, warm, comfortable garments.



Mrs. Lake was cheerful, fat, and rosy—the baby, a bonny boy.

Two months went by, —two months of so much pleasure that Mrs. Lake, instead of looking care-worn and weak, was cheerful, fat, and rosy; and Baby Lake, a bonny little boy, was a perfect picture of contentment, lying in her arms.

Sitting in this attitude, admiring baby, and dreaming of what he would be like a few months hence, she was aroused by a knock at the door. Rising, she opened it, to find an old neighbor of hers.

"Good morning, Mrs. Franklin; I am so glad to see you! Do come in and be seated by the fire. You have brought baby; I am so glad. I have not seen him yet, but I heard of his arrival.

How are you both? You, I fancy, are looking rather thin and ——”

“I am thin, and as tired as I can be. This child is dragging me to death. I have not seen a well day since he was born, and he is now three months old. I told Mr. Franklin yesterday that I should never have another child.” Mrs. Franklin stopped, out of breath; and she showed evident signs of impatience and disgust at the thought of passing through three months of such experiences as hers had just been.

“I am so happy with my little boy; he is a treasure. I don't know how I have gone all these years without him. Lay off your wraps, and baby's also. Let me hold the baby while you do so.” So saying, she laid her baby down on the couch, and went to take her neighbor's child.

“My! can you lay your child down like that without his screaming? I can't; I have to hold him or walk with him nearly the whole day, or he would cry his eyes out.”

Mrs. Lake turned to her with a smile, and said, as she took the baby from her, “I have taught him to lie by himself while awake. It is a very bad practise to carry and hold a child all the time.”

“I know it is; but what can you do when he cries so?” asked Mrs. Franklin.

After removing her wraps, she settled herself in an easy, low chair, and at once began making preparations to feed her baby. Mrs. Lake inquired how often she

was in the habit of feeding her little one. To this Mrs. Franklin answered, “O, I feed him whenever he seems hungry! I gave him a drink on the train, but we have been shaken up in the cab, and I presume he is hungry again. If I don't feed him often, he cries, and stuffs both fists in his mouth as if he were ravenous. I have bought two comforters for him to suck, but they have been lost. I must get another one, and pin it to him, so that he can't lose it.”

Before she had finished this conversation, baby was sucking at the breast greedily, with grunts of evident discomfort at times. As soon as he had finished, she laid him on her lap. The child began to hic-cough, and in another moment up came the entire meal over the mother's dress and on Mrs. Lake's carpet.

Baby Lake had been lying on the couch taking gymnastics with arms and feet while his mother was watch-

ing the proceedings. Mrs. Lake sprang to assist her friend, who said: “There! that is the way my dresses go; I haven't a decent thing to wear any more, baby spoils everything I have. I never wear anything but a wrapper at home, because he spills his food so much over my dresses.”

After everything was tidied, Mrs. Lake looked at the clock, and said, “It is time to feed Harold.” So, turning to the couch, she gathered the dear little treasure in her arms. As she sat down, she



“This child is dragging me to death.”

decided to give Mrs. Franklin a little advice while she had the opportunity. Turning to her friend, who had finally quieted the little one to sleep, she said: "Mrs. Franklin, I find my baby so much better for feeding him at regular intervals. I am feeding him every three hours now. When he is a month older, I shall change to four hours. I never vary, but keep prompt time except when he oversleeps occasionally, and then he sometimes goes five hours."

"Do you mean to tell me that your baby of two months sleeps five hours without waking for food?" ejaculated Mrs. Franklin.

"O, yes! quite often, and during the night he sleeps six hours. I once had a very dear friend who had reared several beautiful children, and she told me that regularity in feeding was one of the chief things in success with babies. So I began regular feeding from the first



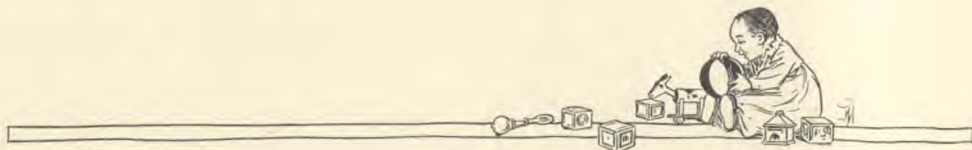
"Do you mean to tell me that your baby of two months sleeps five hours without waking for food?"

with Harold. It has proved successful, and has made our home very happy. Another thing which has helped in this is the care I have taken in my diet. I have never eaten any coarse vegetables, like carrots, parsnips, turnips, cabbage, or cauliflower. I avoid these almost entirely; for they cause so much fermentation that I fear baby would have gas in the stomach and bowels. He has never had colic; and I mean to be so careful that he never will have it.

I am careful, too, not to chill myself; for that causes babies to cry."

"Well, I am surprised to learn all this. I wish I had known it before, for I tell you frankly, Mrs. Lake, I have been so discouraged at times that I have wished I had never married; and my poor husband and I have had many quarrels since Freddie was born. He thinks I am careless, and I can see from what you have told me that I have been."

(Continued in December Number)



HEADACHES

By the Author of PRESTON PAPERS



HEADACHES are a result, not a cause; and the cause will often indicate the cure and the way to avoid the trouble; so we will take the short cut to the causes of headache.

Nervousness, constipation, lack of exercise, sleeplessness, indigestion, improper clothing, eye-strain, overeating, emotional outbursts, impure air, anxiety, overwork, too much heat, a "cold in the head," deficient circulation, and insufficient light are among the common causes. Often the cause may be a result of some antecedent cause; as, nervousness from sleeplessness, constipation, or eye-strain; constipation from overeating or from lack of exercise; eye-strain from overwork or from poor light.

Nervousness is primarily only a lack of poise or self-control, which, in turn, harks back to control of thought; for although nervousness may often be traced to physical causes, these, again, show in the main a certain elemental lack of adaptation of self to circumstances which would eliminate nervousness. I say "in the main," because there are circumstances, however rare, when the physical causes can be neither changed nor controlled; and until the mind has reached a high degree of development, physical results will follow physical causes, some of which finish with a headache.

Some of the physical causes of nervousness are constipation, sleeplessness, eye-strain, overwork, overeating, wrong eating, poor circulation, improper clothing, and insufficient light. Some of the mental causes are worry and anxiety, sorrow, intense pleasure, jealousy, etc.

When constipation is a cause of nerv-

ousness that results in headache, the constipation should be overcome first. This may be done in four ways,—by enema, medicine, exercise, or diet. The last two are preferable; the others should be used only under the advice of a physician. "Self-doctoring," with drug or operation, is too often self-murder.

Less solid food, more green vegetables, butter, oil, nuts, cream, and salads will be of use in removing constipation. Water should be drunk freely, not less than three pints daily. The water should be cold, and be taken in sips, though a cup of hot water may be taken on rising (when it should be followed by a glass of cold water, that the stomach muscles and tissues may not grow flabby) and before each meal. Apples, cooked or raw, eaten in abundance, are good preventers of constipation. Raw prunes, raisins, etc., are also good.

Exercises that will reduce or remove constipation must not be taken too soon after eating, nor should they overtax the body by being too violent or of too long duration. Some of the best which I have used for my classes are the following: Walking, running, jumping, leg-swinging, leg-raising while lying on back, back-bending forward and back, side-bending each way, knee-lifting, and stoop-sitting stride. This last is not easy but effective: stretch the feet apart, and try to sit as low as possible without stirring the feet. Rise and sit, in this way, very slowly and gently, ten times, then rest and "do it again." Rubbing the bare abdomen with your warm hand, using a rotary motion, ever so gentle in its touch, "right and left, and back again," is good also, and a harder rub on lower back and hips, helps.

Sleeplessness, as a second cause of nervousness, may be brought on through physical or mental agencies; and these should be ferreted out and put on the rubbish heap, for no one should consent to be either sleepless or nervous, since each condition is controllable. Yet people go on protesting with pathetic insistence, "I'm so high-strung and nervous," which is only a delicate way of saying, "I'm either ignorant or selfish, perhaps both," when they have no moral right to be either.

Sleeplessness may come from going to bed with cold feet, from damp or insufficient bedding, from undue excitement or tension, from extreme weariness or hunger, from lack of ventilation, from noise, from too much light, from irregular habits, or from anxiety; but from whatever cause it must be stopped at all hazards. Allowing that the naming of the physical causes must suggest the remedies, I hasten to the mental, and say, Stop worrying. Go to bed *to* sleep, and do it quietly, using as little force as possible to insure an empty thought-house *at once*; and when you reach the soft, comfortable bed, located in a dark, quiet, well-ventilated room, say your "Now I lay me" slowly, quietly, with closed eyes, and with the well-defined intention and expectation of an immediate visit from Lady Sleep. Remember, too, that she sometimes resents being called indifferently or irregularly; but when she is thoroughly under your control, you may summon her at will, day or night, and she will respond cheerfully and instantly. Catch and capture her, if you would avoid nervousness and nervous headaches.

Eye-strain comes next as a reason for nervousness—if anything so unreasonable can be said to have a reason! This is bad, but not hopeless. It may come from lack of sleep; from overwork; from working with poor light; from too fine (and often unnecessary) work, as

"drawn" work and embroidery; from too narrow vision, which the cliff-dwellers of the modern city do not often enough recognize as an argument against work or home in a shut-in (and shut-out) apartment; from reading while riding or walking; from badly fitted glasses, and from no glasses when needed—though I am inclined to think that too many glasses are used, at present, and while the wearers are too young. Water, used frequently, warm at first when practicable and followed by cold, forming a cup of the hand and holding each eye in this cup of water, is one of the best things that I know of for eye-strain, next to plenty of sleep in ideal conditions.

Give the eyes plenty of sleep, plenty of water, a long outlook whenever you can (toward the sky, at night, will add interest as well as healing), plenty of rest, wear a shade over the eyes when using artificial light, and your eye-strain will "fold up its tents like the Arabs, and silently steal away." Avoid unnecessary detail work; and when working, look up and off for a second, frequently, and as often shut the lids, softly.

Avoid reading highly calendered papers; and if working on black or white cloth, keep a box of bright varicolored silks or yarns near, at which you can glance to get a change in the reflection of the light-rays, so resting your tired eyes. Avoid red and yellow lamp-shades, also red and yellow table-cloths, on which a lighted lamp shines, as these colors are very trying to the eyes. A sheet of white paper, a towel, or a napkin laid over the offensive table-cloth, will give just the reflection needed by the eyes.

Overwork, as a cause of nervousness, may not always be avoidable; though if we will take my precious mother's advice, and "make the head save the heels," so conserving our strength, we shall be less frequently overworked. We stand when we might sit, rock when we might

be still, talk when we do not need to, and we do these things with undue force, often using eyes, arms, and legs, as well as the voice, for expression,—as Rubinstein played the piano, “all fours at once,”—and it all exhausts vitality, our own and our neighbors. “I’m dizzy, just watching Lou fly from one thing to another,” said one woman, who could stand it no longer; and “Don’t go with such a whew!” besought a quiet mother of her breezy daughter.

But one may get an offset from overwork, in a natural way, by relaxing thoroughly, then stretching slowly, gently, until every muscle is tense. Done five or ten times, it often restores mental poise and dispels nervousness, or irritation, which is only another name for nervousness.

If one can relax, and then lie on the floor or rug, back down, with every possible part of the body resting on the floor,—arms, legs, head, back,—lying perfectly still five minutes, the rest is greater than a bed can give in a much longer time.

Overeating is not so often a factor in nervousness as wrong eating; yet by clogging the passages with food that is not eliminated, nervousness follows, as the night the day.

Wrong eating may be “wrong” in food, time, or manner, any one of which may set the nerves atingle. The right way includes good things, well cooked, beautifully served, and eaten slowly, in good company.

Poor circulation results from various causes, and besides producing nervousness may occasion even more serious trouble. Among the things which may bring it about are low vitality, sleeplessness, and tight clothing. A general toning up of the system by proper food, rest, exercise, air, sleep, and pleasure, will help, in case of low vitality. If shoes, corset, collar, waist bands, or any ar-

ticle of clothing is too tight, loosen up, “on the peril of your life,” for an outraged nature will not content herself with stopping circulation, then leaving you a nervous wreck.

Improper clothing may be too scant, too abundant, too thick, too thin, too light, too heavy, or too fashionable. And among the too fashionable I especially note—shoes; and of these I will say only one thing: At all hazards, get those that fit your particular brand of foot! Unless you happen to belong to the low-instep, plank-soled class, the flat-soled and thin-heeled shoes may affect you as they did me. I nearly ruined my feet—and my temper as well as my health—trying to fit a high-arched foot into a dripping-pan shoe, when such shoes first became fashionable. Fortunately, I recovered my reason before my arches broke down; but some of my friends have not been so fortunate. More men than women whom I know are suffering in this way, or go clumping around with a heavy metal arch inside an already badly fitted shoe. Don’t do it, as you value your power of locomotion. On the other hand, look out for the heel that is either too high or too small.

High, stiff, tight collars are almost as bad; but I will not give a longer bill of particulars, but will only say, Dress comfortably.

For sick-headache there should be free elimination, even if produced by artificial means; then a rest for the entire body for a time, for the stomach a longer time, and the quiet life for at least twenty-four hours. For some days the diet should be light but nourishing, with green vegetables, subacid fruits, and crisp toast,—dry, or only scratched with butter,—crisped crackers, and a thin, hot drink of lemonade, or even plain hot water. The first meal, twelve hours after the stomach has been thoroughly emptied, should be only rice-water, well

salted,— a tablespoonful of rice, a pint of water, a level teaspoonful of salt, boiled rapidly fifteen minutes, then simmered or merely kept hot until wanted. It is soothing and healing.

For nervous headache, massage gently for a time, then apply cloths wrung out of hot water over the top of the head and over the closed eyes, while the patient lies on his back with his head well raised, in

a quiet, dark, well-ventilated room. As soon as sleep is near, retard the motion of the massage, change the hot cloths less frequently, and steal away when the breathing is deep and regular. Keep the house still until the patient wakens; then keep him still!

Avoid headaches; you can not afford them, and they are more easily paid for in preventive stages than in curative.



INTERNATIONAL HYGIENE EXPOSITION, DRESDEN, FRENCH PAVILION

The most notable feature, perhaps, of this exhibit was the apparatus used by Pasteur in some of his epoch-making experiments. There was the apparatus with which he disproved spontaneous generation, that with which he discovered the cause of the silkworm disease and of anthrax, and other diseases of animals and man. As one looked at this apparatus, quite simple and even crude as compared with what one sees in modern well-equipped laboratories, the thought uppermost in the mind was: "It was not apparatus, after all, but brains, that did Pasteur's great work."

RESTORATIVE EFFECTS OF HYDROTHERAPY

G. K. ABBOTT, M.D.



[This is the last of a series of selections from the manuscript on hydrotherapy prepared by Dr. Abbott for the instruction of nurses. The purpose of these selections has been to make more general the knowledge that hydrotherapy is a method of treatment having a really scientific foundation.—Ed.]

THE restorative effects of baths in relieving muscular fatigue, is a matter of common knowledge. If, after the fatiguing effects of severe and prolonged exertion, it is desired to relieve the fatigue sufficiently to promote normal rest and sleep, a warm bath is taken. This exerts a relaxing and quieting influence that can be experienced in no other way.

On the other hand, if a brief warm bath is followed by vigorous, general cold applications, whether by a pour, or a douche of cold water, or a cold plunge-bath, the body seems to acquire new energy. These facts of general knowledge have been made more definite by careful experiments with strength- and fatigue-testing machines.

An instrument known as the ergograph (*ergo*, work; *graph*, writing or record) has been much used in testing the ability of a group of muscles to withstand fatigue. For example, the hand and arm are made stationary in the machine, while the forefinger or middle finger is left free for flexion and extension. A weight is attached to the finger so that it is raised by each flexion movement. Raising and lowering of the weight is kept up until the muscles are unable to contract longer; in other words, until they are fatigued. With the beginning of fatigue, the height to which the weight is raised declines, and becomes less and less as fatigue increases.

In one experiment the middle finger was able before complete fatigue to execute work equal to 5.139 kilogrammeters. (A kilogrammeter is equal to 1/175 of a one-horsepower.) After a cold bath at 50° F. for fifteen seconds, the same muscles were able to do work equivalent to 9.126 kilogrammeters before complete fatigue.

