Life & Health

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Life & Health

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GENERAL ARTICLES

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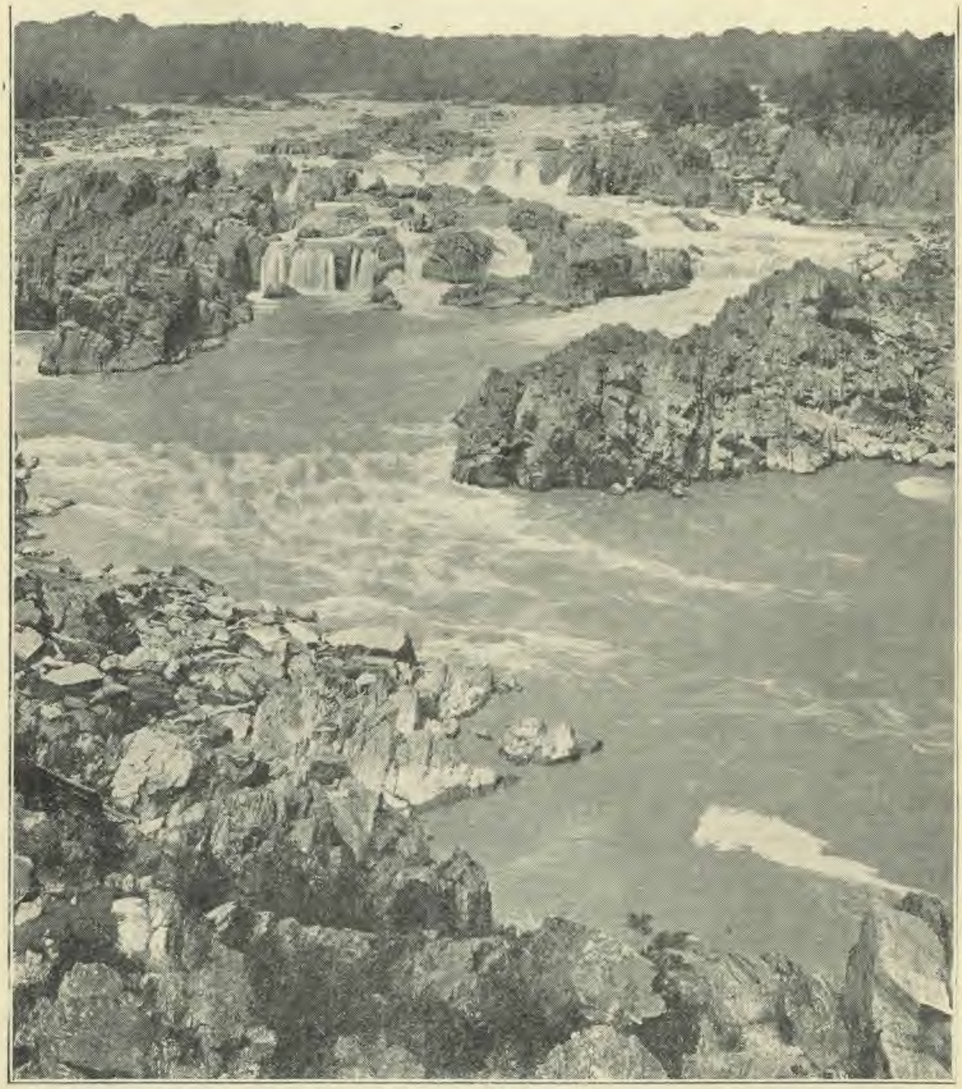
Yes; I would learn of thee thy song,
With all its flowing numbers,
And in a voice as fresh and strong
As thine is, sing it all day long,
And hear it in my slumbers.

— *Longfellow.*



GREAT FALLS OF THE POTOMAC, NEAR WASHINGTON

Life & Health

HOW TO LIVE

Editor H. W. MILLER, M. D.
Associate Editor L. A. HANSEN
Office Editor G. H. HEALD, M. D.

