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# LIFE AND HEALTH

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**August, 1907**

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"Something better is the law of all true living."

Vol. XXII Takoma Park Station, Washington, D. C., August, 1907

No. 8

## Take an Antidote

BENJAMIN KEECH



IF some foolish person has had the audacity to poison you, and you are suffering terribly over it, hasten to relieve yourself with some pain killers and restoratives. Too, if you have been poisoning yourself, hurry to do and take something that will make you feel better. For nearly every poison that enters the system there is a helpful, healing antidote, which, if taken freely, once every minute, will drive away the aches, and effect a charming cure. The following list of poisons and antidotes will undoubtedly prove very beneficial:—

Unkind gossip is a frightful poison. If you listen to it long enough, it will cause no end of pain. When the lady and gentlemen poison dispensers come your way, and pour forth a malicious tale concerning some poor, unfortunate soul, and succeed in making you imbibe some of their mischief, take a large dose of common sense, mixed with kindness, charity, and fair thinking. Thus you'll kill the bad germs that you've "swallowed," and your thoughts will remain sweet and clean.

Often, too, a little prevention is worth several pounds of cure. When the poison ladies and gentlemen, above mentioned, arrive, firmly raise up, round your mind, a barrier of wisdom and common sense, born of past experience; and absolutely resist "taking" anything from them.

However, if you are already badly inoculated and don't know how to find relief, let me suggest that prayer is one of the leading antidotes, if not the very best, for all sorts of poisons. If, unknown to yourself, your friends have been poisoning you, and your mental system has become sadly deranged, just get down on your knees, lift up your head and pour out your heart in earnest prayer until you feel inwardly clean and refreshed. Then get up, and relying upon the Lord, refuse to be poisoned any more.

If you have been reading poisonous literature that has affected your mind, conscience, and soul, burn all such trash as you can find, and read your Bible and other uplifting books. This antidote will have a pronounced rejuvenating effect on any one, either

poisoned or unpoisoned. Good literature, preferably sacred, is a mighty cleaner, restorer, and upbuilder.

Read as much as you can conscientiously digest. Do this always, but especially when the melancholy influence of loneliness begins to sadden your being. Books are often better companions than people; and sometimes when we feel pained and bad without any evident cause, the balm of a chapter or two from some great mind will make us stronger for life's battle. The right kind of reading is indeed a general antidote for the entire list of poisons.

If there are pictures on your walls that you think have been poisoning any one, remove them, and replace with prints and paintings that you know are all right. This act will undoubtedly remove from your chest a certain sad ache, the meaning of which you were never sure. Gospel mottoes, placed here and there in a room, have a very good effect on any one. Buy a large number of them, put a few in every room in the house, and help the good cause along.

If certain foolish, popular songs strike you as being poisonous, don't sing them. Sing hymns, instead. What is more cheering and inspiriting in the right direction than "There's not a friend like the lowly Jesus," "Bring them in," "Throw out the life-line," "I am thine, O Lord," "Will there be any stars in my crown?" and dozens of others? The possessor of a good, strong, true, sympathetic voice is to be envied and congratulated. Such a one can, by spending considerable time in singing and whistling hymns, do much more good than he may imagine. Sacred songs have a decidedly uplifting effect (often unconscious) on any one who hears them. They are a powerful antidote for the poisons of the world.

Whenever you see or hear anything bad—it doesn't matter where—that pains your heart and poisons your happiness, reflect that many good things are happening at the same time. God still rules in this world. Remember that. And, when you are inclined to let pessimism poison "the sweetness of your days," scare it away with some optimism and good cheer. You have a right to be happy. The Lord does not desire you to be otherwise. Because you are sensitive and can not help but know that there is evil on earth is no reason that you yourself are evil. Far from it! So don't let *any* unworthy thought poison the sweetness of living.

By the way; the antidote for senseless sensitiveness is spiritual sense. Love, purity, cleanliness, and holiness can accomplish wonders.

When, on dull, bleak, cloudy days, you notice the poison of morbidness and melancholy entering your system, rouse heartily to do something to cheer yourself. (Indeed, even though perfectly well, you ought to imbibe largely of the antidote of good cheer. You can not get too much of it.) When you begin to feel bad, take a pair of scissors and cut from the nice old papers and magazines that you have previously collected, all helpful articles, poems, etc., that appeal to your finer nature. You may come across one single, grand paragraph that may help you more than you have any idea. Save your clippings in a book.

Another first-class antidote for gloomy, lazy days is to answer the neglected letters of your friends. O, the good that a letter may do!—the inspiriting brightness, the uplifting cheer, the helpful encouragement it may contain! Use great care not to mix any gloom or melancholy into your letters. However, if you happen to forget and enclose a little poison, promptly counter-

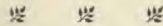
act it with some opposite wisdom. One knowing woman generally encloses an uplifting poem, article, or paragraph, clipped from some periodical, in letters to her friends.

Laziness is one of the meanest, most despicable poisons to which any one can yield. It has the effect of a narcotic; the more one absorbs, the more he desires. And although seemingly pleasant at first, the fruits of laziness are painfully bitter. To look back at a wasted, unimproved life must be about the worst punishment that any one can attract. If you are yielding the least bit to this popular poison, go to work at once, and stay to work the rest of your life.

Good, profitable, paying labor, preferably for God and humanity, is a pow-

erful antidote and cure for more poisons than laziness. Lacerated hearts, seared consciences, storm-beaten souls, deformed minds, and most bodily ailments will all lose their grip and give up when assailed by the right kind of work, well and conscientiously done. Persons suffering from any sort of poison will lose their pains quicker by laboring out of doors.

Pure air is a force that will clear and clean your being so that other antidotes can have a better chance to work. Frequently inhale all the air your lungs can hold. Then take some more. At the same time, if our bodies are soured and poisoned by the demoralizing kinds of food, we must first, before we can secure any permanent relief, try the antidote of a different dietary.



## Grains or Meat

THOMAS A. DAVIS



THE Indians of the interior of Ecuador are noted for their great strength and endurance. Women as well as men carry on their backs from one to two quintals [a quintal is a little more than two hundred pounds], not for a block or two, but for leagues.

The almost exclusive diet of these people is *machica*, or toasted barley meal. This they eat dry, without salt or sugar. The writer has tried it, and found it very toothsome after one gets accustomed to keeping the meal in the mouth until it is wet enough to swallow. The Indian uses no spoon to eat this meal, and has formed such a habit of throwing the meal into the mouth with the hand that hardly a mite is lost.

Small children who have not become adept can be seen with the meal sticking on their faces almost to their eyes.

During fruit season the diet is changed somewhat, as a large amount of wild cherries is eaten with the *machica*. While the cherries last, the Indians can be seen all over the country, picking them to eat or to sell. For five cents silver, enough can be bought in the market to supply a large family. Occasionally they mix in their bill of fare a few potatoes and a kind of lentil which is very rich in oil.

While the white race here use considerable meat and liquid foods, and consequently give employment to the doctors with their many drugs, the Indian, although uncleanly and irregular with his meals, keeps his body sound.

# THE CONSULTING ROOM



Conducted by J. R. Leadsworth, B. S., M. D., 257 South Hill St., Los Angeles, Cal.

## Typhoid Fever

MR. V. Seen at bedside after two days of headache, disordered digestion, nosebleed, sense of chilliness and fever, tongue coated and breath foul, and bowels loose. Patient was a young man of twenty-two, active and strong, but had exercised no care relative to diet and keeping regular hours. The fever record showed slight rise in the morning, with an elevation of two degrees in the afternoon. As the disease progressed, the fever continued to creep up until at the end of a week the afternoon temperature was  $104^{\circ}$  or  $105^{\circ}$ : diagnosis, typhoid fever. Being unwilling to go to a hospital, a large, airy, sunny room was made ready by having all carpets, drapery, and curtains removed. A plain iron bed was provided, with oilcloth over the mattress for protection from body excretions or careless water applications.

Perhaps, the first requirement for successfully managing a case of typhoid fever is a well-trained, conscientious nurse. As Dooley said, in discussing the relative merits of Christian Scientists and physicians, "If the doctors had more Christianity and the Christian Scientists had more science, a person would get well anyway, providing he had a good nurse." This is particularly true of typhoid fever.

In this case, we will instruct the nurse to avoid, so far as possible, the routine milk diet, which is often responsible for bad breath, and for the continued foul discharges from the bowels. Often it

gives rise to intestinal fermentation, with bloating and other distressing symptoms. The almost continuous fever burns largely at the expense of the muscular system, so it will be necessary to compensate for that by supplying food at regular intervals, and as liberal as consistent with the lowered digestive action; in addition we will use every rational means for keeping the fever down.

## A Preventable Disease

It has been well said that for every death by typhoid fever, some one ought to be hanged. In fact, if the cause were always known, it would be found that every case is due to the carelessness of some one. The microbes responsible for this disease invade the small intestine near the colon. To reach this area in the digestive canal, it is necessary that the germ should pass through the stomach—at least this is the usual channel of infection. In almost every case, it will be found that, as in the case under consideration, there is a previous foul condition of the stomach existing which destroys the germicidal properties of the gastric juice. This enables the germs of infection to reach their special place of election, and the decomposing food also furnishes ideal conditions for their multiplication.

## The Cause of an Epidemic

Doubtless, the most common medium of infection is polluted drinking water; and as showing the criminal carelessness of those attending a typhoid case,



Dr. Osler gives an account of an epidemic that occurred in Plymouth, Pa., some years ago. The town, with a population of eight thousand, was in part supplied with drinking water from a reservoir fed by a mountain stream. During January, February, and March, in a cottage at a distance of about eighty feet from this stream, a man was ill with typhoid fever. The attendants were in the habit, at night, of throwing out the bowel discharges on the ground toward the stream. During these months, the ground was frozen and covered with snow. In the latter part of March and early in April, there was considerable rainfall, and a thaw in which a large part of the three months' accumulation was washed into the brook. At the time of this thaw, the patient had numerous and copious discharges. About April 10, cases of typhoid fever broke out in the town, appearing for a time at the rate of fifty a day. In all, about twelve hundred persons were affected. A large majority of all the cases were in the part of the town which received water from the infected reservoir. Think of the homes invaded by this epidemic, the untold suffering, the inevitable death of many, to say nothing of the loss of time and means; and all because of the carelessness of the attendants in one case.