Hot baths have the opposite effect: i. e., the muscles become more quickly fatigued, and are able to do less work. On an average, various cold treatments increase the working ability about thirty per cent, and hot treatments decrease muscular capacity to the same extent. When, however, a hot douche is given, the working capacity is increased, but to a less extent than with cold treatment. The mechanical stimulus of the percussion is responsible for this difference between a hot bath and a hot douche. For this reason the alternate hot and cold percussion douche is a most efficient means of relieving muscular fatigue. For this purpose the hot should be of brief duration, just sufficiently long to prepare the body for the cold. All alternate hot and cold applications have the same effect in varying degree, according to the nature of each treatment.

General cold treatments, such as the cold mitten friction, cold towel rub, wet sheet rub, cold shallow bath, pail pour, cold percussion douche, and even the salt glow, are most powerful means of stim-

ulating the muscles to renewed activity. This apparent stimulation is in fact a real tonic effect, since the effects of fatigue are relieved, and not simply a deadening of the sense of fatigue, such as follows the use of tea or coffee. Changes take place whereby a new store of energy becomes available for use. Mechanical effects alone, such as massage, also raise the working capacity of the muscles, but to a much less degree than hydiatic procedures. Cold applications should be properly graduated to suit the needs and reactive ability of each individual case.

These beneficial effects can not be produced by any of the medicinal stimulants usually considered to possess the power of increasing working capacity. The effects of strychnin are irregular and

transient. It is a whip only, and in no sense a real tonic, since it does not tend to restore to a normal condition.

On the other hand, those drugs which are used to give relief from fatigue, such as the coal-tar products, bromides, caffenin, etc., do not promote normal rest, but only deaden the nerve-centers so that there is not a true appreciation of the worn-out condition of the body. For this reason the body, when under the influence of tea or coffee (caffein), goes on working when it should rest, and hence to its own damage. A warm bath, however, gives no such false sense of energy, but is conducive to the perfect relaxation and quiet which normal rest and sleep require in order that the powers of the body may be recuperated.



INTERNATIONAL HYGIENE EXPOSITION, DRESDEN, SWISS PAVILION

In this pavilion there was a notable exhibit showing the prevalence of cretinism in the Swiss Alps, together with what is known regarding the cause of this remarkable disease. The exhibit of the manual training work in the Swiss schools was well worth careful study.

THE SCIENCE OF DRINKING

W. W. WORSTER, A. B., M. D.



IT has long been known that water is one of the most powerful remedial agents known. Many treatises have appeared touching upon its external application, therefore we shall confine this article to a discussion of its internal use. Very little thought has been given to this subject by the masses. About all that is known by them concerning the matter is that water quenches thirst, and assists in rapid eating. The benefits to be derived from proper drinking may be divided into two classes, eliminative and digestive. Each of these may be again divided into two classes,—physiologic, those which assist the natural functions of the body; and therapeutic, those which act remedially.

Elimination

In the process of elimination, water plays a very important part. It dissolves the poisons formed in the body, and acts as a vehicle for their excretion. In health at least three pints, in addition to that contained in the food, is daily required to insure good elimination. The temperature of the water does not play so important a part as the amount. The habit of regular drinking should be cultivated. One glass at a time periodically taken is better than larger quantities at longer intervals. If the excretory organs fail to perform their functions properly, or a rheumatic condition exists, an increase in the amount taken will be benefi-

cial. Once a week the amount daily consumed should be doubled in order to flush the sewers of the body. Those who find water objectionable may be able to use to advantage fruit juices, lemonade, and the like.

When sufficient water is not taken, elimination is interfered with. The kidneys are compelled to struggle under an extra burden. Their excretion is so concentrated that it acts as an irritant to the entire urinary tract. The percentage of poisons in the blood is increased, and this usually results in autointoxication. If the condition continues very long, some of the poisons will be deposited in the tissues, and there excite a diseased condition.

Digestion

Water assists in the work of digestion. Usually there is enough in the cooked foods, soups for example, to satisfy this demand. If the food is served in a dry or semidry condition, a small quantity of water may be taken at the meal to advantage. Unless some therapeutic effect is desired, this should be neither very hot nor very cold, and should not exceed one glass. The free use of water at meals dilutes the gastric juice, decreasing its digestive action, and interferes with the motility of the stomach. Hot water taken at meal-time has a tendency to relax the stomach. Cold water chills it, and retards digestion until it has been

warmed to body temperature. Continual drinking at meals, especially of cold water, has been the cause of many digestive disorders. The real effect of this evil may not manifest itself for several years, but the harvest will surely be reaped unless the sowing is stopped. Drinking at meals is not only associated with rapid eating, but is the means by which the latter is made possible.

Water is a powerful agency for combating diseased conditions of the digestive tract. The value is not so much in the water itself, as in its temperature. Hot water produces a temporary stimulation, which is soon followed by a corresponding relaxation. Cold at first depresses, but is soon succeeded by a stimulation and contraction. A practical application of these principles will now be made to the two main types of digestive disorders.

When there is a diminished secretion of gastric juice, accompanied by acid fermentation and slow motility, a glass of cold water (in some cases, ice-water) should be taken half an hour before meals. Unless the stomach is greatly dilated, a contraction soon takes place, emptying it of mucus and undigested food. This peristaltic action continues

for considerable distance in the bowel, and to many it acts as a mild laxative. Following the contraction, a reaction soon takes place in the stomach, which places it in better condition to digest the meal. The results obtained by applying this principle are not so satisfactory before the last two meals of the day as before breakfast, as there is usually more residue of food left in the stomach in the morning. But this can partly be offset by lying for a few moments on the right side soon after drinking the cold water.

When there is a tendency to excessive secretion of hydrochloric acid, from half a glass to a glass of hot water taken half an hour before meals proves very beneficial in many cases. The short stimulation from the heat comes at a time when there is no food in the stomach, but the following depression comes at the right time to diminish the flow of acid during the meal. If this is not sufficient to check its flow, half a glass of cold water taken at the meal will sometimes prove beneficial. If the foregoing plan proves unsatisfactory, a glass or two of hot water taken an hour after meals is usually sufficient to relieve the distressing conditions by diluting the secretion.



THE CAUSE OF SMALL ATTENDANCE AT CHURCH SERVICES

MARY A. LASALLE



QUESTION that was forcibly brought to the minds of many persons who attended the sessions of the National Education Association in Boston was the connection between the poor ventilation of the churches and the small attendance at church services. It is safe to say that during the meetings of the association, many of which were held in the large churches in the vicinity of Copley Square, thousands of the educators in attendance had this experience: One entered a cool, spacious, beautiful church, in which the light came dimly and softly through magnificent stained-glass windows, and sank into a comfortable seat, with pleasurable thoughts of the intellectual feast before one; but alas! in about half an hour after the opening of the meeting, he was panting for fresh air. The interior, which had been so cool and delightful at 9:30 A. M., was, an hour later, anything but a comfortable place in which "to read, mark, learn, and inwardly digest" the carefully prepared papers that the great educators of the country presented at these meetings.

After trying in vain to force one's befogged mind into a condition in which it could assimilate the thoughts that were being presented by the speakers, one turned his attention to the study of the manner in which the audience-room

received a supply of fresh air. The windows were all tightly closed; this was necessary to exclude the noise of the street. What, then, was the means taken to secure proper ventilation? After a careful examination of three or four of the finest churches in the city, one was forced to conclude that in none of them was any adequate provision made for the introduction of fresh air during church services.

What is the condition of affairs in these churches?— It is this: By the time the sermon is reached, the greater part of the congregation are in one of two conditions,— they are either in a state of nervous excitability, caused by an insufficient supply of oxygen, or in a condition of mental torpor.

During the convention, one had only to compare the mental alertness of the evening audiences that assembled in Tremont Temple, where there is an excellent system of ventilation, with the languor and mental inactivity of the morning audiences, to realize that the most eloquent words ever spoken can not impress a brain that is stupefied by bad air.

Think of the tremendous waste of effort on the part of preachers because of the impure air in their churches, and the consequent loss of helpful, uplifting thoughts to their audiences! Many a wise and saintly minister gives to his peo-

ple each Sunday the result of his deepest thought, warm and glowing, because coming from his heart. But what is the effect?—A little of the seed sown falls upon good ground and takes root; but a large part of it falls upon barren soil, the minds of the hearers being stupid and inattentive because of the unhealthful condition of the church audience-room.

Should not a church sexton be as well educated in the principles of ventilation as is the janitor of any other public building? Should not all churches receive a thorough supply of fresh air before and after each service? And lastly, should not the intelligent people of each congregation insist upon it that their church be remodeled, and an adequate ventilating plant be placed in it?

When we think of the few hours out of the week that our splendid churches are used by the people, does it not seem strange that during that short time the condition for seeing, hearing, and breathing should not be made as nearly perfect as it is possible to make them?

The writer of this article has, for the past ten years, attended Sunday morning service in a small suburban church, and afternoon service in one of the largest churches in the heart of a great city. At the morning service the attempts at ventilation are so absurd as to be laughable, even to those who suffer great discomfort as a result of them. The method is this: After the congregation begins to assemble, an usher ostentatiously opens the low windows, often subjecting the persons in the pews to a direct draft of cold air. There are windows high in the pointed roof, which, if opened, would afford a complete circulation of air, with no discomfort to any one.

In the large church at the afternoon

service it is perfectly evident that the members of the congregation are breathing the air that has already been inhaled and *exhaled* by the audience of the morning. Here are all the outward conditions, except one, that are essential to devout worship and spiritual uplift,—a magnificent interior, with beautiful and artistic windows and furnishings, spacious aisles, comfortable pews, an organ and a choir that give one an idea of what the music of heaven must be, and a giant among preachers to speak the word of God to the people. Alas that one element absolutely essential to the success of the service, should be missing! A liberal supply of good, pure air, which could be introduced into the church without great expense, would help the preacher and the people far more than the splendor of the interior and furnishings and the elaborate and beautiful ceremonial.

And is it necessary to devote much time or space to the second part of our question? Can we not trace cause and effect very clearly here?

Will men without deep religious convictions—men who lead strenuous lives during six days of the week—spend Sunday morning in an interior so badly ventilated as to produce sleepiness, nervous strain, and a feeling nearly akin to boredom or to disgust at uncomfortable and unhygienic surroundings? And are not the churches trying to reach this very class of men?

He must be blind, indeed, who does not see that the bulk of the average congregation is made up of faithful, conscientious women.

May the time soon come when all the people can say from their hearts, "I was glad when they said unto me, Let us go into the house of the Lord."

MAKING *for* ILLNESS

G. H. HEALD, M.D. *or* HEALTH

Normal Digestion

WHEN the putrefactive germs are confined to the lower intestine, the average meal with a moderate amount of proteid, if digestion is fair, is well handled; for the proteid, being turned gradually into peptone, is absorbed before the germs of the small intestine have time to decompose it, and is completely absorbed before it reaches the large intestine. If, however, a very large amount of proteid is eaten, or if it is imperfectly masticated, or if the digestion of proteid is imperfect, part of it will be carried undigested into the large intestine, and there the putrefactive germs will attack it, forming peptone; and the colon germs, which are usually present in large numbers, will break up the peptones into compounds capable of injuring the body.

One with a vigorous digestion may eat comparatively large amounts of proteid without suffering from intoxication, especially if the poison-destroying and poison-eliminating functions are active.

The Normal Condition

From examinations of middle-aged men in superb health compared with examinations of men in failing health, it would seem that the normal condition is one in which the intestinal germs having the ascendancy (that is, those which are able to maintain their existence against all intruders) are germs of the "friendly" type; and that in semi-invalids the predominant intestinal germs are of the putrefactive type. These have acclimatized themselves, and are able to maintain their position against all intru-

ders. A purgative dose of salts may clean them out temporarily; but they soon multiply again and renew operations. A person so infected is like a tree rotten at the heart. He may live for a long time, but he has within himself the seeds of death. Doubtless in these cases there is a change in the integrity of the intestinal wall. The normal intestinal wall and the normal intestinal juices do not favor the growth of the putrefactive bacteria. But when the wall becomes more or less disabled through indiscretions, and the "wild races" of germs become established, it requires the greatest care in the matter of dietetic and other hygienic observance, continued over a long period of time, to reestablish a normal condition; and as a rule, a slight misstep will undo the careful work of months.

Opening the Way for Trouble

How do the putrefactive germs gain a foothold?—By a temporary lowering of the vitality; the result, perhaps, of some indiscretion,—indulgence in an excessive amount of sweets; a late supper; overloading the stomach at a banquet; the use of alcohol, tobacco, spices, and the like, which cause irritation of the mucous membranes; in fact, any indulgence that lessens the vitality, especially any indulgence involving the integrity of the digestive function. As Herter states it, in discussing the gradual beginning of intestinal infections: "The dietary is apt to undergo an alteration in the direction of increased and frequently injudicious liberty; and the use of tea and coffee, and of tobacco and alcoholic drinks, is either increased or begun. For

a time these influences may not make themselves definitely felt, but sooner or later they lead to slight derangements of digestion, which manifest themselves clinically."¹ That is the beginning. That gives the putrefactive germs an anchorage. Next time a slighter indulgence will cause a repetition of unpleasant symptoms, and gradually, slowly, almost imperceptibly, in the course of years the victim realizes that he is practically an invalid.

Animal Foods

From what has already been said, it will be understood that the use of flesh greatly increases the tendency to putrefaction in more ways than one. The proteid of meat putrefies readily. A liberal amount of meat, especially if not thoroughly cooked, takes up oxygen, and renders the intestine a more favorable place for the growth of anaerobic germs. One who has symptoms of auto-intoxication should by all means cut meat out of his dietary; and this should be a hint to those who have not yet reached such a stage. A meatless diet goes a long way in preventing auto-intoxication.

Cheese is a food which, by its very nature, is of doubtful utility in intestinal disorders. It is ripened by the action of germs, and practically all old cheese contains a large number of putrefactive germs. For this reason, one who has a care for his intestines should let ripened cheese alone. Fresh cheese, especially cottage cheese, if properly made, contains largely the friendly germs, and is an excellent food.

Buttermilk, kumiss, ripened milk, etc., are often taken with impunity by persons who reject sweet milk, or even by those who have been unable to retain any other food. The friendly germs in these preparations, especially milk ripened with

the Bulgarian bacillus, are antagonistic to the putrefactive germs. Metchnikoff and other French writers believe that a proper sour milk dietary is a complete antidote to putrefactive conditions.

Diet

There are many fads, many systems of dietetics, many "cures," including (1) "no breakfast," (2) "no supper," (3) "fasting," (4) "always leaving the table hungry," etc. These may be called the quantitative cures. The quantitative cures restrict some supposedly harmful foods, or confine the patient to some particular classes of foods. For instance, there is restriction of condiments, irritants, stimulants, narcotics, and flesh-meats; then there is the strict vegetarian régime, which abandons all animal food; again, there is the raw food régime.

Unquestionably all of these systems achieve some good, or they would soon cease to be supported. Not unfrequently a system is merely a pretense for marketing some particular "health food," the commercial motive being apparent in that the promoters attempt to discredit similar or identical foods made by rival manufacturers. One who is making a coffee substitute for the sole purpose of educating the people away from coffee would welcome, rather than condemn, the manufacturers of other coffee substitutes. So it is to be understood that behind many of the "systems" there is a commercial element. Notwithstanding that fact, the maker of a cereal coffee who spends hundreds of thousands of dollars advertising the injurious effects of tea and coffee is doing a good work, as is also the manufacturer of any other article of food which leads to simplicity in diet.

In order to prevent intestinal infection, it is better, as has been said, to eat bacteriologically clean foods. Certain foods commonly eaten are not without danger.

¹"Infections of the Digestive Tract," page 73.

Radishes, lettuce, strawberries, etc., which grow near or in the ground and are eaten raw, often carry dangerous germs from the soil or from the fertilizer. Milk may contain germs from the barnyard or the hands of the milker; and it has the disadvantage that these germs rapidly multiply unless the milk is chilled. It may be sweet and apparently fresh and clean, and still contain most dangerous germs. Boiling milk destroys the friendly germs, but not the putrefactive germs; and after boiling, the milk is more apt to develop unfavorable conditions than before, though it may not sour so quickly. As a matter of fact, the souring of milk is the least harmful thing that can happen to it; for the souring actually retards the growth of the more harmful germs. Hence it is much safer not to depend on sterilizing milk, but to buy milk from a dairy of the better grade,—where cleanliness is enforced, and the animals are healthy,—and then keep it chilled until used.

Shall we use raw or cooked foods?