Vol. 33 January, 1918 No. 1

A Few Facts About Cancer

L. A. Hansen

MEDICAL science is making gains on most of the deadly diseases, such as yellow fever, malaria, tuberculosis, and diphtheria, but thus far has been unable to do much toward checking the progress of cancer, one of the oldest diseases. This terrible thing, with its accompaniment of bad odors, horrible disfigurements, and an almost uninterrupted course toward a fatal termination, is said to be on the increase, not only in frequency but in virulence.

Cancer takes more adult lives than any other disease. Tuberculosis numbers more victims in total because of the large number of young included in its list, but cancer makes up for numbers, and more too, by taking men and women of mature years and usefulness. One out of every eight women and one out of every fourteen men of those more than thirty-five years old, die of cancer. Medical men now call it the cancer problem, for it is a problem, even the intimate cause of the disease being as yet unknown, although much means, time, and brains are devoted to its investigation. Fortunately though, as with some other diseases the exact causes of which are unknown, there are measures which have proved more or less efficient in combating the increase of cancer.

The doctors tell us that cancer is not contagious. Investigators also assure us that if taken in time there are suitable operative measures that will stay the scourge, but they *must* be taken in time, for surgical measures late in the disease can be at best only palliative and not curative.

Cancer does not sound a loud warning in its approach. Its beginning is without pain. Its coming is usually insidious. Only after the cancer has developed to a point where remedial measures are impracticable does the pain become a symptom. Starting as a small spot, the disease, feeding on the body tissue, spreads until it has taken such large and deep hold that its removal is impossible. Instead of yielding its grip, it takes the victim.

DANGER SIGNALS

A few danger signals are hung out by our medical men, and people of the laity, especially those over thirty-five years of age, are urged to take warning. On the appearance of any of these, one should at once seek competent medical advice. These indications of the possible beginning of cancer are as follows:

A persistent sore, ulceration, or hardening of the skin.

Warts or moles showing a tendency to ulcerate, to bleed, or to increase in size.

Sores, thickening or ulcers of the mouth.

Tumors or swellings of any organ or part of the body, especially of the female breast.

In females, irregular or increased monthly flowing, especially if it begins after the change of life.

Abnormal discharge of blood from the bladder or rectum.

Gastric or intestinal indigestion, accompanied by progressive loss of weight.

NO DELAY

Let it be emphasized that to cure cancer it must be taken at the beginning; then the majority of cases are curable. Don't wait until you are sure it is cancer. You may wait too long, for all cancers end in death if let alone. The chances for a cure decrease with the length of time the disease continues.

Early diagnosis for cancer is all-important. Be sure to consult a skilful physician. The use of the X-ray is usually desirable and sometimes necessary for the proper diagnosis of internal cancer. The microscope is the main reliance in determining cancerous tissue.

Positive warning should be sounded against any delay in securing proper treatment by dallying with make-believe remedies. It would seem unnecessary to say that swallowing any kind or any amount of dope, call it "cancer cure" or what you will, only makes more certain the unhindered progress of cancer. Not only do such things have no effect whatever in staying the growth of malignant tumors, but they probably add that much rubbish and poison to the system to be combated and eliminated.

It is understood by medical men that certain forms of skin growths resembling cancer or partaking of its nature are removable by suitable applications of acknowledged medicinal value. But in this connection lies also a great danger,— that of depending upon salves or ointments in the treatment of deadly cancerous tissue for which there is no cure but surgery. The field of quackery and fraud has been heavily worked by so-called cancer cures. Advertisements calculated to make surgery an object of terror, make lying claims about "cures without the knife," whereas it has been most definitely established by the ablest scientific investigation and the fullest experience that a surgical operation is the only sure means of removing real cancer. Temporizing with nostrums in case of cancer is simply playing with death.

The value of correct dietetic measures both in preventing and treating cancer is recognized. The large percentage of stomach and intestinal cancer enforces recognition of improper eating as one of the causes of the disease. Some eminent authorities have observed that vegetarianism is strongly favorable to immunity from cancer. It is known that smoking is a direct cause of cancer of the lips or tongue,— another argument for correct living.