A number of epidemics of typhoid have been caused by polluted milk. This may be from washing the cans with infected water, or from the watering of milk by unscrupulous dealers. At this time of the year, when the germs are so much in evidence, the chances for infection would be materially lessened if nothing but boiled water was drunk, and all milk used was sterilized.

Frequent outbreaks of the disease have been due to the ingestion of raw fruits which develop in contact with the soil. This is especially true of strawberries, which may be infected by means of the

fertilizer used, or, as is sometimes the case, where they are irrigated by waste or sewer water.

#### **An Unsuspected Cause**

To many, it will doubtless cause surprise to learn that one who has had typhoid fever may for an indefinite period continue to be a carrier of the disease, and hence a menace to the health of those who are closely associated with him. Professor Metchnikoff relates an instance in point where a woman forty years of age, proprietress of a bakery, suffered from typhoid fever ten years before. In the last few years, she noticed the fact that almost all her employees and apprentices, soon after entering her service, began to suffer from more or less grave digestive troubles. One of them contracted a very severe attack of typhoid, and died in the third week of his illness. About a year after, a second fatal case of the same disease occurred in another employee of this bakery. These occurrences aroused the suspicions of the medical officer, and he raised the question whether the woman might not be a carrier of the typhoid germ. Bacteriological examination of her bowel discharges fully confirmed the suspicion. It was proved that she often excreted a great number of the specific bacilli typhosi. This fact readily explained the infection in persons who were in the habit of taking their meals at the baker's shop, whose food was prepared by the proprietress herself, and who had to use the same closet as herself. This case is interesting as affording proof of the power of the typhoid germ to retain its virulence in a body, the previous attack having produced a temporary immunity, which, in this case, had lasted ten years.<sup>1</sup>

When it is known that the colon bacilli, the germ naturally inhabiting the lower part of the intestinal canal in man, are inert and inactive

#### **Value of a Fleshless Diet**

so long as the intestinal contents are free from flesh products, but become highly virulent under a diet mixed with flesh, it would seem that the same principle would hold good relative to the bacilli typhosi. At any rate, it would seem that a clean dietary of grains, fruits, and nuts would afford very little of the decomposing proteid residue, which is the necessary culture media for most disease-producing germs. By subsisting upon such a diet, and keeping the eliminative organs thoroughly active, we would be willing to take the risk of ridding the system of any germs left after a previous attack of typhoid fever.

#### **Treatment of Discharges**

In nursing a typhoid patient, it is highly important that the body excretions should be thoroughly disinfected, and then burned or buried. Only by such radical measures will the active avenues of infection be cut off. An excellent disinfectant is corrosive sublimate,<sup>2</sup> a teaspoonful to the gallon of water, with the same amount of citric acid. The bowel and kidney discharges should stand in a solution of this for several hours, and then be buried in a deep hole. All bed linen and nightclothes in contact with the patient should be soaked in a solution, as above, before being sent to the wash.

#### **Feeding the Patient**

In addition to buttermilk as an article of diet, might be suggested malted milk or malted nuts, gluten gruel, fruit juice. Not a few physicians now recommend that all solid food be not withheld, as was formerly supposed to be necessary. By sitting by the patient and insisting upon the thorough mastication of every mouthful, no more objection could be offered to solid food than that taken in liquid form. It should be remembered that very little digestion and absorption takes place while the fever is above 102°. At the same time, the continued fever makes marked inroads upon

the patient's strength. It will be seen that a prominent indication for treatment is the use of every agent that will combat the fever with the least possible wear on the patient, and, at the same time, keep up nutrition as high as consistent with the debilitated system. The patient should be fed at regular intervals, say every two or three hours, and not over a teacupful at a time. In order to hasten stomach digestion, the hot compresses applied over the stomach for twenty minutes after eating is an excellent agent.

#### **Care of the Intestines**

Referring again to the fact that the small intestines adjacent to the appendix are involved, it will appear at once desirable to keep the bowels more than ordinarily free and active. It is out of the question to think of giving disinfectant remedies by mouth sufficiently strong to destroy the germs in the intestinal canal. Such agents would also be destructive to the vital tissues of the body. Neither is it possible to reach their habitat by injections. But, by keeping the bowels open and free from 'decomposing waste' residue, almost as much can be done toward combating the symptoms of toxemia and high fever. Castor-oil, taken at regular intervals, is excellent for this purpose. Epsom salts may be substituted, and given the same way in small repeated doses. Fruit juice is an excellent intestinal disinfectant, while the juice of the grapefruit, taken once or twice a day, is an excellent tonic, and is to a certain extent germicidal as well.

#### **Control of Temperature**

Most important is the use of agents that will keep down the temperature with a minimum amount of heart depression. Foremost among these is the skilful application of water, just plain water internally and externally. So many and varied are its uses that it is difficult to select even the most effectual procedures, so we can mention only a few. Cool or

cold sponging is commonly used, but, to be of advantage, this procedure must be repeated frequently and persistently until the temperature starts downward. Almost equally effective are the cold compresses extending over the chest and abdomen. These should be changed every four or five minutes, and continued for a half or three fourths of an hour, and then, with the patient lying upon his face, the same applications may be given to the back. If, in spite of these methods, the temperature persists in going up, the cold injections, repeated two or three times if necessary, will likely have the desired effect. Strenuous efforts should be put forth to keep the temperature below 102°. An ice-bag should be kept over the right groin for an hour at a time, and, after an interval of half an hour, should be reapplied.

**Suggestions** Where symptoms of depression and prostration develop, hot and cold applications to the spine at three- or four-hour intervals are excellent. The mouth and tongue should be thoroughly gone over with a tooth-brush daily. In the absence of other disinfectants, lemon juice is excellent for this purpose. The windows should be kept wide open, and without shades and curtains, to permit the freest possible circulation of air and sunshine. In mild cases, the height of the disease is reached in one week, after which there is a gradual decline of all fever symptoms. In more severe cases, the disease seems to gather force for two or three weeks,—sometimes even more,—and in these cases every precaution will need to be taken to conserve the strength and vitality of the

patient. To this end, the patient should not be permitted to get in and out of bed. By propping the upper part of the trunk up well with pillows, a bed pan can be used for all purposes that would necessitate getting up. Attention to these details and such others as will suggest themselves in the care of every case will not only give positive assurance of recovery, but will give promise of limiting the spread of the disease.

❦

**Not Forgetting the Physical**

The boy on the farm who is out of bed by five in the morning, and spends two hours in feeding stock, milking cows, and then, after a plain, hearty breakfast, walks two or three miles to the little red schoolhouse, is far better equipped for the battles of life, with even a moderate education, than is his more favored city cousin who goes through the university. The former is capable of putting to good use all he has learned, while the latter is handicapped by almost every variety of ailment.

<sup>1</sup>A similar case occurred recently on Long Island, N. Y. Typhoid fever occurring in a family, and no other possible cause being discernible, the domestic was suspicioned. Investigation showed that for several years past, wherever she was employed, typhoid fever would soon develop in the family. Bacteriological examination of her discharges showed the presence of large numbers of the bacillus of typhoid.

<sup>2</sup>Corrosive sublimate corrodes vessels made of metal. For this reason, it is best to use a porcelain or glazed-ware vessel if corrosive sublimate is used.



"But unto you that fear my name shall the Sun of righteousness arise with healing in his wings ["beams," R. V., margin]." Mal. 4: 2.

Conducted by Augusta C. Bainbridge, 612 Tenth Ave., Station M, San Francisco, Cal.

## Jesus the Healer

### 16 — The Leper



WILL: be thou clean." Luke 5: 13. Jesus came to do the will of him that sent him. We know he was sent of God, therefore it was God's will that this leper should be healed. Just at this point of willingness, the ignorant leper stumbled. He did not know God's purpose for his body.

"Seeing Jesus." Often when the hearing of the ear has done its part, and the mind is in a receptive state, ready to learn more, then comes the seeing of the eye, which, in its turn, leads to mental sight, and often conviction. This was the order, or line of march, the Master used in leading this poor leper into the light. He had heard of Jesus; then when sight was granted, the man recognized the Lord. He walked in all the light he had. He owned his Lord's power, and confessed his own need.

"Lord, if thou wilt, thou canst make me clean." What a claim on creative force, yes, on the Creator himself, who lovingly regards the object of his care.

"Put forth his hand, and touched him." Here again we see the hand used as the vehicle of blessing. The same law-giver who forbade any one to touch a leper, now, under other conditions, under

other circumstances, puts forth his own hand, carrying healing and strength to the unclean one.

"I will: be thou clean." These are the words of Jesus himself,—no word of man, no implication, no side interpretation, but a clear, definite statement, "I will;" this is my will, my intention, my purpose. All of might, strength, and ability the poor leper already accepted by faith, but his limited knowledge of the will of God hindered his belief in his willingness to heal him. "My people are destroyed for lack of knowledge," is just as true to-day as at any time in the history of fallen man. God's people do not know that he is their healer. They do not read the Word, or reading, do not accept it as for them. Was this the only leper Jesus was willing to heal? Is he really an arbitrary acceptor of persons? Is leprosy the only disease Jesus is willing to cure? Standing related to other diseases as it does, we might say that leprosy covers all other diseases; and when Jesus said "I will" to the leprous one, he said "I will" to every other man or woman afflicted with any physical uncleanness. All uncleanness of the body is sin, and the result of sin is death. Transgression of physical law leads inevitably to disease and death. There is only one who pardons sin. There is only

one Redeemer. There is only one who came to seek and to save lost health, lost vitality, lost bodies, as well as lost souls. He is willing to do it. He *wills* it; and when we enter into that willingness, we are ready to hear the next sentence, "Be thou clean." No other thought than cleanness, soundness, wholeness, and all these imply, could have a place in the will of the Creator for his creatures; and when we are sick, we are simply outside and away from the will of God. Knowing his will to be holy, just, and good for every organ and function of the body, as truly as for every item, yes, even every jot and tittle, of the moral law, may we not enter into one as fully and freely by the blood of Christ, the atonement, as we enter into the other?