There is doubtless an advantage in the use of raw foods—possibly because they retain sufficient germicidal properties to resist germ action to some extent. It seems that one living on grains and nuts thoroughly masticated, with fruits, the peeling having been removed, is less likely to suffer from intestinal disturbances than one on a mixed diet. We would not advise the use of such raw foods as favor the entrance of putrefactive germs.

Mastication is a very important factor in preserving intestinal cleanliness. The digestive juices are germicidal; but if food is swallowed in lumps, there may be on the inside of even a small lump, living putrefactive germs which may multiply rapidly before the digestive juice reaches them. Hence, masticate thoroughly, avoid fruit skins, the hulls of green corn, etc., in fact, swallow all food in as nearly a liquid form as possible. The thorough mastication increases the flow of digestive juices, and discourages the multiplication of harmful germs.



INTERNATIONAL HYGIENE EXPOSITION, DRESDEN, MAIN ENTRANCE



APPLES AND CITRUS-FRUITS

George E. Cornforth

Apples

THE apple has been called the "queen of fruits." It has a wide range of color and flavor to delight the eye and please the palate. Sweet and sour, mild and tart, the earlier kinds coming at harvest, the later varieties keeping till spring,—with every sort coming in between in almost unlimited quantities,—apples for pies and dumplings and apple cake and apple-juice and apple jelly,—truly the apple proves each year its right to the title. The apple-tree is a native of the temperate regions of Europe and Asia, and has been in cultivation since the time of the Greeks and Romans.

Apples do not grow well in the tropics, the best varieties being produced in temperate climates. The first apple-tree brought to the United States was planted on an island in Boston Harbor, which is still known as Apple Island. Large quantities of the finest apples are now exported each year from Boston.

Apples are best eaten raw. They should be ripe and mellow, and be well masticated.

FOOD VALUE PER OUNCE IN CALORIES

| PRO. | FAT | CAR. | TOTAL |
|------|-----|------|-------|
| .5 | 1.3 | 16.5 | 18.3 |

Baked Sweet Apples

Select sound, juicy sweet apples of a uniform size. Wash them, remove the blossom ends, and put into a granite baking-pan. Pour a little water in the bottom of the pan, and bake in a moderate oven till tender, adding more hot water if the water entirely evaporates before the apples are done. Serve hot

or cold, plain, with cream, or with whipped cream.

Baked Sour Apples

Select sound, ripe apples of uniform size. Wash them, and with an apple-corer remove the core from the blossom end, not cutting through the apple. Put the apples into a granite baking-pan, fill with sugar the cavities made by removing the cores, pour a little water into the pan, and bake till the apples are tender. When done, the juice should be nearly evaporated, thick, and rich. Serve hot or cold, plain, or with cream or whipped cream.

Citron Apples

Prepare as for plain baked apples, peeling the apples unless the skin is very tender. Put pieces of chopped citron in the cavities made by removing the cores, then fill the cavities with sugar. Bake slowly till the apples are tender, but not broken. Serve hot or cold, with cream or whipped cream.

Baked Apples Stuffed With Dates

Prepare as for citron apples, filling the cavities with seeded dates instead of citron. The dates may first be stuffed with walnuts. Raisins, raisins and dates, or raisins and nuts may be used.

Lemon Apples

Prepare as in the preceding recipe, filling the cavities with sugar in which a little grated lemon rind has been mixed, and pouring a few drops of lemon-juice over each apple.

Coconut Apples

Select firm apples which will bake without breaking. Peel and core them, fill the cavities with sugar, put them into the baking-pan, add sufficient water, and bake till tender. When done, sprinkle shredded coconut over the apples, and return to the oven till the coconut is lightly browned.

Walnut or Almond Apples

Prepare as for coconut apples, using chopped walnuts or chopped blanched almonds instead of coconut.



APPLES, ORANGES, AND BANANAS

Grape Apples

Prepare apples as for coconut apples. Arrange closely in the baking-pan. Fill the cavities with sugar, and pour grape-juice over the apples to one third their height. Bake till the apples are tender.

Cranberry apples may be made by using sweetened cranberry-juice instead of grape-juice.

Apple Sauce

Select tart apples. Wash them. If they are to be peeled by hand, the work can be more quickly and handily done if the apples are quartered first, then cored and peeled. If the apples are large, divide the quarters. Put them into a graniteware or aluminum kettle, with sufficient boiling water to cook and have the sauce of the right consistency when done; this will depend on the mellowness and juiciness of the apples. Put the cover on the kettle and cook gently without stirring till just tender; then add the sugar. If preferred smooth, the sauce may be rubbed through a colander before serving.

Crab-Apple Sauce

Wash the apples, and either cut them into halves or stew them whole till tender; then add sugar and serve; or rub them through a colander to remove skins and seeds before adding the sugar.

Baked Apple Sauce

Quarter, core, and pare tart apples. Put them into a bean-pot, and for each quart of apples add one-half cup water and one-half

cup sugar, more or less according to the juiciness and acidity of the apples; cover, and bake slowly several hours till of a dark-red color.

Dried Apples

In cooking dried fruit the thing to be done is to restore the fruit as nearly as possible to its original state by restoring the water which was lost in the drying process. This is best done by long soaking before cooking. Good evaporated apples make a very palatable sauce. Carefully look over and wash the apples. Soak one pint of the dried fruit in two and one-half pints of cold water overnight. Then bring to a boil slowly, and let simmer gently till thoroughly tender. Add sugar to taste.

Pears

FOOD VALUE PER OUNCE IN CALORIES

| PRO. | FAT | CAR. | TOTAL |
|------|-----|------|-------|
| .7 | 1.3 | 16.4 | 18.4 |

The pear and the apple belong to the same family. The native home of the pear is the same as that of the apple, and it, too, has been cultivated from the time of the Greeks and Romans. The pear-tree is, perhaps, the most hardy of fruit-trees, sometimes living several hundred years.

Perhaps the pear is still better suited to be eaten raw than the apple, as it

loses more of its charm and flavor by cooking.

Baked Pears

There are, however, hard varieties of pears which are hardly suitable for eating raw, and they are excellent baked. Some varieties are nice simply washed, put into a pan with a little water, and, without the addition of sugar, baked till tender. Some small varieties are good baked whole in a bean-pot with one-half cup water, or more, to each quart of fruit. The large varieties may be quartered and cored before baking, and if tart, may require the addition of a little sugar. After cooking in any of these ways, they may be served with sugar and cream.

Pear Sauce

Prepare like apple sauce. Pear sauce will require very little sugar.

The Quince

The botanical name of the quince is *Cydonia*, a name which was given it because it was found growing abundantly near Cydon, on the island of Crete. It belongs to the same family as the pear and the apple. It requires a longer season to reach maturity, and in this country it never ripens sufficiently to be palatable when eaten raw. It is esteemed for its flavor when used with apples in making sauce and jelly.

Baked Quinces, No. 1

Quinces may be baked with the skin on, or may be pared before baking. Remove the cores, fill the cavities with sugar, put into a baking-pan, add water, and bake till tender. This will require a longer time than is required for baking apples. Baste with the sirup while baking, adding hot water if necessary.

Baked Quinces, No. 2

Quinces may be quartered, cored, and pared, and baked in a bean-pot or covered pudding-dish, using for eight large quinces three-fourths cup of sugar and one and one-half cups water.

Quince and Sweet Apple Sauce

This combination is enjoyed by many. Quarter, core, and peel sweet apples and quinces, using two or three parts of apple to one of quince. Put the fruit into a kettle, add boiling water, and stew till tender. Add sugar if necessary.

The Orange

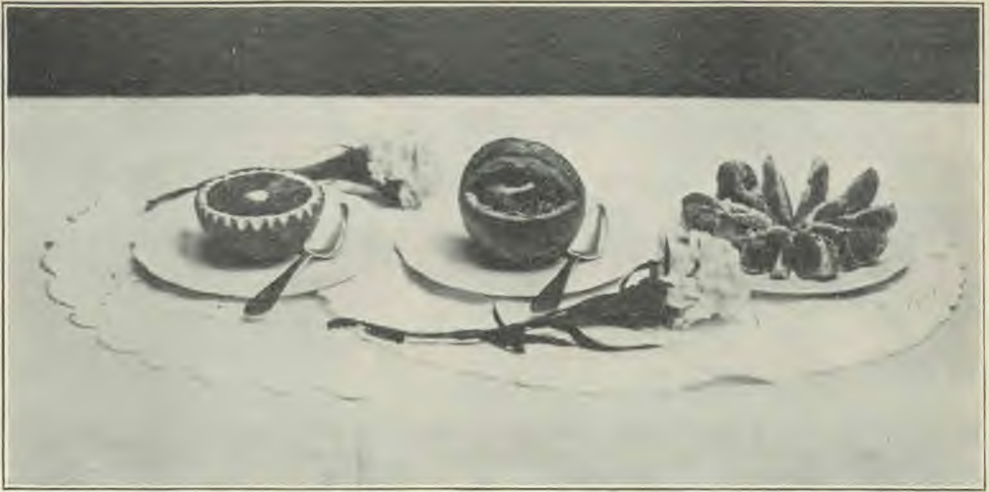
| FOOD VALUE PER OUNCE IN CALORIES | | | |
|----------------------------------|-----|------|-------|
| PRO. | FAT | CAR. | TOTAL |
| .9 | .5 | 13.5 | 14.9 |

The orange is a native of Persia, but is now cultivated in all the warmer regions of the earth. "Trees of the orange tribe naturally live to a very great age in a soil and climate which suits them. There may be seen in an orangery at Versailles, France, a tree which was



WAYS OF SERVING ORANGES

The first dish is a sliced orange. Peel the orange; slice it with a sharp knife, allowing the slices to fall against one another as they are cut; then cut down through the slices just as they lie. Separate the slices slightly.



WAYS OF SERVING ORANGES

planted in 1421, and is still very healthy, growing with its roots in a large box. Under favorable circumstances, the productiveness of the orange is astonishing. . . . An orange-tree . . . in an orange garden of Barao das Laranjeiras (Azores)," is said to have produced 20,000 oranges in one season.

Ways of Preparing Oranges for Serving are shown in the illustrations. The orange and its juice are conceded to be among the best of medicines for the sick and convalescent,—a medicine which is much more pleasant to take than many a physician's potion, and, I am inclined to believe, more potent in its beneficent effects upon the patient. If well persons would more freely use oranges (spending the money, let me suggest, which is now spent for tea, coffee, and other harmful indulgences, for fruit), they would less frequently come under the care of the physician.

The Lemon

| FOOD VALUE PER OUNCE IN CALORIES | | | |
|----------------------------------|-----|------|-------|
| PRO. | FAT | CAR. | TOTAL |
| 1.2 | 1.8 | 9.9 | 12.9 |
| Lemon-juice — | | | |
| | | 11.4 | 11.4 |

The lemon is probably a native of Arabia. It was unknown to the ancient Greeks and Romans. It has now come

to be grown in the West Indies and the southern United States. Lemon-juice is used as a refreshing beverage in fever and scorbutic affections.

While all fruit-juices are natural disinfectants and germ destroyers, this is especially true of lemon-juice, because it contains such a strong acid. "The juice of one lemon in two glasses of water, if left standing fifteen or twenty minutes, will thoroughly disinfect it. Thus fruit can be of great assistance to travelers, as the water on cars and in waiting-rooms is often so impure that it would be dangerous to partake of it." The lemon is highly valued in cookery as a flavoring ingredient, and its use is very common in making the popular beverage lemonade, for which some readers might like a recipe.

Lemonade

| FOOD VALUE PER OUNCE IN CALORIES | | | |
|----------------------------------|-----|------|-------|
| PRO. | FAT | CAR. | TOTAL |
| | | 17.7 | 17.7 |

1 qt. water
 Juice 3 large or 4 small lemons
 $\frac{3}{4}$ cup sugar

After squeezing out the juice, strain it through a fine strainer. Thin slices of the lemon (cut off before the lemon is squeezed) may be added, if desired, or the rind of the lemon may be scored with a fork, and the sugar rubbed over it to get the lemon flavor. Mix the ingredients; and when the sugar is



ILLUSTRATING THE PREPARATION OF GRAPEFRUIT FOR THE TABLE

dissolved, the lemonade is ready to serve. If used for medicinal purposes, as in fever, or as a hot drink in connection with treatment to ward off a cold, it would be better to use less sugar.

The Citron

The citron is a fruit similar to the lemon, but larger and less juicy, having a much thicker rind. The citron is described by Theophrastus as abundant in Media. The Jews cultivated it at the time they were under subjugation to the Romans, and used the fruit then as at the present day, in the feast of tabernacles. It is grown in the West Indies. The fruit is not eaten raw; but a drink is made from its juice with water and sugar. Its thick rind is preserved in sugar, and used for flavoring purposes.

The Lime

The lime is similar to the lemon, but smaller. Its juice is acid, slightly bitter, and seems to me to have a sort of piny flavor. It is used in making drinks, and is sometimes preferred to the lemon. The lime has been celebrated in all ages for the fragrance of its flowers, and the excellence of the honey made from them. British sailors are furnished a weekly allowance of the extract of lime or lemon as a preventive of scurvy.

The Grapefruit

| FOOD VALUE PER OUNCE IN CALORIES | | | |
|----------------------------------|-----|------|-------|
| PRO. | FAT | CAR. | TOTAL |
| .9 | .5 | 11.8 | 13.2 |

The grapefruit is a variety of the shaddock, which belongs to the same family as the orange and lemon, and of which there are more than one hundred fifty varieties. The shaddock is a very large fruit, sometimes weighing from ten to twenty pounds. The grapefruit is smaller. It has a smooth, pale-yellow skin. Its juice has an acid, somewhat bitter taste as we get it in northern markets, though sweet and not bitter where it grows. It is coming to be a popular fruit, eaten as an appetizer before breakfast, and also used in making salads.

To Prepare Grapefruit for Serving

Wipe the fruit, and cut it into halves crosswise. With a small, sharp-pointed knife cut all around the fruit just inside the skin so as to separate the pulp from the skin, then cut on both sides of all the membranes which divide the fruit into sections, and then cut next the skin on the inside at the end of the fruit, when the entire membranous portion may be removed in one piece, leaving the sections of pulp in place in the skin, but free from tough portions. It is then ready to be served on a fruit-plate, or it may be sprinkled with sugar and allowed to stand in the refrigerator for ten minutes before serving, or a tablespoonful of grape-juice may be poured over the pulp before it is set away to cool.

THE MEDICAL MISSIONARY AT WORK



RAROTONGA, COOK ISLANDS

G. L. Sterling

PEOPLE searching for pleasure and delighting in travel, pass in great numbers through these islands on their tours north or south. Attracted by the novel and beautiful tropical scenery, they leave the steamer, and in a boat propelled by oars come ashore for a nearer view, and perhaps for a pleasant four hours' drive. The novelty of the place, its mountains and drives, and its care-free life prove so great an attraction to some that they decide to stop off a month and experience life in the tropics.

The visitor, whether spending but a

day on land or a month at a boarding-house with little to do but rest and read or go in search of such pleasure as the island affords, carries away with him glowing accounts of the beautiful South Sea islands, where food grows in abundance, and a living is obtained without labor. Such accounts as these have brought many a man to the islands in search of a home and an easy life. In this, however, they are disappointed, and sooner or later leave for other shores.

During a short visit one does not become enervated by the constant heat of the tropics; but after living here a few



TIRIARA LAKE, MANGAIA, COOK ISLANDS

years, a lassitude, or a worn-out feeling, is experienced, and fatigue follows every slight exertion.

It is true that we do not have the extreme heat throughout the year. That would be almost unendurable. There are three or four months of moderate temperature, when the weather is more agreeable. It is usually at this time, called the cool season,—though it is far

have. Tropical fruits of nearly every description can be grown here, though I would not lead any one to think that all tropical fruits grow here naturally and without care.

In a land continually under the tropical sun, as this is, one must guard his health if he desires to keep it. We can not put forth the exertion here that we are accustomed to in cooler lands. God has



NATIVE FAMILY, RAROTONGA

from what would be called cool in the United States,—that most of the tourists visit Polynesia. This accounts in part for their praise of the climate of these islands. I do not mean to say that the islands are altogether undesirable as a place in which to live. From a missionary point of view I can say that I love this place, for there is work to do here for God.