These are some of the things known about cancer. They are worth heeding by every one; for of the eighty-five thousand people who will die in America this year of this disease, the selection will fall — who knows where? Now read the article on "Moral Cancer" for some analogies that may be interesting.

Moral Cancer

L. A. Hansen

"The Word of God, like a spiritual X-ray, discerning even the intents and purposes of the heart, is the efficient and certain means of diagnosing the maladies of the soul."

AS we study the question of cancer in the physical being, there are certain striking comparisons to be made with the development and treatment of what we may speak of as moral cancer. We would neither make far-fetched arguments nor stretch any similitude out of reasonable comparison in drawing our analogies. In parables of natural and spiritual application you cannot always carry out the figure in full detail. Sometimes the spiritual truth differs from the figure in the most essential point, and of course, properly so.

Some of our ablest medical men have been deeply religious, and have in their spiritual-mindedness been keenly cognizant of the parallel between disease of the body and disease of the soul. Valuable lessons have been drawn from their observations. The close relation of the mind and body and the influence of one on the other have been shown as strong factors in both health and religion. And health and religion have a marked reaction on each other.

Now as to moral cancer, by which we mean bad habits, or, plainly, sin; for cancer is so much like sin in many respects,— or should we say that sin is so much like cancer? — that we find most interesting analogies, which ought to be impressive. Knowing what we do about cancer in the human body,— and medical science acknowledges that there is much yet to learn,— we can make some figurative applications that may help us to understand better the nature of moral cancer and how to be cured of it.

One of the prominent principles of spiritual truth is that parables, similitudes, and object lessons are most successful in driving home such truth. Take, for example, the insidious development of cancer, and note its counterpart in the moral life. Beginning in a small way to give place to a wrong thing,— a wish, a desire, or a habit,— we allow that thing to take root and grow, and soon it takes strong hold. As with cancer, there is no symptom of pain, so the thing we are doing may not hurt us at first. Only after it has grown firmly into our life do we see the harm it is doing.

A cancerous growth feeds upon the body tissue, gradually forming itself into an abnormal growth that more and more takes possession, until, if allowed to do so, it takes the entire life. So in the moral being, a wrong course of living robs the normal upright life of real strength, and perverts natural talent to unnatural uses, absorbing the activities until, if unchecked, it possesses the entire life and ends in its destruction.

In cancer, early recognition of the evil and its prompt removal are all-important. How like to this is it with the perverse tendencies of life! The longer we cultivate them the harder they are to get rid of. It does not take long for a vicious trait to grow to the point where it comes pretty near having the mastery. An unlawful practice does not need much coddling to assume large and strong proportions. The safe and sure

way of dealing with an abnormal moral tendency or inclination is to take it in hand at its earliest appearance, and deal with it before it is allowed to fasten itself upon the life and become a part of it. The percentage of moral conversions decreases with the advancing years.

Palliative measures, either physical or moral, will not cure cancer. Soothing salves do nothing to eliminate a cancerous growth from the tissues. Neither can we get rid of sin by drowning the consciousness of it in things that temporarily feel good. The pleasures of indulgence, whatever they be, do not remedy evil habits, but rather nourish them.

The Word of God, like a spiritual X-ray, discerning even the intents and purposes of the heart, is the efficient and certain means of diagnosing the maladies of the soul. With close microscopic search it reveals the most minute roots of sin, which, as in physical cancer, must be all and wholly removed to prevent a recurrence of the trouble.

The sure cure for cancer, when it can be cured at all, is by the surgeon's knife. It must be cut out. Recall now the words of Jesus Christ: "If thine eye offend thee, pluck it out." "If thy hand offend thee, cut it off." We do not understand that he meant we should literally pluck out an eye or cut off a hand, but that the process of ridding oneself of an abnormal thing in the life might be so severe and drastic as to be consistently compared to an act of real cutting.