Where in the Word, the precious Word of God, do we find them divided?—Nowhere. But we do find them united again and again, as in Ex. 15:26. "If thou wilt diligently harken to the voice of the Lord thy God, and wilt do that which is right in his sight, and wilt give ear to his commandments, and keep all his statutes, I will put none

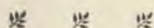
of these diseases upon thee, which I have brought upon the Egyptians: for I am the Lord that healeth thee." Read Ps. 103:1-3.

So in the will of God, cleanness, wholeness, perfect health, must ever be united with obedience to his law. This means a forsaking of sin (disobedience), and changing our habits of living, our lines of thought and action, into harmony with that law. Could Jesus see just such a willingness in the heart of the leper, when he gave the glorious command that sent the life current through the otherwise dead body?—It must be, as he sent the healed man to the priest, "for a testimony unto them."

*"Fools because of their transgression,  
And because of their iniquities, are afflicted.  
Their soul abhorreth all manner of meat;  
And they draw near unto the gates of death.  
Then they cry unto the Lord in their trouble,  
And he saveth them out of their distresses.  
He sendeth his word, and healeth them,  
And delivereth them from their destructions."*

*Ps. 107:17-20.*

Whatever our disease may be, there is only one healer, and he heals all who come to him in faith. Wherever our pain, just there this faithful sentinel is telling us of our departure from the pathway of life, and calling us to return. When we by faith walk in all the light we have, we may confidently look for more light. Just as this leper expressed his faith in Christ's power, and then the knowledge of his will was made clear, so none need abide in darkness or disease.



CHRIST "healed all manner of sickness and all manner of disease among the people." The power and privilege of healing in his name, he then gave to his disciples, as a part of his gospel, and distinctly promised that it should continue wherever that gospel was preached. Both

earlier and later apostolic teaching confirm and continue that promise. The redemption of the body, therefore, is so far realized on earth as to effect deliverance from sickness as definite and complete as the deliverance from sin.—*Marsh.*

# HEALTHFUL COOKERY



## AND HOUSEHOLD SUGGESTIONS

Conducted by Mrs. D. A. Fitch, Glendale, Cal.

### Fruits and Fruit Canning

MRS. D. A. FITCH

MANY, if not all, ripened fruits may be eaten uncooked, but since they do not continue through the year, we wish to preserve them for use at such times as they can not be obtained fresh. This may be done in various ways. Fifty years ago there was the choice of only two common methods, drying and making "pound-for-pound preserves." This latter method requires so much sugar that it should be ignored.

Many dried fruits are in the market, but they are open to at least two objections. They are usually sulphured to improve their appearance, and are exposed to dust and flies, if to nothing worse. All dried fruit should be washed before cooking. We question the cleanliness of an individual who can not pass dates, figs, or raisins without lifting one to the mouth regardless of the condition.

Fruit dried at home should be carefully protected from dust and flies, and be thoroughly heated before storing, that the eggs of insects may be destroyed. Treated thus, and packed in strong paper sacks, it will keep for months.

In these times of improved methods, canning fruit is the most popular method of preservation, and it seems scarcely

possible there can ever be any better, unless it were that access might be had to the fresh article the year round. A long chapter might be written on this important subject, and then not exhaust it, but the scope of this journal will not admit of it.

Different methods are employed, according to kind of fruit, locality, etc. Frequently much more sugar is used than is necessary. We are told by those who have made a study of sugars, that boiling sugar with acid fruit, changes it to invert sugar, thus lessening its sweetening properties two and one-half times.<sup>1</sup> But you ask, "How can it be done without cooking together?" The answer is simple. Make a sirup in one kettle, and cook the fruit in another, and combine them just as they are to be put into the jar, or, better still, put in some

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<sup>1</sup> Boiling with acid, though it lessens the sweetening power, *does not* diminish the nutritive value of the sugar, but *does* lessen its power to irritate the stomach walls. Considered in its actual nutritive value, the sugar is the cheapest part of the canned fruit; that is, in cities where fruit must be purchased, ten cents' worth of sugar contains more actual nutriment than ten cents' worth of fruit.—ED.

fruit, and then the required amount of sirup. A few movements of the jar will mix them.

Always choose the best quality of fruit. It should be washed sufficiently to remove all sand and dust. Slow cooking is much better than rapid boiling, though it should reach the boiling-point just before canning. The boiling temperature at sea-level is  $212^{\circ}$ , but in high altitudes it is several degrees lower, so greater care must be taken to keep the fruit from spoiling. One good way to do this is to re-cook it once or more on as many successive days.

The amount of sugar necessary for palatability does not materially aid in the keeping of the fruit. The writer has canned many quarts of fruit without a grain of sugar. Sugar may be added a few hours before the meal, and thus can room is economized. Moreover, sugar is usually less expensive in winter than in the height of fruit-canning season. Large jars are more economical than small ones, though a few of the latter are needed for the re-canning of what may be left from the large ones.

A fruit funnel is a convenience, and granite is to be preferred. It is well to set the jar on a wet, folded cloth in a broad but shallow pan. In case of a "spill" or a cracking can, there need be little waste. Be cautious about fragments of glass.

There are steam cookers in which the jars filled with the fresh fruit may be placed, and the fruit gradually heated to a thoroughly cooked condition, when the sirup may be added, and any deficiency be supplied from another jar. A common wash-boiler, covered wash-tub, or two dish pans, one as a cover, answers the same purpose if cloth be laid in the bottom and between the jars to prevent breakage. Not much water is required in these vessels, but it must be gradually heated after the jars of fruit have been

placed in it. Be careful not to expose the hot jars to drafts. It is well to replenish the jars while in the water, seal them, and let them stand until partially cooled. The steaming or boiling may be done with the rubbers in place, and the covers lightly laid on. If old ones are used, they should be critically examined to determine whether they are well fitted to the work. Any uneven cover edges may be pressed to the jar by using something like a knife-handle, running it round and round. To make sure there is no leak, invert the jar of fruit on a clean dry shelf to remain until cold. If any juice exudes, attention should be given it. Should there be a *foamy* appearance, be sure there is a crack or other break somewhere, but do not be anxious about *bubbles*, for they are only "air," and that is sterilized if the work has been properly done.



### Tomato Canning

MRS. D. A. FITCH

PROBABLY no fruit is more abundantly canned than tomatoes, and they *do* supply a place not held by all fruits. Peeled, sliced, and canned in the ordinary way, they are excellent, and every household should have an abundant supply. Tomatoes in glass are much superior to those in tin cans. If tins must be used, the fruit should be removed from the can immediately on opening. Acids and tin do not make a favorable combination.

Try this method of preserving tomatoes: Thoroughly wash, and remove all imperfections. Cut in two or three pieces and cook, adding little or no water, until just soft enough to pass through a colander or sieve, which will retain the skins and seeds. Return to the stove, boil for a few minutes, and put in jars. Large bottles with well-fitted corks answer an excellent purpose if closed with sealing-wax. Occasionally the cork may be

(Concluded on third cover page)



Conducted by Mrs. M. C. Wilcox, Mountain View, Cal., to whom all questions and communications relating to this department should be addressed.

### Life's Mirror

THERE are loyal hearts, there are spirits brave,  
 There are souls that are pure and true;  
 Then give to the world the best you have,  
 And the best will come back to you.

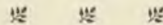
Give love, and love to your heart will flow,  
 A strength in your utmost need;  
 Have faith, and a score of hearts will show  
 Their faith in your word and deed.

Give truth, and your gift will be paid in kind,  
 And honor will honor meet;  
 And a smile that is sweet will surely find  
 A smile that is just as sweet.

Give pity and comfort to those that mourn;  
 You will gather, in flowers, again  
 The scattered seed from your thoughts out-  
 borne,  
 Though the sowing seemed in vain.

For life is the mirror of king and slave —  
 'Tis just what we are and do.  
 Then give to the world the best you have,  
 And the best will come back to you.

— Madeline S. Bridges.



## Is the Hour for Worship in the Home Made Attractive to the Children?

MRS. M. C. WILCOX

WE need not pray, "God bless the home," when especial attention is given to this feature of the program; for we know that his blessing *will* be there. Our Saviour was once a child himself. He knows the nature of a child. *He* has not forgotten how it seems to be a child, although many human beings seem to have forgotten. He says, "Except ye be converted, and become as little children, ye shall not enter into the kingdom of heaven."

The hour for worship is one of the

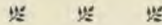
most opportune occasions for sowing seeds of truth and teaching faith in God, while the children are young, unoccupied by cares and perplexities, and while their memories are keen and receptive, teaching them all the fundamental points of the Christian religion. If presented to them in an inspiring, attractive way, they will drink it in as a sponge drinks in water. It is an appropriate time to discuss the Sabbath-school lesson. It may be gone over with profit each day, especially while the children are quite young.



It is simply wonderful how quickly the children will learn to read from the Bible. Scriptures may be repeated by all the family on different topics, the mother teaching the little ones short and appropriate texts. The fourth commandment may be said by all the family in concert at the beginning of each Sabbath, and from time to time connect with it such texts as Isa. 58: 13, 14; 56: 2; 66: 22, 23, and others, till by and by you will be able

to quote all the leading texts relating to the Sabbath.

O, if we can not leave our children a legacy of wealth or property or a university education, or any of these things, we can leave them that which is of far greater value — a knowledge of God and his Word, which by his grace will lead them to the highest of ideals, and give them power to obtain the truest riches and happiness bestowed upon man.



## Companionship in the Home

THE ideal social life should be in the home, for here there is no line of demarcation between old and young, no separation of the sexes, but all meet together in a community of interests which should insure a community of pleasures.