Though these islands, in common with others, have their drawbacks, yet we have many things to enjoy in the tropics which those in more favorable climes do not

wisely supplied the islands with foods which are easily grown, thus enabling man to conserve his strength. Again, the strong heat- and energy-producing foods usually eaten by those of cooler climes, can not be partaken of freely here without endangering the health. It is a significant fact that many foreigners subsisting principally on foods imported from their home lands, including such articles as beans, peas, and beef, have sooner or later broken down in health, and have been forced to change their diet or seek a cooler climate. This again

shows God's wonderful providence in causing to grow in each land and clime the foods most suitable to local climatic conditions.

Fruits are a most healthful food in warm weather. Oranges are indigenous throughout the low lands and foot-hills. Ten or fifteen varieties of bananas may be grown in abundance if planted and given a little attention. The mango is a fruit much liked by the Maoris, and even by foreigners when they become accustomed to it. The coconut, perhaps the most valuable of all island productions, is used in one form or another at every meal. Guavas and mountain apples may be procured in season, and are very delicious, especially the former, which are eaten either raw or stewed or made into jelly. The papaw, or mummy apple, is another fruit which should not be forgotten. Though not generally regarded by the Maoris as good food for man, yet its properties demand for it a high place among the fruits of these

islands. Its action on the system is that of a very mild cathartic. By freely partaking of it, the bowels are kept in good condition — a thing most desirable in any warm climate. The mummy apple has a very pleasant taste, and no doubt is much enjoyed by the pigs, to which it is fed by the Maoris. It may be eaten raw, stewed, or in jam; and with it excellent pies are made. Limes take the place of lemons to quite an extent when one becomes accustomed to their peculiar flavor. We use them sparingly, owing to their strong acid nature. The fruits I have mentioned are all natural fruits of these islands. Nearly every tropical or semitropical fruit will grow here if cultivated. A number of varieties may be seen growing on land belonging to foreigners.

Doubtless many who read this article would like to know about the people who live in these islands. In a later issue I will endeavor to relate something concerning them.

A MEDICAL EVANGELIST AMONG THE AYMARAS OF PERU

F. A. Stahl

THIRTY more ready for baptism!" With this cry I was greeted by the Indian brethren by Lake Titicaca, in the Peruvian Andes, four months after a former stay among them. It was true. Thirty more were walking in the light, meeting at the altar of prayer morning and night, and worshiping on the Lord's holy Sabbath.

I found many more awaiting instruction and treatment. Calls came in to visit the sick. On reaching their homes, I would find, instead of one person, five or ten others, who had been brought from still more distant parts. After attending the sick, a meeting would be called for. The people never tired of

hearing about Jesus, and that he is soon coming back to earth.

At one place, a boy eight years old was brought to me. Disease had destroyed the sight of both eyes, and he was sobbing as if his heart would break. I drew the little fellow close to me, and explained that if he gave his heart to the Lord, and remained faithful, Jesus would soon take him to a new home, and his sight would be restored. The child stopped weeping; his face lighted up as this new hope came to him—the "blessed hope," the same that cheers our hearts.

Every day more people came, bringing their sick two or three days' journey.

But the sad part of it was, we had no place to keep them, nor had we the proper food for them. Twenty-two patients were compelled to lie on the bare floor of a school building, without sufficient covering. I used everything available to make bandages and compresses. Finally I asked Brother Comacho, our chief brother here, if the people would stop coming soon.

"No," he said; "they will return to their homes and tell others in still more distant parts."

I told him that it was better that I should leave for the present, and that I would present their needs to our conference brethren, and the Lord willing, I

would soon return to fit up a place where the sick could be cared for. All we need is a plain two-story building, fitted up to give the most simple of our treatments.

Some may wonder why they are sick; but this is no secret. It is because of their ignorance of the laws of health. Cleanliness is something they do not understand. To help them, I formed what I called a "washing class." It was very amusing, at the same time pathetic, to watch an Indian scrub one part of his face or hands until told that it was time to move on. What they need is simple, loving instruction in the principles of right living, and how to believe on the Lord Jesus.

ABYSSINIAN WOMEN

Mrs. Alice Grundset

THE women of Abyssinia enjoy full liberty, as they have no foot-binding nor other customs that confine them to their homes. Their clothing consists of a dress, made quite short, according to their style, with a *nuttsele* worn over the shoulders; but neither head-dress nor foot-wear is used.

The married women have their hair nicely arranged in various braids, while the unmarried have their hair cut short. All oil their heads abundantly. Thus dressed, they go early in the morning to the market-place, with their milk, eggs, chickens, and grain, carrying a bottle of milk, etc., on their heads. Those having infants a year old or more carry them in a leather sack, strapped to their shoulders. On returning, they generally bring oil or kerosene in their bottles. The few pennies remaining after the day's shopping are hidden by the mother, to be used

only in case of some pressing need. These people are very simple in their habits. They live in huts built of small stones and mud. Their homes also serve as shelter for their goats, donkeys, and other live stock during the night. The whole family, together with these animals, sleep in the same room.

They raise their own grains, and the women grind the necessary flour, from day to day, between two stones. Bread is baked in a sort of clay and mud oven. They are very untidy, and seem to have no thought nor understanding of even the first step toward cleanliness. The older women are very set in their customs, as well as in their religious views, and are hard to reach; but they are very inquisitive, and will ask all sorts of questions. Through this avenue we hope to turn their minds to better things. A great work needs to be done for these women.



THE INSURANCE COMPANIES AND AMERICAN LIFE-WASTE

STATISTICS show that our death-rate per thousand from all causes in the United States registration area has decreased from 18.6 in 1880 to 15 in 1909, a reduction of about 19 per cent, or nearly one fifth. This would seem to be cause for much congratulation, but it does not tell the whole story; and the life insurance companies realize that this decrease does not mean so much as it seems to mean. The fact is, the largest gain has been in the prevention of unnecessary infant mortality. Below forty years of age there has been a notable decrease in mortality, but above forty the *increase* has been 26.8 per cent. It is this latter increase in mortality that must necessarily tell most heavily on the profits of the insurance companies; for we find most of the insurance policies covering these ages. In other words, it would seem that among the people who insure, there is a tendency to earlier deaths than formerly.

Naturally the insurance companies are eager to determine the cause of the increase in mortality in the after-forty class. The Provident Savings Life Assurance Society of New York has issued a pamphlet well illustrated with diagrams. The title is "American Life-Waste: Where and How It Is Increasing." This pamphlet, which the company sends on application, and which is well worth the perusal of every person interested in his own longevity, shows that the increase of cancer is not merely an apparent increase, and it is not to be ascribed largely to the fact that more people reach cancer age than formerly.

There is a real increase in the amount of cancer not only among the aged, but practically among all ages.

The same is found to be due with regard to the so-called degenerative diseases—affections of the heart, blood-vessels, kidneys, dropsy, and the like; and here again the increase is found to be not the result of better diagnosis in recent years; for while false diagnosis would alter the figures within the group of degenerative diseases, there is scarcely any physician who would not have included these diseases somewhere in the group. In these diseases, also, the increase has been practically at all ages, although it is more marked among the aged, having nearly doubled beyond the age of sixty. The physicians of the Provident Life Assurance Society believe, with us, that there is a reason for this increase in life-waste, and the following are some of the excellent suggestions which they make:—

"As to the methods of prevention, it is apparent that the business, social, and domestic conditions which make such heavy demands upon brain, nerve, and artery, must be corrected, or a greater degree of bodily resistance must be built up in order to offset such influence. . . . Probably the most protective measure will be found in periodical medical examinations, whereby the earlier symptoms of degenerative tendencies may be detected, and the proper correction in life habits adopted. In a general way, the best safeguards are: temperance in all things, mental poise, patience, courage, and the avoidance of hysterical unrest and needless overstrain in meeting the complexities and problems of existence."

The report proceeds with a discussion of pneumonia, tuberculosis, typhoid fever, and diphtheria, all of which show a

declining death-rate, and points out that still more might be done in the direction of stamping out these diseases.



The Evolution of the Health Department

THE health department is now in the process of making. In some places the operation is just begun, in others it is more advanced; but in the United States we scarcely yet know the importance and the value of training health officers for their work.

In the country districts and small towns, any man may be health officer, no matter what his qualifications. In more advanced communities, he must be at least a physician. In the most advanced communities it is being recognized that a medical education, training a man, as it does, to recognize and cure disease, does not by any means fit one effectively to prevent disease.

In general, it may be said that health officers have not had adequate training for their work. Only recently have there been any schools, at least in the United States, giving a training for public health work. It is true there has been training given in bacteriology, in chemistry, in sanitary and chemical engineering, and in some States, notably New York and Indiana, there have been courses given by the State health departments for its local health officers. In New York at the present time there is given a short course in the elements of public health work every week in the year. This is good so far as it goes, and together with the annual sanitary conferences and the published bulletins, it renders the local officers far more efficient in their work; but we are still far behind England, where there is a regular training given, with the degree Deputy of Public Health, D. P. H., to fit men for the position of health officers.

There the custom of practising med-

icine and doing public health work at the same time is discountenanced; and it is strongly advised that where a community is too small to afford the services of a health officer, two or more communities combine and secure a man, to give his entire time to this work.

We now have a course in public health at the Harvard Medical School and at least one other school, and doubtless there will soon be such courses offered in all the principal schools.

Gradually we are awaking to the fact that poor roads are far more expensive than good roads, and we shall soon learn that there is nothing more disastrously expensive in every way than indifference to health matters, and the tendency to allow the health office to be a political football, or be a poorly paid office drawing to it only inferior or poorly prepared men.

The most efficient health department system is that based on efficient local officers; but in order to correlate and direct these, there must be a well-organized State department. And it is being recognized that in order properly to correlate the State departments, there must be an efficient national department of health.



Vaccination or Smallpox?

IN Public Health Reports, March 10, 1911, Passed Asst. Surg. Victor G. Heiser, chief quarantine officer and director of health for the Philippine Islands, gives an official report on "Smallpox and Vaccination in the Philippine Islands," which should be food for thought for all persons who prefer fact to fancy and reason to opinion.

Much has been said to the effect that vaccination does not protect against smallpox, and that it is followed by frightful results. As to whether vaccination protects against smallpox, this report certainly gives very convincing testimony:—

"Since completing, in 1907, the systematic vaccination of the six provinces near Manila, which have an approximate population of one million, and which from time immemorial had an annual average mortality from smallpox of at least 6,000 persons, not one person has died of smallpox who had been successfully vaccinated, and only a few scattering cases have occurred. During the past two years some deaths have been reported, but careful investigation shows that not one death took place in a vaccinated person.

"In May, 1904, the United States army transport 'Liscum' left Manila with 26 cabin passengers, 170 steerage passengers, 16 officers, and 80 members of crew, or a total of 292 persons on board. During the first week smallpox broke out aboard the vessel in an unvaccinated child in the steerage. An examination of the personnel on board showed that three members had never been vaccinated. Within a period of two weeks these unvaccinated persons were stricken with the disease, and not one of the 289 remaining persons contracted it.

"During October, 1910, information was received that in the remote town of Baler, with a population of 2,417, situated on the east coast of Luzon, smallpox had broken out among the unvaccinated children. There were 100

cases, and 27 persons had already died. An average of 35 new cases was occurring daily. Through the efforts of the Hon. Manuel Quezon, delegate from the Philippine Islands to the Congress of the United States, the people were induced to submit to vaccination. The number of new infections decreased rapidly, and fourteen days after the last person in that town had been vaccinated, about October 20, no further cases of smallpox occurred."

There is a lady physician, Dr. Mary, whom we all admire for her courage, yet we can not help smiling at her freakishness. The estimable lady who has always insisted on wearing trousers, has recently given the harem skirt her unequivocal endorsement, and has started a campaign against vaccination, asserting that the use of onions is a better preventive of smallpox than vaccination.

If her assertion is so, it would indicate that the smallpox germs have a keen sense of what is "correct" in the way of odor. If onions are not handy, one might try asafetida.



INTERNATIONAL HYGIENE EXPOSITION, DRESDEN, "DER MENSCH," OR THE POPULAR EXHIBIT

The pavilion known as "Der Mensch" was by far the most popular of all the exhibition buildings at the Dresden exposition. In fact, so far as the common people were concerned, this in itself was a complete exhibition. No pains were spared to make this a university of hygiene instruction adapted to the needs of the common people.

AS WE SEE IT

Our Attitude Toward Law

IN the course of a conversation with the inspector of factories, Birmingham, England, the topic of factory laws was brought up. "You have some very excellent laws in America," he said, "but why do you not enforce them? We are not always so fortunate as you in the matter of laws regulating industrial conditions, but what we have we try to enforce."

I could say very little in reply, except that with us there is a lack of sacred regard for law for two reasons:—

(1) The ease with which laws are made and unmade to suit the parties in power.

(2) The diversity of laws in the different States.

Where there are so many standards as shown in the laws for divorce, the excise laws, etc., the people naturally come to look upon the law, not as embodying the wisdom of the ages, but as embodying the eccentricities of the various sections of the country, and hence entitled to little respect. In England there is one authority. If there is a question of diplomacy, the national leaders do not have to consult the natives of Wales or Cornwall before making a treaty with a foreign power; and some officious country officer is not likely to cause international trouble by arresting a foreign ambassador for speeding. There is no "State rights" boggy constantly threatening international troubles. All law there is proclaimed with royal authority. It is the law of the land, not the law of a party. In the United States there is a conflict of State with federal law, which can have nothing but a damaging effect

on the people as regards respect for authority. Take, for instance, the prohibition laws. Several States have passed such laws, yet the federal government virtually rides over these laws by permitting those who have paid the federal taxes to express, C. O. D., for sale in the prohibited district, as much liquor as they like, thus virtually making the express companies their agents in circumventing the laws of the State.

Every law that can not be enforced breeds just so much disrespect for the laws. In as far as prohibitory laws cause a wholesale effort to circumvent the law by persons who otherwise are law abiding, to that extent they help to produce a spirit of lawlessness.

As my friend the inspector said, we seem more anxious to make many laws than we are to enforce those we have.



Wheat Bread

A BRITISH government board report has been made by Dr. J. M. Hamil on the nutritive value of bread made from different grades of wheat flour, which has some interest in view of the recent agitation in favor of standard bread. Dr. Hamil, after an examination of the published evidence regarding the merits of flours prepared from different kinds of wheat and by different methods, states that there is not a great difference in protein content between patent flour and entire-wheat flour, a difference which may be largely neutralized by imperfect intestinal absorption. He finds sometimes a greater difference in protein content of patent flours made from different varieties of wheat than between a given

patent flour and the whole-wheat flour made from the same wheat; that is, there may be a greater difference in the protein content of different grades of wheat than in the flours made by different milling processes from the same grade of wheat, so that a patent flour from a strong wheat may actually contain more protein than an entire-wheat flour from a weaker wheat.

Dr. Hamil notes that certain persons find from experiment that a certain variety of bread agrees with them much better than any other. He attributes this to the habits of mastication of the individual, the presence or absence of laxative properties, the presence or absence of a large undigested residue, the nature of the other constituents of the diet, etc.

Dr. Hamil does not believe that a dietary consisting largely or almost entirely of bread is satisfactory from a nutritive standpoint, or that a more varied diet need be more expensive. Family flours, or "households," he does not find to be inferior in nutritive value to the higher priced very white flours, but superior if anything, owing to the fact that, having some of the germ and of the outer portion of wheat, they contain phosphorus and other substances which, even in minute quantities, may be valuable. This is also true of the entire-wheat flours, but on account of their coarseness they are sometimes liable to cause digestive disturbances.

Dr. Hamil believes that the best way to secure proper nourishment of children is by means of a varied diet; but when the dietary consists of bread, together with jam, sugar, etc., which do not contain minerals and protein, he thinks it important to use bread of the entire-wheat type, having, perhaps, the bran finely ground. He finds no conclusive evidence for the theory that the use of whole-meal bread acts in any way as a preventive of tooth decay.

This is a question on which many persons have decided convictions, one way or the other. The last word has probably not been said on the subject.



Bread in Europe IN Germany it is not always easy to obtain wheat bread except in the form of buns, which come rather high. When white bread is called for, a light rye is handed out, which may contain a portion of wheat flour. The wheat bread is much more expensive than the rye, and does not seem to be much used by the Germans. The rye bread is much tougher than that sold by American bakers, so that after one or two trials, we gave up its use altogether, though at home we always use a certain amount of rye bread.