Spiritual Nourishment

The Great Physician knew men, and he knew life. He was and is the healer of both body and soul. His prescription is the right one. His knowledge of human life and its needs left no alternative but to advise erring beings actually to cut out the sinful thing if they would be rid of it. And getting rid of it is the all-essential thing for us if we would live our life as it should be lived now, and enjoy the eternal life of the new earth.

Getting to the point of this surgical matter in dealing with moral cancer, shall we not understand that it means we are to cut out of the life the thing that tempts us to do wrong or the thing that is wrong? Is it an appetite or passion for a forbidden thing? Is it association with people or places that leaves us weaker? Is it indulgence in morbid reading? Is it anything that has a tendency to divert us from loyal principle? Whatever the sacrifice, however much it hurts, whatever material thing it may deprive us of, the thing to do is to cut it out.

This surgical operation is different from an ordinary one, in that we ourselves may help. We are not placed under an anesthetic, made unconscious of what is being done. Indeed, it is as if we wielded the knife. And here is where the thing may hurt all the more. To do this takes will power, and, thank God, help sufficient for the deed is offered us if we but place our wills on the right side. Determination will put an edge to the knife that will make a keen, clean cut.

Surgery does not do the healing, it only removes a hindering growth or puts the tissue in better condition for repair. Nature does the healing when the abnormal tissue is removed. So there is a hidden life ready to spring forth and

build us up spiritually when we have let the knives of conscience, remorse, and repentance do a work of cutting away what should not exist in the life.

All that we have known of the wonderful healing power of nature to perform miracles in the building up of weakened bodies, to repair wasted and injured tissue, to bring back life when it is all but gone,— all this and more is true of the healing power of spiritual life in making a man new and putting into him a life filled with vigor and well-doing. That healing power, whether in body or soul, is the healing power of God. We give it place as we remove whatever is in its way.

The True Healer

A word regarding cancer. In the flesh it is known to originate because of some error in living. Irritating causes will produce it by undue chafing. Certain wrong habits in diet are the source of many cases. Something wrong in the life processes allows the cancer to develop. Spiritually we find a likeness, for the life that does not go straight makes a place for an abnormality that takes strong hold.

It is the physical life that is well kept up, properly nourished, and clean, that will help a man stay off the operating table; and if he has to go on it because of accident, it will give him the highest chance of recovery. So, too, a spiritual life well nourished by the Word of God and other good spiritual food, and lived upright and clean, makes a man immune to the inroads of sin. If something out of the ordinary happens to him,— disaster, trouble, or distress,— he is enabled to withstand it and to avoid a moral fall.

The putting off of a surgical operation, especially in cancer, lessens the prospects of a cure. The trouble itself grows too big for successful removal, and the human system cannot withstand the shock. Delay in cutting out an evil tendency hastens its growth and decreases the possibility of the victim's being able to stand the ordeal of its removal.