It is a mistake to separate the old and young in social life. The old need the vivacity and enthusiasm which the young possess as a stimulus, and the young need the wisdom and experience of the older people as ballast.

In the home we find the ideal conditions, both sexes and all ages meeting on a common plane; but unless there is a sympathetic unity of feeling and of desires, there will be no real companionship.

To sleep under the same roof and eat at the same table does not of necessity make people companions. We can not expect that the children will come spontaneously into sympathy with the parents. They have not had the experience necessary to do this, but the parents, having been children, ought to be able to sympathize with their children.

It is only by remembering their own childhood that they can come into harmonious relations with the young people in their home.

Christ's words, "Except ye . . . become

as little children, ye shall not enter into the kingdom of heaven," seem to me to be applicable here. Unless you can enter into that state of mind that understands the heart of the little child, you can not bring into your home life the harmony which is in itself heavenly. It seems easier for many parents to enter into the life of the little child than into the life of the growing boy or girl. The father can get down on all fours and "play bear" with the two-year-old, but does not know how to enter into the mind and heart of the boy of ten, twelve, or fourteen. Instead of making the lad feel that he knows the delights of boyhood and sympathizes with them, he stands in the boy's mind as the arbitrary power that is forever interfering with his plans of enjoyment. If he could feel the father's sympathy, he would more cheerfully accept his father's decisions, even when they interfere with his own wishes. Fathers and mothers should as far as possible be in the pleasures of their children, in spirit and interest, if not in fact.

The young people should be made to feel that home is the best place for fun, and that father and mother can laugh at their innocent pranks, even if not taking part in them.—*Mary Wood-Allen, M. D.*

# CURRENT COMMENT



Opinions here quoted are not necessarily all approved by the publishers of LIFE AND HEALTH.

## Milk

MILK, as ordinarily obtained, is very much overrated as a food by the profession. It is conceded that milk from perfectly healthy cows is good, but how many perfectly healthy cows are there? The milk from stall-fed cows, tuberculous cows, or insect-bitten cows, is poisonous; besides, the water added to the milk to increase its bulk is generally not of the best character. The profession must find a substitute for milk. Who will find it?—*Medical Brief.*

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## Clean Milk

THE question as to which is the best milk for infants and children, next to mother's milk, has passed through various stages of discussion. The most available milk in this country is that of the cow; and sterilization by means of heat was applied to it as soon as the bacterial cause of the enteric diseases of childhood was understood. This process has undergone much the same change as the contention for absolute asepsis in surgery has: it has been found that it is quite impossible to eliminate all bacteria, that a few micro-organisms do little or no harm, and that to kill all the bacteria inflicts damage upon the environment in which the bacteria live. So Pasteurization wrought deleterious changes in the milk; and effort simply to minimize the number of bacteria has been followed by such astonishingly good results that it signalizes one of the great advances in preventive medicine.

Certified milk has resulted from this knowledge; and the demand for this milk is increasing beyond the supply. The sensitiveness of the urban infantile intestine is destined to exert a powerful influence for good upon the rural barnyard; and the farmer is beginning to wash his hands, just as the surgeon did twenty years ago.—*Editorial, New York State Journal of Medicine.*

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## Opposition of Dairymen to Sanitary Methods

ALL dairies are inspected at least twice a year. If conditions fall below a certain standard, Dr. Goler notifies the offender. Always a very reasonable chance is given before further steps are taken. The retailer who handles the dangerous output is also notified. Now, should the dairyman disregard the warning, his milk is condemned. An embargo is put upon it. No sale of it can be made within the limits of Rochester. . . . For the retailer who adulterates his milk after receiving it from the dairyman, there is worse in store than the loss of his merchandise. He is promptly haled to court and vigorously prosecuted. . . .

Such pernicious activity has, of course, tended to make the Health Department unpopular in certain quarters. "Vested interests," that shibboleth of the modern commercial Juggernaut, raised their voices. It is always so; every attempt to save human lives wholesale means a cutting down of somebody's profits. . . .

So, in Rochester, keeping milk unpoisoned meant interference with the divine

right to get and hold. The milkmen rose up in their wrath and formed an organization to do away with such meddling. They undertook to pass an ordinance putting the Health Bureau completely under political control. With refreshing frankness their spokesman, a local lawyer, expressed their point of view, at a hearing before the council, to the effect that making a city of two hundred thousand people pay more for milk, simply for the sake of the twenty thousand babies in the population, was absurd and ridiculous.

To comment upon this would be to paint the lily. It may stand as a fit embodiment of the principles which underlie the anti-public-health campaign in its every phase.—*Samuel Hopkins Adams, in McClure's for June.*



#### Covered Milk Pail—New Shape Which Aids in Keeping Dirt Out of Milk

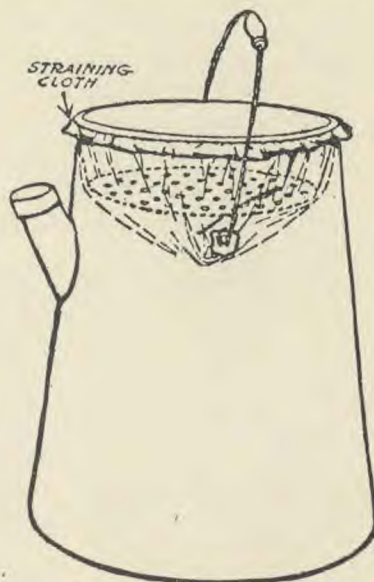
As the cleanliness and healthfulness of milk depend quite largely on the character of the milk pail, we are glad to give our readers the benefit of the following, taken from an exchange. But it should be borne in mind that unless the pail and the cloth are absolutely clean and germ free to begin with, the shape of the pail and the cloth protection will be of comparatively little value.

This is the ideal. Of course, where all these precautions are not taken, the milk pail described below will probably keep out the most of the filth and germs:—

"The milk pail shown in the illustration is something like an ordinary milk pail turned upside down—small end up. The top is seven inches in diameter. A shallow pan two inches deep fits tight in the top, and is fastened there. A few holes one sixteenth of an inch in diameter in the bottom of the pan near the center

let the milk run through into the pail. The spout of the pail has a tight-fitting cover. One or two thicknesses of strainer cloth are slipped under the pan before it is fastened in place, and the result is a dust- and dirt-proof pail. There is no patent on this pail, says the *Montreal Herald*.

"The milk strikes the bottom of the



New Style Milking Pail.

pan, runs through the holes in the pan, through the strainer cloth, and into the pail, where it is practically sealed from the outside conditions. It comes in contact with the air of the barn only while it is passing from the teat to the pan—a distance of perhaps six inches."



#### Poisoning by Eggs

IN an inaugural thesis upon the subject of "Poisoning by Cream Puffs," Dr. Le Coq called attention to the existence of a poison in hen's eggs, which he calls ovotoxin. Even the best eggs may cause digestive disorders, owing to idiosyncrasy in certain individuals; but in most cases when poisoning occurs after the use of

cream puffs or similar food containing eggs, it is caused by the presence of this special toxin.

This may exceptionally be present in a fresh egg, but rapidly develops in stale eggs. Upon breaking the shell its presence is generally manifested by a peculiar putrid odor, which is most marked in the yolk. The odor may not be manifested by the white, and yet this may contain considerable quantity of the toxin.

He warns bakers against the use of eggs which have been cracked for a time. These should never be mixed with cream, which seems to be especially suited to produce this septic alteration in the eggs.

The use of desiccated and preserved eggs is absolutely condemned.

Dr. Le Coq's discovery has a special interest for the department in connection with its recent condemnation of desiccated eggs intended for culinary uses, and experiments are being made in the laboratory in order to furnish proof at first hand of the poisonous properties of desiccated and preserved eggs.—*State of Chicago's Health.*



### Vegetables and Typhoid Fever

INVESTIGATIONS made by the State Board of Health prove beyond doubt that there is great danger of the spread of typhoid fever by the use of uncooked vegetables which have been contaminated by human excrement. Gardens were found where the liquid excrement was used to sprinkle on the plants to kill insect life. Should those vegetables be eaten raw, as many of them are, serious consequences might result.

In the neighborhood of cities where land is valuable, intense cultivation and fertilization are necessary, and nothing is allowed to go to waste that will enrich the soil. Sewage in concentrated form and sewage-polluted water are used to fertilize and irrigate vegetables which are

eaten raw, and strawberries. These things should be carefully watched by local health authorities and not allowed, for there is no doubt that much sickness results from the practise. As a precautionary measure, where there is a suspicion of danger, the following from the Bulletin of the Chicago Health Department could be used:—

“Dr. Ross C. Whitman, of the Laboratory of the Department, furnishes the following interesting hint to housewives: ‘Recent experiments conducted in the laboratory have demonstrated that typhoid bacillus, which may be found upon fruit or vegetables designed to be eaten raw, can be killed by immersing these articles of food in a five-per-cent solution of tartaric acid for half an hour, and then removing the acid by rinsing in clear water. Such a solution of tartaric acid may be prepared by dissolving one tablespoonful of tartaric acid in a pint of water.