In England wheat bread is cheap and abundant, and there seems to be more effort on the part of bakers to furnish a nutritive, sanitary loaf than in America. There is, first, the Aerated Bread Company, which makes light bread without the use of yeast. This company has shops and restaurants all over London. One can obtain aerated bread either white or brown, or "standard." Hovis bread is another bread which is seen in shops all over London, and evidently has a large sale. It is the richest of all the breads, in nitrogen, contains a very small amount of cellulose, is rich in phosphoric acid, and is nearly as thoroughly utilized by the body as white bread. There are malt breads, white breads, brown breads, and oat breads in great variety. The protein in these breads ranges from 5.7 per cent in "honey white bread" to 9.9 per cent in Hovis bread. The carbohydrates range from 43.6 per cent in "cyclone whole-meal" bread (poor also in proteid, and only 92 per cent available to the system) to 63.5 per cent in "Veda" bread, which is also high in proteids, and is easily digested.

**The British
Exhibition**

OWING to the refusal of the British government to take part in the Dresden exposition, the British exhibit was opened quite late; but on the whole, thanks to private initiative, a very creditable exhibit was prepared. At the opening of the exhibit, Professor Renk, who accepted the pavilion in the name of the committee, while avoiding reference to the motives which prevented the participation of the British government in the exhibition, said it was quite unthinkable that Great Britain, a leader in hygiene, should be absent, when practically every country of importance had gladly cooperated. He praised the British committee for having successfully carried out its task, which was rendered more difficult through lack of government aid.

More than once the writer of this article was reminded by exhibition officials of the indifference of the United States in regard to the exhibition, and he has felt ashamed that his country was not represented, when even Japan, China, and Brazil had sent creditable exhibits.

But as he became convinced of the commercial policy which seems to have guided in certain features of the exposition, his regrets have been somewhat modified. When a hygiene exhibition, for the sake of the profit, will throw open its grounds as beer gardens to run till after midnight (some say two o'clock), and when the tendency is to make prominent the "social" features of the exhibition (to use a mild expression), and to place unusual restrictions on the spread, by means of the press and otherwise, of the educational teachings, it might not be altogether to the discredit of a country to be out of it.

I can not say enough in praise of the scientific part of the exhibit; and the financial ability of the management is unquestioned; for it is reported that the exhibition paid for itself long before the

close. Possibly the objectionable features were justified under the circumstances, but they did not recommend themselves to the writer.

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**Whisky
and Riot**

DURING the recent railway strike in Great Britain, Llanelly (South Wales) was particularly unfortunate. The authorities and the soldiery for some reason did not seem to have the situation in hand. According to the telegraphic news, there was "terrible rioting;" nine persons were killed, and thirty injured. "In the evening an infuriated mob sacked part of the town, looting shops, and strewing provisions and other goods about the roadway." In these riots there appeared to be a spirit of viciousness and criminality out of all keeping with what we had been led to expect of the British laborer. The great object of hatred seemed to be the railway company, yet these men had been working peacefully until the partial success of the dockers' strike in London suggested to the labor leaders to break their compact made in 1907 for seven years, and to declare a general strike. The impression that one receives from the whole affair is that there is a portion of the British laboring class who are not yet ready for freedom; who have not yet learned to have respect for their neighbors' property; and who, when a time of excitement permits, become criminals in fact, a dangerous element in the community; and who have to be held down by the combined force of the constabulary and the military. It was not a fight for freedom, but a mad attempt to destroy property of rich and poor alike, a wild orgy of pillage and rapine, and a disgrace to the town. The news of this incident will doubtless cause the reactionaries over in Russia to rub their hands in glee and say, "We're not so far off, after all, in restricting the

privileges of the lower classes." We were informed that as they were pillaging the railway train, "the mob found some whisky and beer in the trains, and a *wild orgy followed.*" Of course! We read that the authorities had in mind, after the riot had begun, to close the public houses. *Had they done so several days before, the town would doubtless have saved itself a terrible disgrace.* Liquor is the food which nourishes the mob spirit.

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Fewer Saloons

ACCORDING to a "blue book" just issued in England, there is a steady decrease in licensed public houses and a corresponding increase in clubs. On Jan. 1, 1910, there were in England and Wales 116,922 licensed liquor houses; 92,484 of these were "on" licenses, permitting the sale of liquor for consumption on or off the premises. There has been a steady decrease since 1895 from a total of 103,341 "on" licenses or 33.94 per 10,000 population to 92,484 or 25.84 per 10,000 population. During 1910 there was a compensation paid, averaging more than \$4,000 for each of 991 licenses revoked. There has been also a steady decrease in the "off" licenses issued, from 25,405 to 24,438, within the fifteen years. In six years ending 1910 there has been an increase in clubs from 6,371 to 7,536. There has been a decrease in the arrests for drunkenness, though in the metropolitan police and some other districts, there has been a slight increase. But the decrease in open drunkenness does not necessarily mean a corresponding decrease in the damage done by alcohol; for it is not the man who occasionally goes on a spree, but the man who habitually drinks in so-called "moderation" that has his liver and arteries hardened. While the

club houses may lessen open and boisterous drunkenness, they do not lessen the insidious effects of alcohol.

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Untoward Effect of Sunlight

THE London daily *Telegraph*, while it acknowledges antecedent conditions leading up to the great English strike, expresses the opinion that the unwonted turbulence has been precipitated by the excessive sunlight to which England has been subjected during the previous two months, and calls attention to the fact that it has been demonstrated that excessive sunlight may have a disturbing effect upon the nervous system.

"Sour grapes!" we might say. Perhaps this may account for some of the labor conditions witnessed in Colorado and Idaho (!) but what about Pennsylvania and some of the regions blessed with a more liberal allowance of cloud? Will some one kindly investigate the lynchings (of which they will not have far to go to find examples) as to whether they occur in unusually bright weather?

The writer would like to append a corollary to the *Telegraph* theory. He has noted, during the present agitation, that England's cities have a large contingent of "hooligans," a slum element with all the instincts of the criminal, but ordinarily without the courage to carry out their malevolent desires—a set of mongrel curs, as it were. Is it not possible that the beneficent sunshine has so permeated these low creatures as to raise their courage up to the point where they are criminals indeed? Perhaps we have an example of the stimulating rather than the so-called pathological effects of sunlight. In the writer's opinion, England has not had enough sunlight to hurt it, except as crops have been lessened by the shortage of rain.

Light and Riot THE theory propounded in England that the unwonted mob spirit was due to the excessive sunlight, may have a rational basis; for a report from Paris states that the beer statistics in France, especially in Paris, are almost incredible, and this phenomenal increase in drink consumption, we are assured, is due to the unusual heat. Now if increased heat causes increased consumption of beer in France, it stands to reason that a like cause will be followed by a like effect in England. Increased sunshine, increased heat, increased —; but the papers have supplied the rest in their news columns. The criticism will be made that this is unscientific and illogical, but perhaps it will "hold water" as well as the theory that unwonted sunlight set England's population all awry. The proposition can not be gainsaid that the danger from a mob, other things being equal, is in proportion to the amount of liquor obtainable by the rioters.

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A Beer Famine

A NEWS item during the great English railway strike stated that Manchester was threatened with a beer famine. Probably, to some of the denizens, that would have been a greater calamity than a famine for bread. But it is possible that if a liquor famine had come some days earlier, involving all Great Britain, there would have been less rowdiness and bloodshed.

It is a significant fact that the excise laws of Great Britain provide for the closing of "public houses," that is, liquor shops, in case of riot; and the government has called the attention of local authorities to this provision, so that they may take advantage of this precaution in case of danger.

Whatever "science" of the Atwater kind, or "higher mathematics" of the

Elderton-Pearson type, may say as to the food value of alcohol and as to the harmlessness of alcohol, the discriminating common man knows better.

Even the discredited boodle mayor of San Francisco was wise enough to close all saloons after the great earthquake and fire, with the result that the city, notwithstanding the fact that everything was in a condition of chaos, had for the time by far the cleanest criminal record of any period in its history, and men came to think that, after all, the mayor had escaped from the influence of the ring, and would finish his work with credit to himself. But no sooner was danger over from the unwonted condition, than this puppet of the political wire-pullers permitted the reopening of the saloons, with a repetition of the old scenes of disorder and crime.

The observing man knows that liquor in time of excitement is as tinder to the fire; and yet so powerful are the liquor interests that magistrates often dare not do what they know would be wisest under the circumstances.

✻

A Notable Exhibit

WALKING down Piccadilly one morning, the writer was attracted by a gathering of spectators outside a window which contained instruments and pictures purporting to show how animals are tortured in the processes of animal experiment, and notices requesting those interested to step inside, and sign the petition against animal experimentation and begging for contributions to help on the "cause."

Curious to know to what extent this exhibit misrepresented the practise of animal experiment, the writer ventured inside. A woman in charge stepped up, and asked:—

"Would you like to sign our petition?"

"I should like to know, first, some good reason for signing it."

"Do you know anything about vivisection?"

"I have been an eye-witness of the work in the experiment laboratories."

This ended the interview, and she went to another part of the room. Evidently she considered it useless to attempt to portray to an eye-witness the "horrors" of the animal-experiment room. I am curious to know what harrowing tales she would have told me had I pretended ignorance of animal-experiment methods. Many of those who have had their minds inflamed by the antivivisection literature and exhibits, would no doubt be agreeably surprised were they to witness the actual work of the experiment laboratory.

The golden rule requires that, as far as possible, one should give those who hold opposing opinions credit for honesty of purpose and a desire to know the truth; but I find it difficult to do this with respect to the leaders in the antivivisection movement. Many of their tactics savor of lack of candor. Any one acquainted with the work of the laboratories will testify that these people, either through ignorance or otherwise, misrepresent the work of the physiological laboratories.

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Avoid Error by Doing Nothing DR. WILEY has been charged with committing a grave error in hiring an expert a short time at twenty dollars a day instead of hiring a less efficient man at eleven dollars a day, the maximum allowed by his department. Possibly Dr. Wiley committed a technical error here. If so, he has done only what others "higher up" have done in other departments.

As a matter of fact, Dr. Wiley's grievous fault, in the opinion of his enemies, is that he refuses to allow consumers to

be fed on adulterated and poisoned stuff, and they are after his political head.

Some of Dr. Wiley's friends think he may have been too positive and too dogmatic in his attitude, and that he might have gained more by more persuasive methods. Perhaps so; but one who is leading in a great cause against great odds, and is in the thick of the fight, seldom has time to put on kid gloves; and if he is successful, his faults are buried. So may it be with Dr. Wiley. We wish him success in his struggle with the powers.

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The Pure Food Fight

THOSE interested (and who is not?) in the history of the struggle between the "interests" bent on supplying the public with foods in such a way as to secure the greatest possible profits therefrom, and the men, particularly Dr. Harvey W. Wiley, determined that the consumers shall have pure, healthful foods, and shall know what they are buying, will do well to read the editorial article, page 294, of the *Journal of the American Medical Association*, entitled "'Getting' Dr. Wiley."

There is no question whatever that there are scores and hundreds of food manufacturers who would be glad to tomahawk Dr. Wiley if they dared, and by one means and another they have succeeded in blocking his work. As a result of the decision of the referee board that small quantities of sodium benzoate are not harmful, they obtained permission to use this drug in any amount they saw fit, on condition that the label should state the amount used. The referee board upheld Dr. Wiley's contention that saccharin is injurious, and the Department of Agriculture declared that saccharin should be considered an adulterant after July 1, 1911. But in response to the protests of the manufac-

turers, the date has been extended to May 1, 1912!

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Rigid THIS box heading, very appropriate, we believe, accompanied an article in the *London Evening Standard*, which, after commenting on the phenomenal July weather (which, by the way, reminds us very much of a mid-California summer), made the following remarkable comparison:—

“On the whole, we do not deserve hot weather, which we cry for but anathematize when it comes. We are also too formal for it. Can we imagine Londoners bathing in Trafalgar Square or in front of Buckingham Palace? New Yorkers would. Would Londoners ever so far forego their habits as to stay indoors in the middle of the day? England is used to an equable climate, and we have the same habits winter and summer, all the year round. When we have a real summer or a real winter, the habits are inconvenient. But we do not modify them.”

The English are remarkably conservative. What has been the custom is the custom, and will continue to be the custom. What the fathers did is good enough for the sons and the grandsons. This is too sweeping a generalization, we admit, for England is making remark-

able progress in many ways; but the average Englishman will suffer untold inconvenience before he will change old habits. We were a little surprised, however, to see the admission in a prominent London daily.

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Decreased Tuberculosis in Ireland SINCE 1904 there has been a steady decrease in the death-rate from tuberculosis in Ireland, from 2.9 per 1,000 population to 2.3 per 1,000. In the report of the registrar-general, special mention was made of the active campaign against tuberculosis conducted by the Women's National Health Association, founded and presided over by the Countess of Aberdeen. This association has been carrying on an active propaganda, teaching the importance of ventilation, cleanliness, and the selection and cooking of nourishing food. Mothers and children are taught the principles of hygiene. Trained nurses, working under medical supervision, give valuable help. Meals are provided for schoolchildren. Consumptive patients are cared for in their homes. Such a campaign of education and help could not fail to have a marked effect in lowering the tuberculosis death-rate.



CURRENT COMMENT



ENEMIES OF PURE FOOD

WHEN it was first announced that Congress had called for an investigation of the facts leading to the charges made against Dr. Wiley by Messrs. McCabe, Dunlap, and Wick-ersham, the *Journal* expressed the opinion that no one would welcome such an investigation more than would Dr. Wiley, unless it were the general public.

Although the body created by Congress to look into this matter has been in existence but a few days, the mass of evidence already presented shows how accurate the *Journal's* statement was. Every point brought out so far has put Dr. Wiley in a more favorable light, while at the same time it has proved how well founded is the lack of confidence which the public has in those who are fighting him.

It has been shown conclusively that Secretary Wilson — unknowingly, probably — has been a passive tool of those vast interests which have made their money by poisoning the country's food and sophisticating its drugs. . . .

The American people, after having fought for over seventeen years to get the Food and Drugs Act on the federal statute-books, finally succeeded — thanks largely to the aggressiveness and honesty of the chief of the Bureau of Chemistry.

That act, though not so strong and comprehensive as it might be, can still furnish a large degree of protection to the public. At the outset the chief of the Bureau of Chemistry tried vigorously and unflinchingly to enforce it. Such enforcement against vested wrongs and opulent dishonesty was distasteful to

those in high places. The fortunes that might be made by polluting the food supplies of the country and by the manufacture of patent medicines were not to be abandoned without a struggle.

Pressure was brought time and again to secure Dr. Wiley's removal, but in each case it was found that that official was too strongly entrenched in the hearts of the great American public to be removed on any mere trumped-up charge. When the present charges were made against Dr. Wiley, the public and the press showed they had confidence in him.

The investigation that was demanded and is now being carried on, is proving as rapidly as possible that the judgment of the press and of the public is to be relied on.—*Journal of the American Medical Association*, editorial, Aug. 19, 1911.



Family Pets and Disease

THE principal obstacle to a general and truthful realization of the dangers connected with the domestic pet is found to be the sentimentalists, who are unwilling to admit that anything on which their affections are centered can become in any degree a menace.

The woman who refuses to give her child a red-hot poker as a toy has no hesitancy in putting into its arms the more dangerous, because more insidious plaything — the family cat.

Under normal conditions, the germs of nearly all epidemic and local diseases thrive upon the family cat. Even where the cat is not itself subject to the disease, it easily spreads the contagion, and oc-

asionally it is guilty on both counts. Thus, in the case of diphtheria, the cat not only has the disease itself, but also carries it upon the mucous membranes or fur. Influenza is spread broadcast by fur and feet, and Hawlett has recently shown that as a distributor of plague the cat vies in virulence with the rat.

Ringworm and tapeworm are spread in the same way, and pus germs find easy lodgment in the thick hair, from which the stroking hand quickly conveys them to the human body. The germs of typhoid and tuberculosis are similarly distributed, as well as the more subtle and less understood germs of whooping-cough, measles, scarlet fever, and small-pox. This is more readily appreciated when we consider how quickly the cat is given as a plaything to the child convalescing from a contagious disease.

It may be suggested that the same argument applies to the dog and the horse, and this we freely admit to be true, though to a less degree and with extenuating circumstances. The horse is so valuable as a domestic aid that its good qualities outweigh the bad, and, besides, in both the dog and the horse the possibility of contagion is greatly diminished by the more or less frequent soap and water baths. The evil in the dog has been officially recognized, and many dogs have been destroyed in the attempt to keep their numbers down.