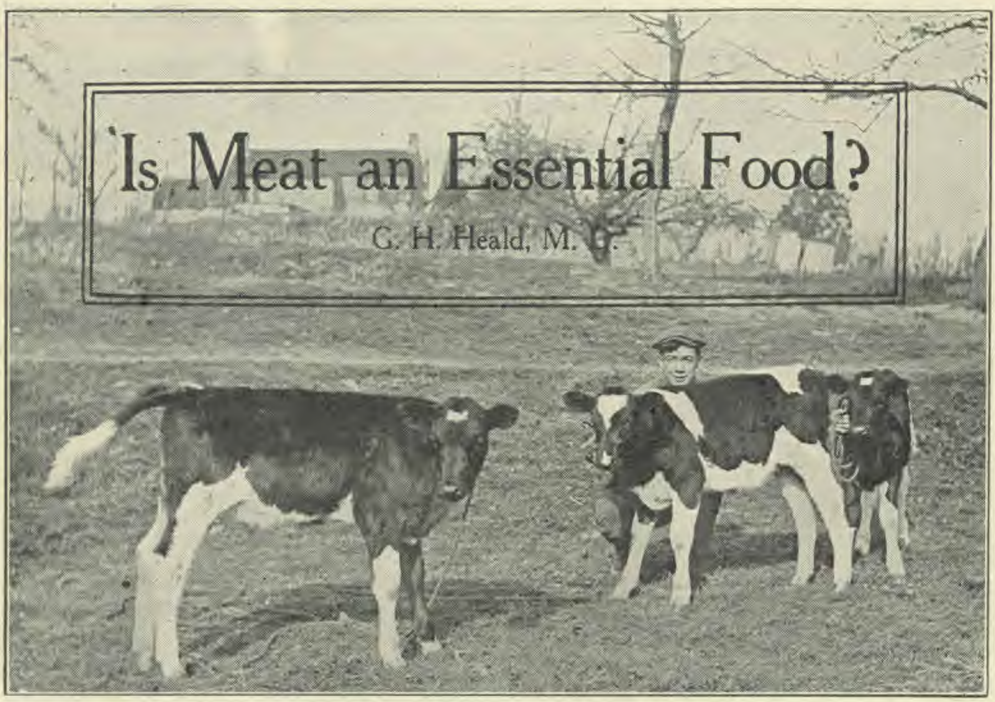
Other analogies might be drawn. Let us draw one contrast. In cancer there comes a time when there is no hope. In sin, a man may, as long as he is aware of his sinfulness, have hope, and may come to the Healer with the assurance that his case will have immediate and successful attention, if he is willing to be rid of the thing that will certainly destroy him unless he does come; but if he keeps putting off the application of the remedy, there comes a time when for him there is no hope of a future eternal life.

Work Awaiting the Missionary Nurse

(*Continued from page 24*)

human aid. The parents are Christians, so they ask, "Why has God dealt so with us?" You talk and pray with them, comforting them the best you can.

The missionary meets many sad experiences like this in these dark lands. Our hearts cry out for help. Here, as in many other places, we need trained nurses. Will not more of our people in the homeland consecrate their lives and their money to this work? "Hearts will be touched and souls won to Christ through the missionary nurse, that would never be reached in any other way."



Is Meat an Essential Food?

G. H. Heald, M. D.

THERE are a number of reasons why just at this time we Americans, very nearly the largest consumers of meat in the world, should review carefully the arguments in favor of a meat dietary in order to see whether they are sound.

1. With the rapid increase in population and the corresponding decrease in the acreage of grazing land, this country is fast approaching the time when it will no longer be possible to furnish meat in anything like the required quantity. This process is going on also in other countries. The natural result is that meat will soon reach prices prohibitive for any but the well-to-do.

2. The exigencies of the war demand just now a special reduction in the amount of meat consumed.

3. The acreage that will produce one pound of beef protein will produce something like fifteen pounds of corn or wheat protein. Thus the question of lessened meat consumption is one of great economic importance. A given acreage will support a much larger population on vegetable food than it will on animal food.

But if meat furnishes to the body some necessary ingredient not furnished by the plant kingdom,— something that makes for the health and efficiency of the human race,— such economical reasons for adopting a vegetarian dietary fall like a house of cards, and we should continue to raise and to eat freely of meat at all hazards, as long as we can get it. The question is, Is there any real proof that meat furnishes anything to the body not obtainable from other foods?

In general there is a fixed opinion in America and Europe that a "mixed" dietary is far superior to a vegetarian dietary. It is questionable whether even this proposition can be definitely proved; but as generally understood the proposition is that a diet containing a fairly liberal amount of flesh meat is superior to one in which flesh meat is absent. For this latter proposition there is not the slightest scientific proof. Every student of nutrition knows that meat furnishes absolutely nothing of value that cannot

be furnished equally well by eggs and dairy products, or by either one. And yet the very ones who, being questioned, will admit this, will in their directions for a dietary almost always insist on some meat. So much for prejudice.

"Why," the reader may ask, "should I fly in the face of received scientific opinion and practice, and advocate a dietary which by common consent is judged inadequate? Why should I number myself among the martyrs and food cranks and faddists who for the sake of an idea are willing to risk their own health and that of their fellows?"