“‘Tartaric acid is a fruit acid. It is derived from the grape, as citric acid is derived from the lemon. This acid is absolutely harmless, being an important constituent of cream of tartar, which the housewife uses every day. Such a solution of tartaric acid will kill all the typhoid bacilli that may be upon celery, lettuce, radishes, or other vegetables and fruit that are to be eaten raw. In this way all danger of contracting typhoid from these sources is absolutely avoided. The tartaric acid can be very readily removed by rinsing in clear water. This is a practical household method, and should be used by every housewife.’”—*Bulletin California State Board of Health.*



### Poison in Potatoes

It is stated that potatoes, under certain conditions, contain an alkaloidal poison known as solanine. Very little of this is found in new potatoes, unless they have grown on the top of the ground, and the

skin has become green. It has generally been known that such potatoes were poisonous, but the cause was unknown. Potatoes that are kept over until late in the summer also contain a large amount of this poison. It is said that in 1892 and 1893 a great many of the troops in the German army were poisoned by the use of such potatoes. Meyer found that old potatoes which were kept in a damp place and had begun to sprout contained twenty-four times as much of the salanin alkaloid as new potatoes.—*Iowa State Health Bulletin.*



### Sleeping Outdoors

THROUGHOUT a large portion of California the temperature seldom reaches the freezing-point, and sleeping in the open air is entirely practicable. In winter all that is necessary is warm coverings and a roof or canvas shelter to keep off the rain. There is hardly a house in city or country that could not easily have an outdoor sleeping apartment. A platform on the back or side, either with roof or entirely open, could be cheaply built. If without roof, in winter a canvas could be stretched from the side of the house to near the floor, which would keep the bed and inmates dry. Many houses have porches, the tops of which make excellent places to sleep. Two-story houses generally have a one-story portion, the roof of which, if made flat, and a door opening from the chamber on to it, is unsurpassed for an outdoor sleeping place. With a roof or canvas for winter protection, such a place is a joy to any family, and after sleeping on it for a season they could hardly be induced to sleep inside.

In the morning after a night in the open air one awakes with a feeling of exhilaration, and is fresh and strong. There is none of that headache and lan-

guor which are felt after sleeping in a close room. Go from the open-air bedroom into a close room where one has slept, and feel the oppression which comes. You feel stifled and unable to breathe because of the impure air.

During the hours of sleep the breathing is not deep and strong, and portions of the lungs are not well inflated, nor are the powers of life and elimination active. If the air breathed during that time is loaded with broken-down matter from the lungs, as it is if breathed over and over again, as is indoor air, the effect on the lungs and bodily health can be only bad. Many cases of consumption result from such sleeping. If perchance the germs of consumption or other infectious diseases are in the air they find in the lungs, which is only partially inflated, and that with air deprived of most of its oxygen, it is a place exactly to their liking. Disease germs have very little chance of prolonged vitality in pure air, as it is one of the best disinfectants known, and consequently a preventive of disease. Especially is this true of consumption, and those who would be free from this terrible disease should live as much as possible in the open air. It is not within the power of all to spend the day out of doors, but the nights can be, and as we pass nearly a third of our time in bed, the breathing of pure air during that time would be a mighty aid in eradicating the "great white plague."

We all have the power, to a greater or less extent, to destroy the disease germs which attack us, and this power depends in a considerable degree upon the physical strength and vitality of the person. Anything to increase that vitality should be practised, and nothing which is at once cheap and pleasurable can compare with outdoor sleeping.—*Bulletin California State Board of Health.*



Conducted by T. E. Bowen, Takoma Park.

## Edinburgh, Scotland

SINCE we arrived in Scotland last fall, my time has very largely been taken up with studies and hospital work, preparatory to running the gauntlet which will qualify me for practise as a medical missionary in British fields. However, this has not prevented us from receiving a few of those rich blessings and experiences which come to those who humbly try to follow the Master's example in bringing the glad tidings of great joy into the hearts and lives of others.

One experience which we had I would like to briefly relate, feeling it may be of encouragement to some one. For several reasons, we felt it our duty to remove from our lodgings, and engage quarters at this place. We had been settled only a day or two, when our landlady, who is a Christian, came into our room, with tears in her eyes, and said she had felt in her heart, ever since we had been in her house, that the Lord had sent us to her. She told us of her son who had recently returned from the army, a drunkard, who would sell anything he could get his hands on, for a drink; in fact, he had gotten about as low as he could go. She asked if there was anything we could do for her boy. We told her we would be glad to do all we could for him.

I had a talk with the boy, who expressed his desire to be rid of these evil habits, but said he had tried so many times without success. The mother promised to try to keep him in the house for a week. I gave him treatment each

day, and succeeded in getting him over the first few days, which are always the worst in these cases, and got him sober, so he could think with a clear brain. I asked him into my room one evening, and told him that he was breaking his aged mother's heart, and that he was ruining his life physically, also his hope of eternal life; that the help we had given him was only temporary, to give him a clear mind, that he might have an opportunity to choose the right way; that the only thing which could save him completely was the power of Christ.

After talking and reading with him for some time, I asked him if he would not accept Jesus as his Saviour, who could deliver him from this thing and from all sin. I told him I could heartily recommend Christ to him as One who would never leave nor forsake him, and who was fully able to keep him from falling. We got on our knees together. I prayed earnestly that God would give him just what he needed just then, and asked him if he would not pray for himself. The only words he could utter were, "God help me, or I perish," in a very broken voice. He arose from his knees with a new light in his eyes. I told him to tell his mother about it, which he did. It is needless to say there was rejoicing in his house that night, as well as in heaven. Some time has now passed. The boy has gone steadily onward. Every one remarks at the change which has come into his life. His mother is happy, knowing her son is at home reading and studying

his Bible, instead of lying drunk in some grog-shop.

None but those who have had the experience can know how happy such an experience makes us. We would rather be the means in Christ's hands in leading just such sin-sick souls to the foot of the cross, and of bringing such happiness into the lives of others, than to be the king of this great nation, and be without Christ and his love.

H. J. WILLIAMS.

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### Calcutta, India

THE past year has been the most prosperous one in the history of our sanitarium work here. We have felt the Lord's protecting hand over us, and have seen his power manifested in so many ways that our hearts have been cheered, and our strength renewed.

We have cast our bread upon the waters, and have seen souls hungering after truth take hold of the precious promises of God and place their feet upon the solid Rock.

Last March I visited Karmatar, one of our stations in Western Bengal. This is the place where Sister Whiteis labored so faithfully among the poor.

One can not visit the sick and suffering among these people without feeling pained at heart. We feel that we would like to be transformed into a multitude of ministering spirits as we look upon the hundreds of hungry faces and diseased bodies of those who know not the Saviour who died for them.

These poor people know that the medical worker has a power that they have not, and they come with all kinds of trouble, from common sore eyes to the most loathsome diseases, and beg to be healed, and God has certainly wrought miracles for our faithful nurses, who are often hampered and perplexed for lack

of the most common necessities in giving treatment.

The childlike faith displayed by these people is remarkable, and it is sad indeed to turn them away when there is no help. I have spent a few weeks in Mussoorie, in northern India, where our mountain mission is located, and we find the same spirit manifested here in regard to our



HINDU FAKIRS (BEGGARS)

These men hold their arms in one position for years until they can not be moved.

Bible and medical work. The native is so steeped in his superstitious religion that it is not an easy matter to turn him, but when once he takes hold of the truth, he is filled with a burning desire to learn more and to tell it to others.

There is nothing like the medical work to get to the heart of the Indian. In ministering to the body the heart is opened to kind words, and will in many instances receive all we can give of the Word of God. Where are all our medical mis-

sionaries who have gone forth in the past ten years? We have not fifteen here where we need a hundred.

Let the worker who wants more work and more room, come to India and put his heart into the work, and he will receive an experience that can not be gained in any other place. India is reaching out her hands for medical missionaries who know the truth in all its fulness, and will live it under all circumstances.

H. J. JEWELL.

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### Preserving Fruit in China

IN this section of China we are fortunate in being able to secure a few kinds of fresh fruit in season. The Chinese, having no way of preserving fruit other than drying, make very little use of it as a food. The fruit season is very short, and we are dependent upon what we are able to can for the year's supply. Having had good success in canning fruit here, where everything spoils that can spoil in the hot season, it might be of interest to some to know the method used; not that there is anything original about it, but there are one or two important points that receive special attention.

We preserve altogether without sugar, preferring to add this when the fruit is eaten; but this is a matter of taste. The fruit and the cans are made sterile by boiling in the usual way, special care

being taken to boil the tops thoroughly, for half an hour at least. Used Mason tops are likely to conceal particles of fruit between the porcelain and the metal, so require longer boiling than the cans. The boiling fruit is then put up quickly, and when sealed tightly, as far as can be told, the can is inverted and placed on the table to cool, where it is not disturbed for twelve hours, or until thoroughly cool. Any germs which may have entered in placing the rubber are thus destroyed by the boiling fruit in contact with the cover surface. But more important still is the fact that as the fruit cools, a slight vacuum is formed in the bottom of the can which is turned up. When ready to put the cans away, they are one by one turned over, and the cover quickly placed to the ear; as the fruit settles to the bottom, the slight vacuum is thrown next the top, and if the jar is not perfectly sealed, one hears a slight hissing sound as the air passes in from the outside. This is almost a sure test. The can may not ooze, and as far as the eye can tell look just like the others, but a jar that leaks air will allow mold spores and germs to enter, and will surely result in spoiling the fruit. Out of one hundred and thirty cans put up a few days ago, there were twelve detected in this way, and were saved by reheating and sealing with an extra rubber. BERTHA SELMON.





# QUESTIONS AND ANSWERS



Conducted by G. A. Hare, M. S., M. D., Fresno, Cal.

## 281. Pancreatin and Artificial Digestants.

—A. M. B., Minn.: "1. Will pancreatin assist in the digestion of food if a patient has weak digestion? 2. Would you recommend the use of it in such cases?"

*Ans.*—1. If food be placed in a test-tube and pancreatin be added, and the solution made neutral or alkaline and kept warm, the pancreatin will digest the food provided all conditions remain proper. But it will not do the same in the stomach, because the conditions are not all favorable. If the stomach be acid, and pepsin be present, as is usually the case, the pepsin will destroy the pancreatin. While if the stomach be not acid, the pancreatin will destroy the pepsin. Pancreatin, if taken, rarely ever passes out of the stomach before it is destroyed. There are rare cases in which artificial digestants appear to be beneficial for a very short time. Even in such cases they should not be continued more than fifteen days without interruption, for the reason that if the digestive ferments are supplied artificially, the digestive glands cease to make them, and the patient is made worse than if they had not been used at all. There is a better way. Stop making the stomach bad. Live a natural, physiological, happy life; it can be done, and it pays well. It means wholesome food nicely prepared, enjoyably and deliberately eaten, with faith that the stomach will digest it; a reasonable amount of exercise, and a proper amount of rest; pure air at all times; access to sunshine; a clean skin; regular habits regarding the care and needs of the body; proper clothing; a cheerful mind, a clear conscience, and a good hope. These are the essentials of a good stomach and good lungs and good health generally. And the Creator has placed them all within the easy reach of every person. They are better than pancreatin.