It will be urged here by the cat lover that the cat also is of value to man, since it keeps the rats reduced to livable conditions. We are not disposed to dispute this possibility, but it is our opinion the good rat-catcher is extremely rare, — so rare that it is a matter of pride and boast when one is found. In our opinion the cat catches far more song-birds and nestlings than rats, and even if their rat-catching proclivities were more general, we are not dependent upon cats for this function.

Both the cat and the rat are undeniable menaces to human life; and of two evils, why choose both? The government scientists declare that the cockroach preys upon and destroys the bed-bug, but no one hesitates on this account to destroy as many cockroaches as possible.

These accusations are all valid against the family cat, but are of much greater force against the midnight prowler that devotes itself unrestrainedly to the collection of germs, the reproduction of its kind, and to making the night hideous with its noises.—*Bulletin of Chicago School of Sanitary Instruction.*



Drafts and Colds

DRAFTS seem a particularly controversial topic. On the one hand they are hailed as "spirits of health," and on the other hand they are anathematized.

Up to quite recent years most hygienists and physicians held drafts in abhorrence. Of late the object-lessons presented by open-air sanatoriums have made many converts to the cult of the open window, but the fear of drafts is still prevalent in all classes of society.

When we find two contradictory opinions so strongly held, we may be quite sure that the truth lies somewhere between the two.

It is certain that many colds are not due to drafts. The ordinary man assumes that drafts are the causes of colds; but unless he lives in a hermetically sealed case, he will always find drafts of which he can make a scapegoat. Further, it is in close and stuffy rooms, when the skin is warm and moist, that a draft is most readily perceived, and the cold ascribed to drafts in such instances is almost certainly due to the germs in the polluted atmosphere. One must be chary of accepting the statement, "I sat in a draft and caught cold."

And yet a draft may, under certain conditions, be a factor in the production of a cold, but it is an auxiliary factor; it may cool the blood to such an extent as to diminish the activity of the phagocytes and the vitality of the cells which line the respiratory passages, and thus render the mucous membranes more vulnerable to the bacteria of colds. It is possible, indeed, that the mucus itself in such cases loses its bactericidal power, and becomes a nidus for the growth of the micro-organisms of catarrh.

It may be said that it is impossible to avoid chills, and that germs are always at hand, and therefore drafts are always dangerous, and must frequently cause colds. But this is erroneous; for under ordinary healthy open-air conditions the vasomotor reflexes quickly respond to the stimulation of cold, and contract the blood-vessels so as to conserve heat. It is true that if a man lives constantly in a moist, warm, still atmosphere, with his skin continually protected from the normal stimulation of cool, moving air, the skin reflexes, if unexpectedly called upon, may forget their business and respond sluggishly and inadequately to the stimulus of cold, and heat may thus be unduly lost, with deleterious consequences; but the natural, well-fed, well-clad mammal has active, ready reflexes, and is not likely to be unduly chilled by drafts.

Drafts there must be, and it is easier to accustom the vasomotor centers to respond to them than to try to escape from them. Indeed, an endeavor to escape from them merely renders them dangerous.

The smaller and more concentrated the draft, the more likely is it to chill, both because a current cools as it expands, and

because a small draft may not be sufficient to arouse response of the regulative apparatus.

But, even if undue cooling occurs, it will not cause a cold unless the bacteria of colds are in evidence; and in clean, well-ventilated rooms such bacteria seldom appear. Here, again, an endeavor to escape drafts only favors the growth of bacteria, and renders dangerous a draft that otherwise might be quite harmless. It is in stuffy, dirty rooms and churches that drafts are most feared; and it is in such situations that there is most reason for the fear. In sanatoriums where drafts are large and constant, and where bacteria are comparatively rare, colds seldom occur.

We reach the conclusion, therefore, that drafts do occasionally play an auxiliary part in the production of colds, but they are easily deprived of their dangers, and should be favored rather than feared.

The skin is meant to be exposed to moving currents of air and vicissitudes of heat and cold, and to have a blood supply that ebbs and flows according to the thermal needs of the tissues; it is meant to perspire and to transpire. Therefore to shut it off from wind currents and to enclose it in a motionless layer of moist air is to depart very far from the ways of physiological righteousness. The bracing effects of dry air and of seaside breezes are largely due to their stimulating effects on the excretory and reflex functions of the skin; and the man who endeavors to avoid colds by avoiding all drafts will not only catch more than his share of colds, but will possess much less than his share of health and vigor. — *Ronald Campbell Macfie, M. A., M. B., in British Medical Journal.*



ABSTRACTS



In this department, articles written for the profession, and public lectures on hygiene, which contain matter of interest to LIFE AND HEALTH readers, are given in abbreviated form. Sometimes the words of the author are given, but more often the passage is abbreviated, or else paraphrased in popular language. Technical matters and portions of articles having no popular interest are omitted. Credit the authors for what is good, and blame "us" for the rest.

THE ACTION OF ALCOHOL IN SMALL DOSES



LARGE amount of experimental work has been done to determine the effect of so-called small doses of alcohol on the human body. In cases of under-nutrition the body always loses tissue; but if with the under-nutrition alcohol is given, the wasting is found to be greater. This ought to answer the question as to whether alcohol serves as a food to the body.

With the child the matter of nutrition is of supreme importance. He is composed of immense numbers of cells. It is because these cells take on nourishment, grow, and multiply, that the child grows. Any interference with the excretion of the waste products of the cells interferes with the proper growth and development of the cells. The addition of even a minute quantity of alcohol causes these young tissues to change more readily than in later life. Some degenerative changes take place in the young cells, but the greatest harm is the imperfect growth. The old Romans, who enacted that no mothers should take fermented liquors, were a long way ahead of us.

Much evidence has accumulated from Australia, America, and England showing that alcohol, as well as other poisons, interferes with the nutrition and growth of the young cell, and also with the rate of its division, and hence with the development of the individual.

In old age there is a change of func-

tion, always associated with change in the structure of the body itself. Tissues begin to waste, but this degenerative process in a normal individual takes place steadily and equally throughout the entire body. Dr. Mott says that alcohol has the peculiar faculty of attacking the weakest part of the body. Now the wise man pays particular attention to his weak points, whether it be the liver, the heart, or the blood-vessels; but alcohol (and other poisons as well) attacks the weak links, and causes them to degenerate much sooner than they otherwise would.

In disease certain tissues fail to perform their proper work because of the action of certain poisons generated, probably, in the body and not properly excreted. Does it stand to reason that such cases can be helped by another poison which has the same effect? Alcohol as a drug is often very dangerous. In healthy tissues, in young tissues, in old tissues, it tends to degeneration; but in disease, such as diphtheria, for instance, the heart is affected by the diphtheria poison in a manner that can not be distinguished from the way in which alcohol poisons the heart. In many cases of heart failure, alcohol does harm rather than good. It causes an increased accumulation of poison rather than a cure.

The blood of the healthy individual is exceedingly stable. It is merely a conveyor of nourishment and of waste.

After a meal the excess of new material in the blood soon finds its way into the tissues, and if more food is taken than the body can store away, it is rapidly excreted. If the cells can not take up the food, it passes out of the body as waste material.

In the blood there are small bodies the nature of which we do not know. We can recognize them only by their effects. We call them "bonds." There are two kinds of bonds. The first may be compared to a key to fit a lock. These bonds attached to the cells enable the cell to appropriate all material taken into them. There is an enormous number of bonds in a healthy person. These bonds are diminished when alcohol is taken. Alcohol either interferes with the production of these bonds or else causes their destruction, and the result is that the cells of the body are not so well nourished.

The other form of bodies is known as "antibodies." When an individual is given a comparatively large dose of poison, he succumbs; but if he is given minute doses at first, the quantity may be gradually increased until he can take enormous doses of the poison and still survive. If it were not for this fact, we should never be able to survive an attack of infectious disease. There is a gradual increase in the tolerance of the poison, due to the fact that the cells affected by minute doses thereof begin to form antibodies, which combine with the poison and render it harmless. Now we have learned that alcohol interferes with the production of antibodies, and hence renders the individual less able to withstand the inroads of the poison of disease. For this reason it is irrational to administer alcohol in such diseases as pneumonia or diphtheria.—*Professor Sims Woodhead, address before the British Temperance League, Caxton Hall, London, June, 1911.*

Arteriosclerosis

ARTERIOSCLEROSIS is a thickening and hardening of the arteries. Dr. Osler mentions five things that tend to the production of this condition: (1) Chronic intoxication, ingestion of alcohol, lead-poisoning, gout, and syphilis; (2) overeating; (3) overwork of the muscles; (4) kidney disease; (5) old age.

Roger believes that gastro-intestinal disturbances, characterized by fermentation and putrefaction, in other words, a condition of auto-intoxication, are important causes of arteriosclerosis.

Several observers have been able to produce arteriosclerosis in animals by the injection of poisons produced by bacteria. Arteriosclerosis has been produced in rabbits by giving an infusion of tobacco by the stomach, and also by causing them to inhale tobacco smoke. This may explain the marked action of tobacco when inhaled into the lungs by smokers.

"In smoking, however, the nicotin enters through the lungs, and strikes its first blow at the coronary arteries and base of the aorta, where the elastic fibers are under the greatest strain, and hence most liable to degeneration. It is, therefore, easy to understand why the smoking of heavy cigars should be one of the most potent factors in the etiology of arteriosclerosis and coronary sclerosis."

The discharges of carnivorous animals are far more offensive than those of herbivorous ones, and contain a much larger proportion of putrefactive germs. Pto-main-poisoning results from the use of putrescent meat. When one remembers that meat may remain long enough in the intestinal canal to become putrescent, the connection between the eating of meat and chronic intoxications is readily understood. Carnivorous animals escape these intoxications because of their

shorter intestinal canal and stronger digestive juices.

Our ancestors escaped many of our modern disorders by reason of their vigorous outdoor life. It is a question whether high blood pressure produced by vigorous exercise would of itself cause arteriosclerosis; but when there is added tobacco, alcohol, or auto-intoxication from wrong dietetic habits, this result is almost sure to follow.

Büttner, Albutt, Huchard, Dujardin, Beaumetz, and other authorities attribute arteriosclerosis to overeating, and especially to the use of flesh foods.

Substances which, entering the circulation, may irritate the vessel walls,—such as tobacco, alcohol, mustard, pepper, and other condiments and spices, with tea and coffee,—tend to cause a hardening of the arteries.

Professor Huchard, the world's greatest authority on blood pressure, together with certain German investigators, made extracts from condiments and spices, which, injected into animals, caused lime deposits on the arteries.

The use of tobacco or meat causes contraction of the small blood-vessels, and hence a rise in blood pressure. Witness the deathly paleness of the boy when he takes his first smoke. Since alcohol dilates these vessels, we can understand why tobacco creates a demand for alcohol.

The treatment of arteriosclerosis, as recommended by Huchard, is to remove the cause, which is generally poison, from the digestive tract, restrict the patient to a milk and vegetable diet, limit the intake of salt, encourage the elimination of alimentary toxins, and sustain the heart in the struggle against the hardened arteries.

Hirschfelder advises a carefully selected diet, restricted both in quality and in quantity, limiting especially the proteids, and eliminating as far as possible the purin bodies (as meat, tea, coffee) and also salt. Tobacco and alcohol should likewise be dispensed with.—*J. H. Neall, A. B., M. D., read before the Fulton County, Georgia, Medical Society, April 6, 1911.*



INTERNATIONAL HYGIENE EXPOSITION, DRESDEN, JAPANESE PAVILION

SOME BOOKS



The Laws of Life and Health, by Alexander Bryce, M. D. (Glas.), D. P. H. (Camb.). Published by Andrew Melrose, 3 York St., Covent Garden, London.

This is a rather bulky (egg-shell paper and wide margins) volume of 420 pages on popular hygiene, considering diet, work, rest, exercise, cleanliness, protection, moderation, and cheerfulness.

In the matter of diet the author disfavors strict vegetarianism, yet he makes this remarkable admission on page 23: "I am personally acquainted with many people who live on a purely vegetarian diet, i. e., fruits, nuts, and cereals, and I have always been envious of their physical and mental vigor and energy. There is an increasing number in this country and in America who live upon a purely fleshless diet, although including such products of the animal kingdom as eggs, milk, cheese, and the many milk products which are now on the market.

No one can gainsay the fact that the highest degree of physical and mental health can be maintained on such a diet, and that it is infinitely more suitable than a mixed diet for present-day dwellers. At the same time, those who elect to subsist on a fleshless diet would be well advised to include a considerable proportion of milk and egg protein in their diet, or if they refuse to do so, they should at least take care to provide themselves with some of the many carefully prepared nut foods now on the market."

Dr. Bryce does not think that the usual arguments against a mixed diet are well taken. He takes a neutral view regarding the effect of alcohol or mild drinks, and rather favors the use of tea and coffee, and of tobacco in moderation in the adult. He is, however, an advocate of good hard work; and the chapter on rest and sleep is especially valuable, containing suggestions which might help many a neurasthenic out of a blind alley. His directions for securing abundant air are practical, and his chapter on exercise contains some much-needed cautions for the ambitious athlete.

In his discussion of clothing he has taken a position regarding the use of corsets which seems to us unjustified. But in general the work, especially the chapter on moderation and cheerfulness, is worthy of an extended reading.

Thinking for Results, by Christian D. Larson. Published by the Progress Company, Chicago.

Some books feed the mind; others act as a stimulant or narcotic; others still are rankly poisonous. This book belongs to the second class. It is rather a stimulant than a food, and we are learning now in regard to the so-called stimulants that their eventual and real action is narcotic. They seem to stimulate to greater achievement, but instruments of precision show that under their influence less is accomplished than without them. We believe that if instruments of precision could be applied to the effects of books which stimulate rather than feed, a similar result would be apparent.

This book has the same general theme that runs through all the books of this class: namely, that a man can think himself into about anything he wants. The fairy tales of one's childhood days have here their counterpart.

It is an undeniable truth that without right thinking one can not do anything worth while. But the proposition that a man with bad heredity, and bad habits for years, can think himself into something good and pure and noble—well, he may think himself all that, and keep on thinking if it affords him any consolation (and it is better for him to hope and keep trying than to give up).

"Everything that happens to a man is the result of something he has done or fails to do," says the author. Granted! If a man is struck by lightning, it is because he placed himself where the lightning was going to strike, and then failed to jump quick enough when he saw it coming. His death is the result of wrong thinking on his part; for it is only perversity that would lead him to be in that particular spot at that particular time, when there are millions of safer spots he might as well have occupied!

It's a great book. But speaking seriously, we can only consider such loose-jointed, mushy books, written with the evident purpose of multiplying words without saying anything definite, as unfortunate additions to our literature.

The Temperance Compendium, a cyclo-pedia of facts, figures, and other useful data relating to the temperance question, prepared for the use of social reformers, by Walter N. Edwards, F. C. S. Published by Richard J. James, 3 and 4 London House Yard, Paternoster Row, London, E. C.

This is a book of 150 pages, prepared by one who believes, truly, that the cause of temperance is advanced only by appeals to truth. He has, therefore, attempted to gather from various sources reliable figures relating to the drink bill, verified data regarding alcohol and its influence, evidence that insanity and disease are caused by drink, the effect of alcoholic patent medicines, with a list of the same, and a host of other facts which may be useful to clergymen, teachers, and all who are working for temperance. Arranged alphabetically.

Prohibition Movement in Spain.—Mr. Alfred Ecroyd, the English temperance worker, formerly of Sheffield, England, but for several years a fruit-grower of Barcelona, Spain, has, in his new home, been a strong advocate of temperance, and now he purposes to publish a prohibition newspaper in Spanish. Mr. Ecroyd plans to establish a Spanish antialcoholic league, which may also include Portugal.

Beautifully Colored Foods.—There is one exhibit at the International Hygiene Exposition at Dresden which would please Dr. Wiley. A number of beautifully colored foods are shown,—jellies, jams, vegetables, candied fruits, meats, teas, "temperance" drinks, candies, noodles, cakes, and the like,—and beside them some of the dyestuff actually extracted from samples of the foods, and yarns dyed with the dyestuff. There was "strawberry red," "butter yellow," "tomato orange," and a host of other colors, calculated to dye the epithelial cells of the alimentary passage.