Before replying, we might turn aside to ask, When has it ever been shown that the commonly received notions regarding diet or medicine, or almost anything else, are right? What great discoverer of some new truth has there been who did not have to suffer from his own generation the odium of being a crank? Of course, a crank or a faddist is not by any means necessarily a discoverer or a reformer. More often he is a fool. This question is asked merely to suggest to the reader that a belief is not necessarily right because "everybody" or even the "authorities" believe it. "Everybody" and the "authorities" are wrong on many things.

What five years ago was the commonly received notion regarding the prospects of a world war and our participation in it? What ten years ago would have been the commonly received notion regarding the possibility of fighting in the air and under the water? What of the possibility of talking around the world by wireless? I refer not only to the unlearned, but to the learned. The man who really invented the airplane died of grief because he could not induce any one to consider his heavier-than-air machine seriously. He was simply a "harmless crank," a "Darius Green," though an officer of the Smithsonian. The fact is, most of the things that are "sure so" because everybody knows them to be so, are just the things that are eventually shown not to be so. Not a decade passes but some commonly received notion or prejudice is exploded.

But this notion of the necessity of a high protein ration containing a considerable quantity of animal protein, including some meat, seems so thoroughly established that it will not down. The fact that wherever vegetarians and meat eaters have entered into an endurance contest together, the vegetarians come off with an easy victory, counts for nothing.[1]

To show to what extent prejudice will warp a man's judgment, it may be stated that this race was supervised by Dr. Caspari, who had two of the men, a vegetarian and a meat eater, under observation during the training and the race, and he attributed the vegetarian victory to pure luck! He himself was a meat eater.

The fact that physiologists have shown that nitrogen equilibrium can be maintained on a quantity of protein less than one third of the accepted standard,[2] counts for nothing.

The fact that vegetarians under careful observation have been shown to maintain a high state of health on a diet very low in proteins,[3] counts for nothing. The fixed ideas which are the common property of the community require a strong charge of dynamite to dislodge them. Possibly the necessities of the present war and the growing scarcity of meat will cause people to consider the subject with open mind. It is an encouraging sign of the times that even

[1] For instance, in 1898, in a walking match of over seventy miles (113 kilometers) there were twenty-three contestants — eight vegetarians and thirteen meat eaters. The first six to finish were vegetarians, coming in almost together in fine condition. Only one of the meat eaters succeeded in finishing, and he came in half an hour after the first vegetarian. The others had given up. The victor, Karl Mann, who covered the distance in fourteen hours and eleven minutes, lived entirely on fruit, salad, milk, and bread. He should be called rather a lacto-vegetarian.

In 1902 there was another race, from Dresden to Berlin, 125½ miles (202 kilometers), in which Mann was again victor. Of the thirty-two men who started, the first five to reach the goal were vegetarians.

[2] Of 120 to 128 grains of protein a day. Professor Chittenden has demonstrated by repeated experiments that physiological nutrition can be maintained on sixty or even forty grains of protein a day.

[3] Hindhede proved by long years of experience in his own family that one can be well nourished on as low as twenty grains of soluble protein daily. More regarding this later.

medical journals are coming to admit that we eat far too much meat, and some of them go so far as to admit that with eggs or milk we could get along with no meat. That, perhaps, is as far as we would care to lead the people for the present, though we wish it fully understood that there are true vegetarians who use no animal food of any kind, and who have maintained themselves in health and efficiency for years on a diet consisting largely of fruits, nuts, and vegetables.

J. T. Trowbridge, author of "Darius Green and His Flying Machine," greeting a British aviator.

It will not be the purpose of this series of articles to urge the adoption of such a diet, but rather to demonstrate that the use of flesh meat in any form is not necessary to health. We believe, and think it can be proved, that the use of flesh often works serious injury to the body, and that in any case the free use of meat involves the use of an excessive amount of protein, which is a source of danger. But that is another matter; we now desire to show that the use of meat in the diet is not essential to health.