2. No; we do not advise its use.

**282. Colds in Infants — Swollen Tonsils — Worms.**—L. S., Wash.: "1. Give remedy for baby that is having frequent colds. Baby is bathed in tepid water, and its living-room has good ventilation. Colds yield easily to onion poultice to chest, but it is not long before he

has another cold on his lungs. 2. What shall I do with little girl with swollen tonsils? They do not pain her, but swell so as to almost close the throat. Sometimes there are little sores with yellowish matter on them, sometimes a few clear-looking lumps in the back of the throat. 3. Shall I keep her from school? She has cool baths in the morning, has plenty of fresh air, and avoids sweets and fats. 4. She has worms, I think. What is good for worms? 5. What is good for eyes when they become dry at night, so that it hurts to open them? They become very tender when attempting to get them moistened so that they will open."

*Ans.*—1. Many cases of so-called colds in babies are not due to taking cold at all, but are the result of bad nutrition. Bronchitis, which often proves fatal, is in very many instances due entirely to bad nutrition. Usually the whole trouble comes from not knowing how to properly feed the baby. Such colds affect the baby when there is no reason to think it has taken cold. Such babies, with bad nutrition, are not always thin in flesh; they are sometimes quite fat and flabby, but not strong and vigorous. They can be gotten entirely well, but it requires months of intelligent persistence in right feeding. There are no fixed rules or methods that fit every case. Each case must be studied individually. No one food, however perfect, will agree with every one of these imperfect babies. The method of preparing food for babies has been given several times in this journal. Where one takes cold easily, a cool hand bath, followed with an alcohol or oil rub, will prove a good preventive treatment.

2. Have the tonsils removed.

3. If the throat is properly treated, she need not be deprived of school.

4. The only reliable evidence of worms is the actual passing of worms or pieces of worms. To cure a child of worms it is necessary to give it medicine sufficiently poisonous to sicken or kill the worms. It is usually necessary to give but one or two doses of worm medicine. Because of the poisonous character of all reliable worm medicines, we can not recommend

their use for home treatment, but advise you to see a good physician.

5. Bathing the eyes in very hot and very cold water alternately for half an hour twice a day will relieve the trouble. We advise you to also place a moist compress on the eyes at night, covering the compress with a dry flannel.

**283. Food Values of Dairy Products—Solid Food for Babies—Croup.**—"1. Will you give the food value of cream? also of skim milk? 2. In case a child has not sufficient mother's milk, do you advise alternating the feeding periods with cow's milk, rather than weaning it from the mother and feeding cow's milk altogether? 3. How many teeth should a child have before it can masticate bread? and at what age do you advise feeding solid foods? 4. What is a quick remedy for croup?"

*Ans.*—1. It must be remembered that the nutritive values of milk, cream, etc., vary considerably, and that the percentages here given represent averages, and are only approximately correct. One hundred parts of cream contains, of proteid (largely "curd") 2.5 parts; of fat (butter) 18.5 parts; and of carbohydrate (sugar of milk) 4.5 parts. Whole milk has the same ingredients; respectively, 3.3, 4.0, and 5.0 parts. Skim milk has 3.4, 0.3, and 5.1 parts. Whey, 1.0, 0.3, and 5.0 parts. Buttermilk is practically the same in the proportion of these three ingredients as skim milk.

2. Yes. Unless serious sickness or other equally good reason makes it unwise, we always recommend a mother to nurse her baby. In case her milk is not sufficient, give just enough cow's milk to supply the proper amount of nourishment, but continue to nurse the child.

3. A child should cut its first molar teeth, four in number, one on either side above and below, between the eleventh and sixteenth months. When these are developed, the child is able to masticate solid food. Feed a child milk till it is about one year old. Then solid food may be given carefully in connection with milk. In many cases these four molar teeth do not appear till a much later period. Such children are usually classed as rachitic, and the mother should secure the best possible counsel regarding the feeding of these individual cases. No fixed rules will answer.

4. We know of none. Genuine or membranous croup and spasmodic or false croup are two very different diseases. The first is a

very formidable and contagious disease. It is really diphtheria of the larynx. It is often fatal. Spasmodic croup is rarely fatal, and is not contagious. Neither variety can be cured quickly.

In the home treatment of genuine croup, inhalations of steam, especially from slacking lime; cool compresses to the throat, changed often; short hot baths with cold compresses to the head, the hands and feet being kept very warm, are all helpful. In young children ice compresses should not be used; they are too depressing. In genuine croup do not rely on home treatment. Tracheotomy is often necessary to save the child's life.

Prevent false or spasmodic croup by hardening the child against taking cold. Give the children outdoor life in sunshine, cold bathing daily with oil rub, proper clothing so that neck and feet are not chilled either day or night. If child has catarrh, have it properly treated, remove nasal obstructions, adenoid growths, or enlarged tonsils.

To relieve the attacks, give hot bath or hot pack, with cold compresses to head. Apply cold compress to chest, which should be changed every three hours. Spasm can often be relieved by dashing cold water on chest, or by percussing chest with end of towel wet in cold water; when child shows symptoms of croup, a cool compress to the throat and chest, covered with dry flannel, and worn all night, will very often prevent an attack.

**284. Cure for Snoring.**—"Is there any way to cure a person of snoring?"

*Ans.*—Yes. Snoring is caused by breathing through the mouth. Quit breathing through the mouth, and you will quit snoring. This is a simple remedy, but not always an easy one to practise.

If the nostrils are not obstructed, there is no excuse for snoring. Sleeping on the back often causes the mouth to drop open, and is a frequent cause of snoring. If you can not break the habit of opening the mouth during sleep, fasten a bandage around the chin, so that the mouth can not be opened, and you will snore no more. In cases where the nostrils are obstructed by the pressure of enlarged tonsils or adenoid growths or hypertrophied turbinates, the nostrils must be made open and free by the removal of these obstructions. This can be done only by a surgical operation,

# EDITORIAL



## Evidence Is Evidence to Those Only Who Accept It

IN man's beliefs there is a strong tendency to stability. Whether because a change of belief implies a confession of former ignorance, or whether it involves too great changes in the mental processes, or whether the new adjustment involves personal sacrifice, the fact remains the same, that man naturally resists those influences which tend toward a change in his opinions, even to the extent of ignoring facts that if accepted would tend to shake his former beliefs.

When something occurs that disturbs settled opinions, either the new fact, whatever it is, is ignored, or it is accepted in such a way as to disturb as little as possible the mass of former opinions. While it is probable that each new fact received into the mind modifies in a small degree the existing beliefs, it is also true that the existing beliefs greatly modify the conception of the new fact, so that it will fit on to the old belief with the least change in the old mass.

No movement, however true in itself, whether religious, political, or scientific, has ever made headway without determined opposition. Garrison, the exponent of freedom for the black man, was hounded and persecuted, even in the North. Many a man has gone to prison or the stake for thinking in advance of his time. The temperance movement was once a despised and discredited cause.

Even the Christian religion had to make headway against mighty odds.

A good illustration of what I may call the inertia of belief occurs in a recent editorial article in the *New York Medical Times*. As is the rule in every case of opposition to reform, there is in this case the opportunity to ask the question, "Are not nearly all the leaders of thought and the great mass of the people opposed to the new movement?" The article referred to is headed, "What Shall We Eat?" The circumstance which called out the article is the report of Professor Fisher's work at Yale, which pointed to the conclusion that "non-flesh eaters have far greater endurance than those accustomed to the ordinary American diet." The editor of the *Times* comments:—

"Yet the cause of the meat eater, we humbly submit, is not altogether lost; we are, for our part, not absolutely convinced by the experiments of even so great an authority as Professor Fisher. Why have all men, vegetarians as well as the rest, incisor and canine teeth in their jaws if not for cutting meat? Besides, to return to those Yale tests: It is true that in the test, which consisted in holding the arm out horizontally as long as possible, none of the flesh eaters lasted half an hour, as against fifteen out of the thirty-two vegetarians, of whom 'four exceeded two hours, and one stood in position more than three hours.' This is not human endurance; it is dervishism.

No one will contend, declares an exchange very sensibly, that a Yogi, who sits under a tree holding up his arm at right angles during twenty years, would stand much chance of making the Yale crew or eleven. If the soul can drive the body beyond a certain point of pain or fatigue, the body may be trusted to continue of itself until its almost utter collapse. Besides, the vegetarians have much more at stake (again, no pun intended) than the meat eaters. The former are of that soulful and enthusiastic class who want to show that the way of the world (in this case the omnivorous way) since the race's beginning, has been all wrong; and that the herbivorous way is the only right way. There is nothing that your thorough-going enthusiast can not endure; this has been proved repeatedly. And the vegetarian has so constantly to fight temptation arising from succulent and deliciously odorous flesh-pots, and the social inconvenience (some would think it a nuisance) of being a dissenter in diet, that he would naturally become capable of wonderful feats as the result of this discipline. On the whole, Professor Fisher and his heroic "subjects" do not seem to have settled the matter beyond peradventure; undoubtedly most human beings will continue, for a time, at least, to adopt a mixed diet—meats, fish, grains, herbs, and nuts—with mushrooms and frogs' legs as occasional side dishes."

Briefly, the arguments are: (1) We have canine teeth, which must be for the purpose of cutting meat; (2) the tests by Professor Fisher were not real tests of endurance. How easy it is for one to dispose of a belief that is distasteful to him!