A Dangerous Worm Remedy.—The *Journal of the American Medical Association* recently published an account of a case of fatal poisoning by Thatcher's Worm Sirup, a nostrum which is found to contain santonin in dangerous quantities. The nostrum is said to "have a safe effect upon the child, and to leave it in a healthy condition." Not a hint is given that the remedy contains a dangerous poison, though santonin, even when administered by a physician, has caused total blindness and even death. As the *Journal* says: "A nostrum such as Thatcher's Worm Sirup, which contains santonin in poisonous quantities, has no place among domestic remedies."

Report of the First Annual Meeting of the American Association for Study and Prevention of Infant Mortality. Published for the Association by Johns Hopkins University, Baltimore.

This report gives a vast amount of matter relating to the causes and the prevention of infant mortality, from the men who are at present devoting to this subject their closest attention.

Those desiring to aid in the work of the association and to secure the annual reports should become members. Fee, three dollars a year.

For further particulars address Miss Gertrude B. Knipp, executive secretary, Medical and Chirurgical Faculty building, Baltimore, Md.

High School Health League.—The DeWitt Clinton High School League (New York City) has recently held an exhibit showing what it has accomplished for its members in four months. The improvement was so great, and the benefits so evident, that it is thought a national organization will be formed, with the purpose of organizing health leagues in high schools all over the land.

The National Insurance Bill.—An editorial in *Public Health* (London) thus summarizes the reasons for the antagonism of the medical profession to the National Insurance bill in its present form: "The attitude of the profession is easy to understand; for if the bill passes in its present form, private practise as it now exists will be abolished over wide areas, and replaced by a vast system of contract practise under the control of the friendly societies, and presumably administered on the lines of existing club doctoring. Such a change would be bad, not only for the profession, but also for the public."

The Austrian Pure Food Codex.—Recently the first volume was issued of what is probably destined to be a model for other civilized countries. It is a treatise prepared by the cooperation of government departments with associations of merchants, chemists, and physicians. Each chapter deals with one kind of food, giving the law relating to that food, description, methods of testing, regulations for the commercial use and sale of the article, and what disposition to make of that found unfit for food. The purpose is to acquaint dealers with the pure food requirements, and to guide consumers, inspectors, and judges.

IN THE MAGAZINES



Discussion of Articles on Hygiene and Kindred Topics Which Appear in the November Issues of the Magazines

Good Housekeeping Magazine

"Humidity in Living-Rooms"* is the title of a well-written article by Lillian S. Loveland, in which she gives the reasons why over-dry air in winter is objectionable, and tells how a husband and wife made their home more comfortable and more healthful. This is a subject which deserves more attention than it usually receives.

The Designer

If you are nervous, or if your long-suffering friends accuse you of nervousness, Dr. Wm. S. Sadler's article on "This Thing Called Nervousness—Its Cure,"* is worth clipping out and pinning to the wall for frequent reference.

"Whys and Wherefores of Obesity,"* by Dr. Etta Folley, explains why some people incline to be overfleshy, and gives rules for diet, bathing, and exercise, and other remedies. The diet advised consists essentially of a restriction of carbohydrates and fats. All food is reduced in quantity, and fluids are limited.

An excellent series running in the *Designer* concerns the "Work of Women's Clubs in Small Towns," showing how these clubs have improved the beauty and sanitation of their home towns all over the country.

The World's Work

Mr. Clarence Poe furnishes an article, "Life on the Farm," or "Little Stories of Big Farmers,"* which, though more directly connected with business success on the farm, affords a demonstration that farm life can be as progressive and afford as much scope for ingenuity as any other business. Farming is coming more and more into the hands of the intelligent and progressive; and the characteristics that make for good crops and for business success are precisely those which insure better sanitary conditions on the farm. What farmers have needed most, and what they are now securing, are improvements in labor-saving facilities not only for the farm work, but also for the housework.

* The articles designated by the asterisk have been read by the editor of *LIFE AND HEALTH*.

The Delineator

"A person who does nothing is only half alive, and is putting herself, through idleness, in the way of losing what life she has. Normal life means activity, and activity means growth, and growth means joy." Such is the burden of the article "Do You Know How to Work?*" by Anna Sturge Duryea. Edith J. R. Isaacs, in "My Servants and Yours,"* teaches that the only way to retain competent servants at fair wages is to "socialize the home;" in other words, to realize that the servant girl is a sister with human instincts, and to treat her as such. She gives particulars as to how the home may be made a home indeed for the servant.

"Economy and Cleanliness,"* by Royce W. Gilbert, treats in a creditable manner a subject that is hygienically as well as esthetically important. The article suggests various means by which, without additional expense and with very little trouble, dirt, and consequently disease, may be avoided.

Woman's Home Companion

This magazine is conducting a most commendable campaign for the purification of the moving-picture show. "The Moving-Picture Show in Your Town"* tells just what these shows are, what effect they are having on the impressionable minds of the children, how the moving picture can be made the ally rather than the antagonist of health and right living, and what parents can do to make the moving-picture shows what they ought to be. "Good Pies and How to Make Them,"* by Fannie Merritt Farmer, should appeal to the American husband.

Mother's Magazine

Katherine Curtiss contributes an interesting article on "How New Jersey Women Are Solving Household Problems," in which she describes some of the expense- and labor-saving devices which have proved to be of practical use for city and country housewives.

"The Nursing Mother and Her Care of Herself," by Drs. John B. Murphy, Caroline A. Watt, and F. J. Stewart, contains valuable information and advice for mothers, about

exercise and food, thoughts and companions, and the source of infant food.

Kate Davis treats the following subjects in "Baby's Realm," The Child with a Weak Back, Keeping Milk Pure, Clothes for Baby, When the Teeth Decay, Defective Schoolchildren, Home Remedies.

Every woman delights in sweet-scented sachets and perfumes, and Augusta Prescott has given some simple directions for making them at home, in her article on "The Art of Keeping Young."

Hampton Columbian Magazine

Louis Brownlow describes the hookworm fight now being carried on in the Southern States through the munificence of the Rockefeller Hookworm Fund. The article gives a description of the disease and its effects upon the patient, and the methods of cure now in vogue. Harris Merton Lyon tells of some of the drawbacks of the "Back-to-the-farm" movement. Another article shows the phys-

ical degeneration which results from the conditions under which operatives work in the cotton-mills of Rhode Island and Massachusetts.

Chautauquan

An article by Carl S. Dow on "Heating Houses and Public Buildings."

Harper's Bazar

"A Whitewashed Cabin," by Martha Cutler; "A Hallowe'en Supper," by Mary H. Northend; "Diet for Babies," by Marianna Wheeler, ex-superintendent of the Babies' Hospital of New York.

The Housekeeper

"How I Saved Myself From a Nervous Breakdown," by Reina M. Marquis; "Thanksgiving Recipes;" "Flowers Made From Vegetables;" "Dust,—What It Is, and How to Get Rid of It," by Margaret Soundstrom; "Building a Sun Parlor," by A. S. Atkinson.

Decrease in Medical Colleges.—The raising of standards is having a salutary effect on medical education, and many of the poorly equipped colleges have been compelled either to join with better equipped institutions or to go out of business. Since 1904 the reductions have been: regular, from 133 to 101; homeopathic, from 19 to 12; eclectic, from 10 to 7; other schools, from 4 to 0; total, from 166 to 120. What we lose in quantity we gain in quality.

Public Health Work in London.—The Royal Sanitary Institute was founded in 1876 by men who had the conviction that every poor person is entitled to pure air, pure water, and good housing. The work of the institute is apparent. The death-rate has fallen from 20.9 per thousand of population in 1876 to 13.4 in 1910. At the 1876 rate, about a quarter of a million more persons would have died in London in 1910. The institute can not claim to be the sole factor in the great change in the mortality rate, but it has been an important factor. Eight courses of instruction were given in 1910 to two hundred sanitary officers and inspectors.

Cooperation of Teacher and Physician.—A committee has been appointed by the public-health section of the American Medical Association to confer with a similar committee appointed by the National Educational Association to consider the health conditions which prevail among children in large cities, and of adolescent ailments which have a direct bearing on education. Dr. W. A. Evans, former health commissioner of Chicago, is chairman of the medical committee, and President David Starr

Jordan, of Stanford University, is chairman of the educational committee. There is reason to hope that this committee will devise practical means for the improvement not only of the physical health, but of the general efficiency of the children; in other words, that it will work for the preparation of better citizens.

Sanitary Conditions in Alaska.—The Public Health Service reports that sanitary conditions are unfavorable among the natives of Alaska, especially as regards ventilation, water, and disposal of filth. It is said that from twenty per cent of the natives in the north to fifty per cent in the south, are afflicted with tuberculosis. On account of their insanitary method of living, when an epidemic disease strikes their communities, it plays havoc with their numbers. On several occasions entire villages have been exterminated as the result of smallpox and measles.

Three Puffs of Tobacco Smoke.—As a part of the exhibit at Dresden showing the evil effects of narcotics, there are two plants growing under bell-jars. In one jar, which we are informed had blown into it three puffs of smoke from a cigar, the plant is much more sickly than in the other. The difference is striking. We had the services of a translator for part of the time. As he was accustomed to smoke and to drink beer, we took particular pains to have him translate for us the statements made regarding these indulgences. When he realized the significance of the effect of tobacco on plants, he said, "I must give up smoking." But he did not long keep his resolution.



No Drinking-Cups.—One does not see a public drinking-cup at the Dresden exposition. There are several sanitary drinking fountains.

Increase of Suicide.—In sixty-five American cities there was in 1890 a suicide rate of 12.3 annually per 100,000 of population; in 1895 the rate was 15.8, and in 1904, 20.7. Since 1907 it has remained above 20. The highest rate was 60 in San Francisco, with her suburb Oakland as second; and Hoboken, N. J., with 52.6, was third.

Temperance Congress.—The Thirteenth International Congress against alcoholism met at the Kurhaus, Scheveningen (The Hague), Holland, Sept. 11-16, 1911. The general topics discussed were: legislation; alcohol in the colonies; the judge and alcoholic patients; how to obtain the sympathy of governments and parliaments; organization of the community against alcoholism; preventive measures, garden cities, housing, etc.; treatment of alcoholics; alcohol and degeneration.

Copper Vessels for Food and Drink.—The Council of Public Hygiene of the Seine (France) has been called upon to decide as to whether the use of copper pipes for the conveyance of drinking-water is injurious. Dr. Gautier, the noted chemist, with other noted men, conducted the investigation. He has concluded that copper pipes may be used with impunity for the carrying of drinking-water, and that copper vessels, even when not lined with tin, do not have an injurious effect on food, even on foods containing acid.

The Pure Food Law in London.—The law here has a tendency to make dealers more honest. Here is the sign over the counter in a restaurant in Holborn: "Milk Notice.—Messrs. Diviani Brothers purchase all milk sold by them under a warranty of its purity and genuine quality, and take all possible precautions to insure its supply to our customers in proper condition; but they are unable to guarantee it as either new, pure, or with all its cream, and (to meet the requirements of the Sale of Food and Drugs acts) do not therefore sell it as such."

A Tobacco Sermon.—One exhibit at the Dresden exposition shows two landscapes—one as seen by the healthy individual, the other as seen by the person whose eyes have been fogged by tobacco.

English Teas.—Nearly every gathering in England has connected with it a "tea," which includes, of course, a serving of that popular beverage, together with cakes, cream, etc. This might be embarrassing for the conscientious guest, were it not that recently it has become "good form" for one not wanting tea to decline it, and take lemonade instead.

Sex Teaching in Vienna Schools.—Some years ago warning leaflets regarding the danger of sexual impurity were first handed to students entering the university. Later this instruction was given in the gymnasia, corresponding to our high schools. Now there is a movement to begin the work still earlier, so that the boys and girls leaving school at the age of fourteen may have an intelligent knowledge of sexual matters to act as a preventive against an indiscreet life.

Pellagra and Maize.—Stewart R. Roberts, S. M., M. D., of Atlanta, Ga., has given in a recent issue of the *Journal of the American Medical Association*, a brief account of Sambon's theory as to the causation of pellagra. According to this theory, it will be remembered, pellagra is not caused by the use of corn. Dr. Roberts has given some observations made by him in Georgia which confirm Sambon's theory. The writer believes that the theory that connects pellagra with the use of corn, either good or spoiled, will be completely disproved within a short time.

The Pure Food Investigation.—The Congressional investigation of Dr. Wiley, instigated by his enemies, seems to have acted as a boomerang, if the reports are correct. Evidence has been given that Solicitor McCabe, apparently the friend of the sodium benzoate interests, has in various ways nullified the action of the courts by falsifying documents, and has thus practically emasculated the pure food law.

Public Drinking-Cups in Colorado.—In order to render more effective the Colorado law abolishing the public cup, bubbling fountains have been installed in many places.

Pellagra in Kentucky.—The pellagra situation in this State has become so serious that a special meeting of the State board of health was called in August to consider preventive measures.

Pellagra in Tennessee.—A board of three inspectors, each assigned to one division of the State, has been appointed to lecture on pellagra in various localities, and to give personal instruction to local physicians in the detection and treatment of the disease.

Colorado State Dairy Law.—The new law forbids the use of preservatives, and the handling of milk in storerooms where oil, poultry, or vegetables are kept. The law applies to the man who milks only one cow as well as to more pretentious dairies.

New York Milk Must Be Pasteurized.—As it has been found impossible to insure the delivery of wholesome milk, gathered, as it is, from 44,000 farms in seven States, Dr. Lederle, the health commissioner, has directed that, beginning with Jan. 1, 1912, all milk delivered in New York City must be pasteurized. This excludes the "certified" milk which is under such control as to guarantee its purity.

A Temperance Breakfast.—The members of the British Medical Association were given a breakfast at the Grand Hotel, Birmingham, July 27, by the committee of the National Temperance League. The professor who presided spoke of the waste of money on alcohol and of its economic and moral effects, and mentioned at the same time other poisons which do much harm, notably tobacco. He declared that even tea, coffee, and cocoa are not without harmful effect. Dr. Arthur Evans showed how the consumption of alcohol lessens the resisting powers of the blood.

Medical Prescribing in Lay Papers.—In view of the fact that it is becoming customary for newspapers to publish, with the assistance of some regular physician, a column of "Health Hints," "Medical Answers," or some similar title, the British Medical Association in its representative body recently passed, by a two-thirds majority, a resolution condemning this use of lay journals by physicians. The reasons given are: Treatment without seeing a patient may be harmful; it may cause serious danger by postponing proper treatment; it may induce people to think that if medical men can treat patients at a distance, it is also possible for unqualified persons to treat them, and thus encourage one of the most cruel forms of quackery.

Nocturnal Street Noises.—The *British Medical Journal* states that the excessive and indiscriminate use of hooters, sirens, and exhaust whistles is a serious detriment to health.

Prize Essay on Alcohol.—Dr. L. D. Mason has offered a prize of \$150 for the best essay on "The Biological and Physiological Relations of Alcohol to Life," which must be the result of original research, and must confirm or disprove the present theories of the inherited effects of alcoholic degeneration, and indicate how far the defects of parents are transmitted to children. The essay must be typewritten, and sent to T. D. Crothers, Hartford, Conn., before July 1, 1913.

Anti-Smokers' League.—The Anti-smokers' Protective League, with its principal office in New York City, was recently incorporated for the purpose of enforcing laws and regulations to restrict smoking. Prominent in the movement are Dr. Harvey W. Wiley, Chancellor Day of Syracuse, Dr. Burt G. Wilder of Cornell, President David Starr Jordan of Stanford, and Dr. Winfield S. Hall of Northwestern. With the backing of men of that caliber, the movement to restrict the tobacco nuisance ought to make progress.

Medical College Graduates.—In 1880 there were graduated 3,241 physicians from all schools. In 1904 the number graduated was 5,747—perhaps the high-water mark. Ever since, possibly because of more stringent supervision of standards, the number has decreased, till last fall it reached 4,273. In 1880 there were for every 100 graduates, 82 regulars, 12 homeopaths, and 6 eclectics. In 1911 there were for every 100 graduates, 94 regulars, 3½ homeopaths, and 2½ eclectics. The homeopathic colleges graduated 380 in 1880 and only 152 in 1910. The reduction in the eclectic graduates has been from 188 to 110. The physiomedical have ceased to exist. This shows the trend of medical education.

Unpolished Rice and Beriberi.—The evidence being practically conclusive that the use of polished rice as a staple article of diet is the cause of beriberi, the attempt has been made to introduce unpolished rice, instead, into the Philippines. The rice machinery being made with the purpose of polishing the rice, it was found difficult to prepare an unpolished rice. By the new process, the smaller grains were left unhulled, and the hulls caused great complaint on the part of the buyers. However, it has been demonstrated that rice can be clean hulled without polishing it after the old style, and in the Philippines a heavy tax has been imposed on polished rice. This will doubtless limit the use of that article, and thus do away with the prevalence of beriberi.

Cocain Smuggling.—As cocain smuggling is becoming very prevalent in India, the Indian government will press strongly the cocain question at The Hague opium conference.

Wisconsin to Teach Preventive Medicine.—The University of Wisconsin, in cooperation with the State board of health, begins this fall a special one-year public health course for graduates in medicine and graduates in medical and sanitary science, leading to a diploma of public health.

Flying Sensations.—It is said that one in an aeroplane does not have such a giddy sensation as is caused by looking from a high roof. In the plane there is no sense of the distance above the earth. Even experienced airmen, who have no difficulty in the air, have the same old dizzy feeling when they look out of a high window.

Women Medical Students.—Women now seem to be turning their eyes away from the medical profession. In 1904 there were 1,129 women medical students in the United States; in 1909 the number was 921; in 1910 there were 907; and in 1911 the number was reduced to 680. About one sixth attend women's colleges; the rest, coeducational colleges.

Hookworm Wall Charts.—The United States Public Health and Marine Hospital Service has just issued a series of charts giving the life history of the hookworm, and details of prevention and detection of the disease. State health boards are using the charts in the campaign of eradication. The set may be obtained from the Superintendent of Documents, Washington, D. C., for three dollars.

Public Health Course.—The University of Cincinnati is to cooperate with the city health department in providing medical students a course of training in public health work. The upper-class students will be given the opportunity to do the actual laboratory work of the health department, such as examining milk; analyzing water; testing for typhoid, tuberculosis, and diphtheria; inspecting foods, schools, etc. In fact, they will be assigned all kinds of public health work, to be performed under competent supervision.

High Child Mortality.—The figures of the registrar-general show an alarming child mortality in London during the hot season this year. As expressed by one London paper, it was "the most disastrous to child life of any during the present generation." For the five weeks ending August 26, the deaths of children under one year were, respectively, 304, 462, 636, 705, 712, a total of 2,819; and of children from one to two years, for the same weeks, 73, 101, 138, 155, 143, a total of 610, or 3,429 children under two years old, an average of 98 a day.

Tuberculosis Lectures.—The New York Department of Health, cooperating with the committee on the prevention of tuberculosis, began on July 21 its fifth season of free stereopticon lectures on the cause and prevention of tuberculosis. The lectures are given in the parks and on the recreation piers.

Protection of Infants.—The Third International Congress for the Protection of Infants met in Berlin, September 11-15. Dr. Nathan Strauss was appointed a delegate to this congress to represent the United States government.

Loose Ice-Cream.—An investigation was made by the Boston Board of Health showing that much of the "loose" ice-cream served in dishes, cones, etc., contains from one million to fifty-five million bacteria per cubic centimeter. It seems probable that such high counts come from the use of containers which are never cleaned. It is suggested that a law compelling the sale of all ice-cream in original packages would remedy the situation.

Vegetarian Congress.—The two Saxon vegetarian congresses held a conjoined annual meeting at Dresden in connection with the hygiene exposition. The congress lasted from August 10 to 15. It was not possible to establish a vegetarian restaurant on the grounds, but there are three vegetarian restaurants in the city, two of them within easy walking distance of the grounds.

German Professor and Alcohol.—Prof. V. Gruber recently delivered an address at the international meeting of Good Templars, Hamburg, in which he took the position that alcohol, if a food, is expensive, wasteful, and harmful. Though it may produce heat by oxidation, it can not be considered a food, because it is a narcotic poison, benumbing the brain, even when taken in small quantities. After even a small dose of alcohol, the action of the muscles is much less skilful than when fasting. More muscles are put in motion, and energy is wasted. Moreover, alcohol is extremely expensive compared with an equivalent of food furnishing real energy.

Asphalt Cure for Tuberculosis.—It was noticed in Germany that consumptives taking positions in the asphalt works got well. This resulted in an extended trial by means of asphalt smoke, mixed with the smoke of benzoin and myrrh to counteract the disagreeable odor, in cases of tuberculosis and bronchitis. The results were extremely gratifying. There was a disappearance of cough, night sweats, and other bad symptoms, and an improvement in the appetite and general condition. Sometimes there was a marked increase in weight. The method has also given good results in whooping-cough.

Breakfast Foods for Germany.—The American consul at Erfurt has reported that vegetables are very high in that part of Germany, and that meats are expensive all over Germany. He believes a profitable trade might be worked up in table cereals.

Foods Destroyed.—As a result of the London strike, thousands of tons of foodstuffs, including meats, fruits, and vegetables, spoiled, and had to be destroyed. Some of the vessels containing foods stood loaded for three weeks. It is estimated that the tonnage of perishable goods in all the docks reached six figures.

Health in Capital Cities.—The table appended gives the figure for the second quarter of 1911 in each case:—

| | BIRTH-RATE PER 1,000 | DEATH-RATE PER 1,000 |
|----------------|-------------------------|-------------------------|
| London | 25.2 | 13.2 |
| Paris | 17.7 | 16.7 |
| Berlin | 20.3 | 14.9 |
| Vienna | 20.7 | 16.7 |
| St. Petersburg | 28.1 | 22.7 |
| Brussels | 16.7 | 12.2 |
| Amsterdam | 22.7 | 12.0 |
| Copenhagen | 25.4 | 16.2 |
| Stockholm | 21.8 | 14.3 |
| Christiania | 22.0 | 14.6 |
| New York | 26.3 | 15.4 |

During the quarter there was a natural increase of population in the United Kingdom of 128,867.

Employment of Children.—The new by-laws of the London County Council provide that no boy nor girl under 14 years of age, and liable to attend school, shall be employed for more than 3½ hours in any one day, before 6:30 A. M. or after 6:30 P. M., on days on which schools are open. On other days such children may be employed 8 hours in one day, but not before 6:30 A. M. or after 9 P. M. On Sundays a child under 14 may not be employed between 7 A. M. and 1 P. M. for a period exceeding 3 hours. No child under 14 years shall be allowed to work in a barber's shop. No girl under 16 and no boy under 14 shall be allowed to carry on street trading. No boy under 16 can trade in the streets before 6 A. M. or after 9 P. M. Boys under 16 years who do trade in the thoroughfares must wear "in a manner so as to be conspicuous" a badge showing he is licensed by the London County Council. These badges will be withdrawn if used for begging or other improper purposes, or if the holder fails to notify the London County Council within one week of any change in his place of residence. When boys receive these badges, they will be given a written document stating the conditions under which they have been granted. Theaters, music-halls, concert-rooms, and public houses are barred to street traders under 16.

A Chinese Medical School.—In order to teach the Chinese Western methods of hygiene and treatment, a medical school is to be opened in Shanghai, in February, 1912, under the auspices of the Harvard Medical School.

Wasps in England.—Flies are not so troublesome in England as in America, but wasps have been a veritable nuisance. They have been so destructive of the fruit crop that in some sections bounties have been offered for their destruction. A number of accounts have appeared in the papers of poison from wasp sting. In one case a motor-man was stung on the neck with such serious effect that he had to have medical attention.

Dr. Wiley's Friends.—The effort to dislodge Dr. Wiley has resulted in much adverse criticism of the doctor's enemies by the press. It is clearly understood that the effort was made on purely technical grounds, and from motives that would not bear ventilation. Nothing would suit the food-fraud men better than to have Dr. Wiley replaced by some one who could be entrusted to administer the law in a "safe and sane" manner.

Spinal Deformity.—At the British Medical Association meeting in Birmingham there was an interesting demonstration of spinal deformities (scoliosis) and the movements used for their correction. Ordinarily three months suffice to give the patient a good position, though it does not correct the bone deformity. A report was given of one thousand cases of scoliosis treated. The following had contributed to produce the curvature: Different length of legs in 19 cases, accident in 12 cases, eye-strain in 49 cases, playing violin in 46 cases, wrong writing position in 334 cases, badly and tight-fitting clothes in 946 cases. In most of the cases it was found impossible to benefit the patient until the clothes had been altered. Nine tenths of the patients were under the age of twenty-one.

The Cause of Caries.—One physician and health officer at the Birmingham meeting urged the necessity of paying more attention to the food as a cause of tooth decay. He believes carbohydrates, especially sweets, are responsible for the decay of teeth. He urges that no sweets be eaten between meals or at the close of a meal, but that they be followed by the use of some food requiring chewing, such as raw vegetables, etc. He does not believe that the tooth-brush—however essential it may be to decency and self-respect—is essential to health. His opinion is that the coarse foods will sweep out the decay germs much more completely than the tooth-brush, and that the latter if used over long periods without renewal of brush, may cause infection followed by pyorrhea. The ordinary pastes and powders do not render the brush antiseptic.

French Vegetarian Society.—This society, which in 1889 had 124 members, now numbers 710 members, with 657 associates. During the past year 108 new names were enrolled.

England's Consumption of Tea.—It has been officially announced that for the year ending June 30, 1911, 288,503,000 pounds of tea were cleared for home consumption. From India 164,456,000 pounds, or more than half that amount, were received. One-half pound of tea a month for every man, woman, and child is "going some," to use the street phrase, but this does not equal the tea consumption in some countries.

Sugar and Tooth Decay.—Mr. A. Hope-well-Smith at the Birmingham meeting said that the abuse of sugar, which in itself is one of the most wholesome foods, is one of the important causes of dental decay. He finds candies to be adulterated with dyes, some of them harmless, but some, such as copper, zinc, arsenic, etc., are decidedly harmful. Among other impurities he mentioned clay, sand, fiber, and ground nut shells. Then there are the purely vicious adulterations, such as spirits, as much as twelve per cent, and chloroform, from one to two per cent. The use of such confections can not fail to be decidedly harmful.

Strike Evils.—During the Liverpool strike the death-rate increased to twenty-seven per thousand—nearly double the rate for the corresponding period last year, owing to the large number of infants who died because their parents were unable to buy them proper food.

We Used to Call Them Dudes.—A West End (London) beauty specialist stated recently that men are now more lavish in their expenditures on personal beauty than women. He asserts that in addition to the bills for perfumes, manicure, chiropody, mouth washes, etc., sometimes amounting to hundreds of dollars for one man, men take treatment from beauty specialists for the removal of warts, for blue skin and red nose, and have injections of artificial coloring under the skin. And this is only part of the list.

Tooth-Brush and Decayed Teeth.—An investigation by biometric methods, to determine the correlation between failure to use tooth-brush and tooth-decay, failed to reveal any direct connection. As the result of an examination of a thousand children, more than thirteen years of age, in whom the habits of mouth-cleanliness were ascertained, and also the number of caried teeth, it was determined that while the use of the brush may be useful as a cosmetic or esthetic measure, it does not prevent tooth-decay.

The best antiseptic for purposes of personal hygiene

LISTERINE

Being efficiently antiseptic, non-poisonous and of agreeable odor and taste, Listerine has justly acquired much popularity as a mouth-wash, for daily use in the care and preservation of the teeth.

As an antiseptic wash or dressing for superficial wounds, cuts, bruises or abrasions, it may be applied in its full strength or diluted with one to three parts water; it also forms a useful application in simple disorders of the skin.

In all cases of fever, where the patient suffers so greatly from the parched condition of the mouth, nothing seems to afford so much relief as a mouth-wash made by adding a teaspoonful of Listerine to a glass of water, which may be used *ad libitum*.

As a gargle, spray or douche, Listerine solution, of suitable strength, is very valuable in sore throat and in catarrhal conditions of the mucous surfaces; indeed, the varied purposes for which Listerine may be successfully used stamps it as an invaluable article for the family medicine cabinet.

Special pamphlets on dental and general hygiene may be had upon request.

LAMBERT PHARMACAL COMPANY
LOCUST AND TWENTY-FIRST STREETS :: ST. LOUIS, MO.

Revival of the Picnic.—The unwonted sunny weather caused in England last summer a revival of the old-time picnic and outdoor luncheon.

Tea in Great Britain.—Great Britain consumes daily about 600,000 pounds, or 4,000,000 gallons, of tea, more than all the rest of Europe put together. This amounts to more than six pounds a year for every man, woman, and child.

Eradication of Beriberi.—By the substitution of sixteen ounces of undermilled rice for twenty ounces of polished rice, and a legume to make up the deficiency in quantity, remarkable results have been obtained in the Philippine Islands in the eradication of beriberi.

First Aid to the Motorists.—An enterprising London store makes a specialty of lunch hampers for motorists. These are sent to various points along the route laid out by the motor party, so that there may be no difficulty in obtaining the right kind of victuals in out-of-the-way places.

Preventive Medicine.—Sir James Barr, of Liverpool, at the Canadian Medical Association meeting, stated emphatically his view that the practise of the future will be largely preventive. He pointed out that modern preventive methods are keeping alive many of the "unfit," who under older methods would have succumbed. This, while of great advantage to the individuals concerned, he thinks a disadvantage to the race. He believes the physicians of the future will be placed under the necessity of encouraging the multiplication of the fit, and discouraging the multiplication of the unfit.

London Water Germicidal.—There is no need of a typhoid scare in London; for the recent report of the Metropolitan Water Board contains a report of the director of water examination, who learned by experiment that the typhoid germ can not survive in raw Thames water. He placed germs from a "carrier" who had already infected at least forty persons, in samples of raw Thames water, and the bacilli died within two weeks. He made a further test, taking half a pint of Thames water to which he added 218,000 typhoid bacilli. At the end of twenty-four days he drank this water without result. He is satisfied that if the Thames water is stored for a sufficient time before being served to the city, all danger of typhoid will be obviated.

Dangerous.—Three Manchester tobacco-nists have been fined for selling penny cigars in which explosives were concealed. It was felt that the danger to the smoker was sufficiently great without the explosives.—*London Evening Times.*

Tobacco Defined.—At a recent able discussion regarding the merits of tobacco, one of the speakers defined tobacco as "a green leaf consumed by a green worm and by man. The worm does not know any better." Man might be supposed to know better; but if so, he knows better than he does in many instances.

Seaside Drill.—At Hastings, an English seaside resort, a physical culture drill was established for the youngsters, which proved to be the "biggest hit" of the season. One hundred fifty children in bathing costumes took part in the drills on the beach, where there is several acres of smooth sand well adapted to such work. Sometimes as many as five thousand people assembled to watch the drill. Prizes, given for the best work, added much to the interest. Parents testified that the drill greatly improved the physical condition of the children.

Too Faithful to Drugs.—A South Kensington civil engineer, aged forty-seven, who was troubled with gout, and who had a mania for studying the effects of drugs and for taking "every drug imaginable," recently took a little too much morphin; and the coroner's jury returned a verdict of "death by misadventure." When he realized that he had taken an overdose of morphia, he took a dose of strychnia as an antidote, but it availed not. If a man has a mania to experiment with drugs, he shows an unselfish spirit to experiment on himself.

Report of the International Plague Conference.—The interim report of this conference states that in the recent plague epidemic in Manchuria and China, practically all the victims suffered from the pneumonic, or septicemic form. There were none of the bubonic type, most frequently met in plague epidemics. It is now believed that the epidemic started from a species of small fur-bearing animal prevalent in northeastern Asia. This animal is extremely subject to plague. Other animals did not appear to be affected during the epidemic. It was certainly not a rat-borne epidemic, the infection in all cases being traced to human victims.

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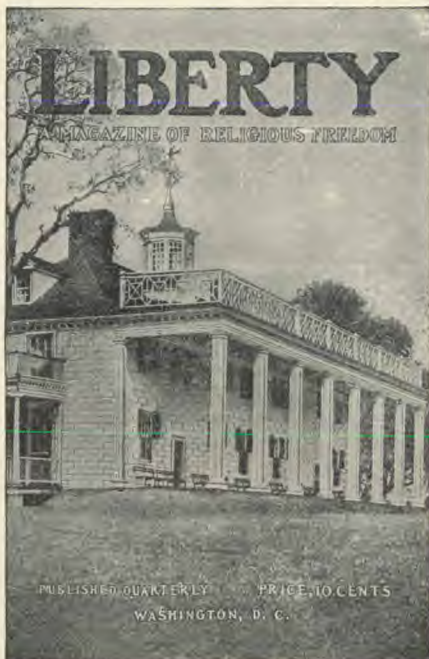
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