But it is really surprising to see a physician capable of editing a paper like the *New York Medical Times* gravely assert

that the canine teeth adapt man for a meat diet. In the first place, the name "canine teeth" is a misnomer, and does not in any manner indicate the office of these teeth in man. The canine teeth in dogs, and in fact in about all carnivorous animals, are long and tusk-like, and serve as weapons, and as instruments with which to tear their prey. If our friend will notice his masticatory movements while eating meat, he will observe that the principal work, aside from the cutting by the incisors, is performed by the molars, and not by the canines.

Again, the animals which have teeth practically identical with man are the anthropoid apes, though in these the "canines" are more or less tusk-like. Now if our friend, the editor, has really "discovered" that the canine teeth are for the purpose of eating flesh, he, or some other equally gifted person, should go on a mission to the apes, and convince them that they, in adopting vegetarianism, have degenerated!

Why are not Professor Fisher's experiments tests of endurance? The thought seems to be that it merely gave evidence of the ability to bear pain and discomfort, and that the men who came off victors in this contest would make a poor showing with the Yale crew in their regular games. It is impossible to say as to that, until such a contest takes place; but can it be possible that the editor is ignorant of the numerous walking matches and bicycle races in which the vegetarians have completely outclassed the meat eaters? These records, not appearing in periodicals within a certain circle, could be ignored. But the records stand, showing that Karl Mann and his associates are, for long-distance work requiring hours of severe muscular effort, far superior to their meat-eating competitors.

The fact is, the points mentioned by the

editor are vague and uncertain inferences which would have no influence on an unbiased mind; and they do not affect in any manner whatever the fact that vegetarians have again proved their superiority in physical fitness to those who eat meat.

The results of Professor Fisher's experiments are not surprising when we remember that in experimental work on muscle preparations a muscle treated with meat juice tires, the same as it would from continuous work.



#### "Rochester's Pure Milk Campaign"

*McClure's* for June has an article by Samuel Hopkins Adams on Rochester's Pure Milk Campaign. The energetic health officer of that city, noting the high infant mortality during the summer months,—the result in large measure of unclean milk,—and not being in position to control the milk supply in such a way as to insure clean milk for the bottle-fed babies, conceived and put in operation the plan of having the city furnish milk for infants. A dairyman was found who was willing to co-operate with the plan. His premises were cleaned up, and careful instructions were given the employees regarding cleanliness in milking and handling the milk. The work was so supervised that the milk from this dairy would keep in the cooler for a period of two weeks without souring, yet it was always served to customers within two hours of milking. The milk was not Pasteurized nor sterilized: it was simply *clean milk*.

This experiment has been in operation about ten years, and shows a reduction in mortality of children under five years old of *one third*, or 2,486 lives, as compared with the previous ten-year period. This would mean a saving of two hundred and fifty babies a year. The prosecution of this plan has caused an

outlay of money by the municipal government, but it is money well spent.

As a means of education it has been the plan to move the municipal apparatus from one dairy to another, thus by means of a practical demonstration showing the farmers the feasibility of hygienic dairying. But, "unfortunately, few farmers could be brought to take interest in the matter. Although there is absolutely no expense to the dairyman, other than what is involved in decent cleanliness, and although there are no requirements beyond a pure water-supply and decently humane ventilation of the barns, the farming population of Monroe County preferred to furnish dirty and more or less diseased milk in the old way."

And these dairymen are not far different from the dairymen in other places. It is easier and cheaper to be dirty than to be clean. "Anyhow it all sells as milk. What is the difference how it is prepared?" And the American people take their milk by faith, giving it the benefit of the doubt. It is clean until it is proved to be dirty.



#### Studies in Digestion

L. L. FOFANOW has been conducting a series of studies on normal individuals in order to learn how the stomach secretion is modified by various external influences. He observed particularly the effect of modifying circumstances on the amount of free hydrochloric acid secreted, and on the digestive activity of the gastric juice.

As a result of his studies, he arranged the gastric juices obtained by various means in the following order, the first having the greatest proportion of free hydrochloric acid and the highest digestive power:—

1. The juice produced by exciting a person by the sight of a meal. ("Appetite juice.")

2. The juice produced by swallowing ice-water.
3. The juice obtained one hour after an Ewald test meal.
4. The juice produced by swallowing warm or hot water, this juice being only one fifth the strength of that produced by swallowing ice-water.
5. Mastication without swallowing.
6. Masticating and swallowing, the juice in this case being only one third the strength of the juice formed by chewing and not swallowing.

The longer the time consumed in eating the meal, and the more thoroughly mastication is performed, the greater will be the proportion of hydrochloric acid present, and the more efficient will be the juice as a digestive agent.

These results are largely confirmatory of what has already been accepted by other students of the digestive process. For instance, it has been known since the publication of Pawlow's experiments that "appetite juice" is a most powerful factor in normal digestion, and for this reason any diet prescription which ignores the preferences of the patient is apt to result in failure. It has also been known as a result of extended experience, and more particularly since Mr. Fletcher has specialized on this subject, that thorough mastication is a most powerful aid to digestion. The tendency, however, has been to attribute this largely to the increased salivary activity and the finer comminution of the food. It would appear from Fofanow's studies that there is a marked improvement in the quality of the gastric juice as a result of careful mastication, so that the digestion of proteids, as well as of starches, is aided by chewing the food thoroughly.

The observation regarding the effect of ice-water will be a cause of surprise to many. It may explain why in some cases iced foods are retained in the stom-

ach when everything else is promptly ejected. It would, however, be unwise to conclude from this observation that it is beneficial, or even harmless, to drink ice-water at meals. It is one thing to stimulate the production of gastric juice by means of a quantity of ice-water, taken into the stomach without anything else; it may be quite another thing to drink ice-water at meal-time. At any rate, experience indicates that the drinking of ice-water with meals is a harmful practise.



### Hygiene and Hygiene

THREE or four decades ago, the movement of which LIFE AND HEALTH now stands as one of the exponents stood almost alone in the work of teaching hygiene. Since then there have sprung up in many places physical culture men, food men, and others, each with a gospel of health all his own. Much of the instruction of these men was good, tending to simplicity in life; some was not so good. The teaching of one "specialist" was sometimes diametrically opposed to that of another health teacher.

More recently the physicians have taken up the health campaign; and here again it is apparent that there is anything but uniformity in the teaching. Even on so fundamental a matter as the nutritive requirement of the body, a leading physiologist has given very conclusive evidence that the position held by other physiologists and teachers is wrong.

Until there is more unanimity of opinion among the leading physiologists in the profession; until some of these very open questions are settled, it will hardly do to brand as pseudo-scientific all statements issued by laymen, which do not coincide with the teaching of the medical body.



NOTWITHSTANDING strict laws against the importation and sale of cocaine in India, the cocaine habit is said to be rapidly increasing.

BERLIN'S thirty vegetarian restaurants receive the bulk of their patronage from students whose monthly allowances are nearly exhausted.

THE faculty of Wisconsin University has passed a recommendation "against the use of tobacco in public places, corridors, and entrances of the university."

THE city of Buffalo has a Fresh Air Mission Hospital, situated on the shore of Lake Erie, about twenty miles from the city, where cases of cholera infantum are treated.

AN edict has issued from the headquarters of the Southern Railway Company, to the effect, so it is said, that every employee who uses cigarettes must either quit the practise or give up his position.

IN Austria a new proprietary medicine may not be sold except by medical prescription until its action has been tested and approved by medical authorities. Such a law in this country would shut out effectually many new candidates for the patronage of the credulous.

GERMANY has a system of compulsory insurance for wage-earners, which provides that sickness or accident shall not leave a man's family destitute. With the funds raised from the premiums, more than fifty-six thousand persons were given treatment during 1905, nearly half this number being victims of tuberculosis.

THE Erie Railroad Company has a hospital on wheels—a hospital car forty feet long riding on six-wheeled steel trucks, and containing a ward with a capacity for eleven patients, and a well-equipped operating room. It is to be used primarily for employees of the road, and will be sent out as part of the equipment of wrecking trains.

THE Vanderbilt Clinic Building of the New York College of Physicians and Surgeons is to be remodeled with a view to the installation of a fully equipped hydrotherapy department.

FRANCE has a law prohibiting the sale of secret proprietary medicines. The publication of advertisements recommending medicines is also prohibited, though the law does not appear to be rigidly enforced.

IN several European cities milk is filtered through sand, so says *The Family Physician*. By this process the dirt is removed, bacteria are reduced to one third, and the quantity of mucus and slimy matter is greatly lessened.

BECAUSE of the strike by the drivers of the street-cleaning squad of New York, decaying garbage accumulated in July to the amount of thousands of tons, and became a serious menace to health, especially on the East Side. The people to a certain extent have attempted to lessen the nuisance by burning the garbage on the streets.

THE eleventh annual Anti-Alcohol Congress will convene in Stockholm, Sweden, July 28. The State Department, Washington, D. C., has appointed delegates to attend this congress. Among them, Drs. T. D. Crothers, of Hartford, Conn., and T. A. McNicholl, of New York, and Mr. D. A. Hockhart, of Hartford. These meetings are assuming an international importance.

SOME of the "patent medicine" manufacturing companies in Germany, having so worded their advertisements as to convey the idea that a patent is a guarantee by the government of the purity and efficacy of the patented article, the Berlin Chief of Police has published a warning to the effect that the patent has nothing to do with the question of efficacy. A man may patent a carpet sweeper, or a milking machine, or a formula for a nostrum which in practise may prove to be absolutely worthless.

THE Liverpool School of Tropical Medicine has sent to Central Africa an expedition to study sleeping sickness, in order to devise preventive measures.

THE school children of Chicago—600,000 of them—are to receive copies of a consumptive catechism prepared by the Board of Health of New York, and distributed by the Chicago Tuberculosis Institute.

THE New York Board of Health, which has given eggs and milk free to consumptives, has abandoned the practise because of lack of funds. During 1906 the department gave away 50,000 quarts of milk and 96,000 eggs.

AN Association of Teachers of Children's Diseases was organized at Atlantic City, June 6. Its object is the advancement of the study of children and their diseases, and the raising of the standard of the teaching of that department in medical colleges.

PHYSICIANS interested in hydrotherapy met at Atlantic City, June 4. Representative physicians discussed the importance of promoting study and practise of the various physiologic or drugless methods of healing. A committee composed of such men as Hare, Thayer, and Baruch, was chosen to prepare for a symposium on these subjects, to be presented at the next annual meeting of the American Medical Association.

"HARMLESS butter coloring killed two children recently. The two-year-old baby of Kent Sterling, at Lake View, Iowa, expired after a frightful agony of ten hours, having taken a little of the coloring from a bottle near where the mother was churning. Near Miller, S. D., the three-year-old child of Jacob Weis drank a tablespoonful and died in a short time. The coloring is being vended indiscriminately and sold at stores, and housewives, believing it harmless, are doubtless careless as to quantities used."

THE French minister of the interior has required the prefects in all France to organize "mothers' dispensaries" where mothers can consult regarding the care of their nurslings. Dr. Budin, in Paris, inaugurated the movement, and has practically given his life to the extension of the idea. The officers of the French nation have appreciated the immense importance to the nation of a proper knowledge of infant hygiene on the part of the mothers. Wherever Dr. Budin's dispensaries have been established, infant mortality and sickness have diminished in a marked manner.

THE bill to amend the vaccination act in such a way as to remove the requirement to vaccinate when smallpox is not known to exist in the community, was vetoed by the governor of Pennsylvania.

A HAMBURG editor was recently fined \$12.50 for publishing an advertisement which praised in extravagant terms an alleged remedy for inebriety. If such a law were to become suddenly operative in this country, wouldn't there be a "taking to the woods" on the part of the periodical men!

THE Turks have a practise which, as a hygienic procedure, a medical exchange commends highly. It is the custom of removing their shoes on entering a building. Such a procedure certainly must leave on the outside many street germs which otherwise would be brought into the houses.

A STATEMENT made by the medical examiner before the New York Board of Education, to the effect that "unless eye-glasses and better lighting are provided, 100,000 school children will have to be sent to the city asylums for the blind," resulted in the passage of a resolution calling for an expert examination of the eyes of every school child in the city.

ONE physician thus characterizes the soda-fountain: "It fosters the nostrum evil; it is a fruitful source of nervous and digestive disturbances; by its filthiness it may be, and probably is, the means of spreading infectious diseases. It offers opportunity for the illicit sale of whiskies and other narcotics. The powerful drugs dispensed in the 'patent' or secret drinks create a thirst which leads to crime and disgrace. It affords opportunity for undesirable commingling of the sexes. It paves the way for the wine and beer garden, and at last for the saloon."

IN Illinois the State Pure Food Bill drafted so as to be uniform in its provisions with the National Pure Food Bill has been set aside in favor of a bill in which some important provisions have been omitted. The ground for the omission was that these provisions would interfere with the milk, butter, and cheese industries. The Elgin Board of Trade, it is said, opposed the original bill on the ground that cleanliness is expensive, and would impose too heavy a tax on the dairy interests. Blended whisky interests are also said to be back of the movement for a modified bill,



THE people of Great Britain are coming to recognize the drink evil as a national problem second in importance to none. One phase of the question now receiving attention is that of mothers taking their suckling infants to public houses, and there giving them liquor to drink. It is hardly believable that such practises could be prevalent.

THROUGH the action of a committee of the Chicago Medical Society, the Chicago newspapers are now entirely free from advertisements of abortionists. The three cleanest papers threw out these criminal advertisements as soon as the matter was properly presented to them by the committee. The others relinquished this source of ill-gotten gain—this blood money—"only after being notified by the postal authorities that they must comply or have their papers excluded from the mail."

THE Nebuchadnezzar cure is popular in Connecticut and elsewhere. The cure consists in going on all fours, in order to strengthen the abdominal muscles. It is said that the gorilla and the chimpanzee do not know what dyspepsia is, and that the reason is because they walk on all fours. The writer is inclined to think the reason is rather that the apes have a more sensible bill of fare than most people. They are not always attempting to surprise their stomachs with new combinations. Dyspepsia is a necessary consequence of high art cookery.

A PARIS physician describes what he calls "electric sleep," caused by passing a peculiar interrupted electric current through the brain. In the animals experimented on, the unconsciousness and insensibility appeared as profound as that produced by chloroform; but as soon as the current ceased, the animals opened their eyes, and seemed as lively as ever, manifesting no ill effects whatever; and they did not seem to fear the operation, even after it had been performed on them a number of times. Even when the condition of sleep was kept up for several hours at a time, the action of the heart and lungs was normal. The doctor has had the current turned through his own brain twice, confirming the animal experiments. When the current had been turned on to the maximum, he was still dimly conscious, and he had a faint sensation of touch. When he came to, immediately after the cessation of the current, the only effect was a feeling of increased vigor, and he was able to go on with his lecture.

It is estimated that Londoners pay annually one hundred and fifty thousand dollars for water in their milk. The business of watering the milk must be a lucrative one; for the same persons are fined repeatedly for this fraud, and yet continue the practise. One thing that makes adulteration easy, is the fact that much of the milk in its pure state has so little cream that it is necessary to have a very low cream standard; and dealers having a richer milk can with impunity dilute it down to the standard.

THE *Washington Post* gives a good illustration of the remarkable effect of the mind on the body. It had been reported in Port Jervis, N. Y., that a bear had been seen in the vicinity. A man of seventy years, bent with rheumatism, was going down the road in the evening, when he saw in the adjoining field what he took to be the bear. "He threw away his cane, forgot his age and rheumatism, and ran 'like a deer' to the nearest neighbor's. The door was the old-fashioned kind, with the upper and lower sections. He threw open the upper part, and cleared the lower part with a bound, upsetting a table and two chairs." The neighbor went back with him, carrying a rifle. The bear turned out to be a stump. It is probable that the old man could not have done what he did without the scare, had he been offered a thousand dollars to perform the feat.

A COCAIN fiend recently died in a West Virginia hospital, because he was unable, owing to the enforcement of the new law, to get his accustomed "dope" of cocain. From this, it would seem that the new law is very effective; for ordinarily the drug habitué will manage to secure his accustomed drug, in the face of the most stringent law. It may be thought that the rigid enforcement of the law to this extent is unwise. But it should be remembered that a man so far under the influence of the drug as was this man is a hopeless case, and his life could be of little use to himself or to others. The rigid enforcement of the law will prevent others from becoming fiends. The law is principally preventive. It is said that this man started out in the morning to get his supply of the drug. Going from store to store, he pleaded, and he threatened, but all to no purpose. Finally he tried to secure a physician's prescription, but in that he failed. In the afternoon he collapsed in a saloon, and was taken to the hospital, and died the next morning.

# LIFE AND HEALTH

(Continuing Pacific Health Journal)

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All questions must be accompanied by return postage. If the reply is not worth that much to the inquirer, it is not of sufficient value to take up our time in replying. We are glad to answer all reasonable questions of subscribers, but we do not wish to pay two cents each time for the privilege of doing so.

The Review and Herald publishes a thirty-two page quarterly magazine, devoted to the defense of the principles of religious liberty, and the promulgation of the knowledge of these principles among all classes, to which we commend LIFE AND HEALTH readers. The price of this magazine is only 25 cents a year. Write to *Liberty* for samples and special rates to agents.

THE *Circle* is a clean home magazine with make-up similar to *Ladies' Home Journal*. It has twenty-five departments containing something of interest and importance to every member of the family. The illustrations throughout are profuse. The departments are: The Home Circle, Sports and Games, Travelers' Circle, Girls' Busy Circle, Church Circle, Art Circle, Circle of Music, Automobile and Motor, Photographers' Circle, Amateur Craftsmen, Mothers' Circle, Children's Circle, Collectors' Circle, School and College, Farm and Garden, Poultry Circle, Health and Hygiene, Women's Gowns and Accessories, Men's Wearing Apparel, Library and Reading Circle, Business Circle, Popular Science and Invention, Industrial Circle, Fun-Lovers' Circle.

✽

*Boys and Girls*, one of the cleanest and best of children's papers, leading always to a love of animal life and plant life, inciting to habits of studying nature *at first hand* instead of from books—in its June-July issue has an article ("A Living Pump") on the circulation of the blood, told in such a way that it must interest the youngest of readers, and even those who are too young to read. \$1 a year. Address Boys and Girls, Ithaca, N. Y.

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DR. O. C. GODSMARK,  
East Chattanooga, Tenn.

## Tomato Canning

(Continued from page 221)

drawn into the bottle. To keep it from doing so, employ a strong but rather fine twine so looped as to pass under the cork, fasten over it and around the neck of the bottle. Have the cork cut off even with the bottle, and pour on the melted wax. The string will be an assistance in removing the cork when the bottle is to be opened. If one does not object to the use of tin, sirup cans may be filled, and closed much the same as a bottle. Tomatoes canned in this way are always ready for soups, gravies, toasts, and to be used in many other ways.

✽

### A Few Elderberry Recipes

MRS. M. D. SPERRA

**ELDERBERRY BUTTER.**—Take one gallon of berries. Strain as for jelly, then boil the juice, and add three pints of good thick apple sauce made from tart

apples, and two pounds of sugar. Boil down to one-half gallon.

**ELDERBERRY JELLY.**—Two pints of berry juice, one pint of sour plum juice, and two pints of sugar.

**DRIED ELDERBERRIES,** stewed, and thickened with wheat flour or corn-starch, and sweetened, make a good sauce.

**HALF-RIPENED** elderberries are excellent for pies. The ripe ones, mixed with some acid fruit, are nice too.

✽

### Preparing Pineapple

If you wish to get the most enjoyment from your pineapple, do not cut it in chunks, either large or small. Do not cut it at all, but with a silver fork shred it into small but irregular fragments. Sprinkle over it the necessary sugar, add a trifle of water, and when it has stood a few hours, eat it with a satisfaction worthy of so excellent a fruit.

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