A DIETETIC ADVENTURE

When scientific authorities are in practical agreement regarding a proposition which has seemed to withstand all criticism, it takes courage for a man well versed in the history of the science, to champion an opposing opinion. An obscure or ignorant person can champion new views with impunity, for his work will be ignored by scientists, and in any case, he has no reputation to lose. At the most he may win a little brief notoriety, and any kind of notoriety is craved by some persons. But the conscientious investigator, jealous of his reputation, is careful, when he has reason to disagree with the prevailing opinion, to check up his work with extreme care, in order to be sure he is right, before committing himself publicly to an unpopular and novel propaganda.

Dr. Mikkel Hindhede, one of those whose studies and observations afterward compelled him to dissent from the established teachings of science, was graduated in 1888 from the University of Copenhagen with the highest honors granted by that institution since 1847. The university desired to retain him as instructor, but he preferred to labor among his former neighbors, the West Jutland farmers. It was his observations of the diet of these peasants and their rugged health that led Dr. Hindhede to question the validity of the high protein ration supposed by Voit, the great German authority, to be essential to health and efficiency.

As the result of a prolonged study of the nutrition of man and animals, he had his conviction deepened, that too much importance had been laid on protein as a part of the food. He therefore began a campaign of education with the farmers, and succeeded in persuading many of them to lessen the protein ration for their cattle, thereby diminishing the cost and improving the condition of the animals. This work, together with the extensive investigations in human nutrition, induced the Danish government to furnish him a nutrition laboratory. Since 1911, with five assistants he has conducted an extensive series of experiments in human nutrition.

Dr. Hindhede has published an interesting book, the English translation of which was published in London in 1913,[1] in which he carefully reviews the argu-

[1] "Protein and Nutrition," by Dr. M. Hindhede Director of the Laboratory for Nutrition Research, established by the Danish government. London: Ewart, Seymour & Co., Ltd., 1913.

ments of Voit, and shows on what a flimsy foundation they are based. He then takes up the work of other investigators, and describes at some length his own work.

But most interesting to the ordinary person, perhaps, is his description of his personal and family experiences. He did not begin as a vegetarian, and in fact has not advocated strict vegetarianism, though in practice he consumes very little animal food. In recounting one of his early experiments he said:

"I could not agree with vegetarianism in theory, but for all that there might be some virtue in it. I gave it a practical test. For one month I restricted myself to a purely vegetarian[5] diet; and what is more, selected only those foods as poor in protein as I could think of. I lived chiefly on butter, bread, potatoes, sugar, and fruit — especially strawberries. I wanted to find out how long I could live on such a limited amount of protein. Of course it was not my intention to prolong the régime until death threatened; I merely wished to keep to it until I felt myself becoming really weak. To make more certain, I applied myself, meanwhile, to vigorous physical exercise, such as gardening, cycling, etc. But strange to say, no infirmity evidenced itself. To the contrary, I experienced excellent health. I never had the feeling of tension and sluggishness which usually follows the consumption of a good beefsteak. With the end of the strawberry season I relinquished my assumed part.

"But these experiments, which were afterward repeated with many variations, had convinced me of one fact, and that was that the little story of 4.2 oz. of protein is nothing but sheer fable; since which time — now some seventeen years ago — very little meat has been eaten in our home, and most days we have none at all. I am always exhorting my children to eat plenty of porridge, bread, and potatoes, and very sparingly of meat, eggs, etc."

He shows a picture of his youngest daughter, aged ten, a beautiful girl, who in the picture appears to be sixteen. She was born after he began his "half vegetarian" régime, and received "according to old ideas, very poor and insufficient nourishment." She was, he says, very strong and well built for her age, in fact, compared favorably with girls of thirteen. All his children, he says, were taller and heavier and greater in chest girth than children of their own age,— a certain evidence that they had not been stinted in their food. His child Anna, whose weight did not so markedly exceed that of children of her own age, was the one most partial to meat.

With such an experiment going on in his family from day to day, it is not at all strange that Dr. Hindhede is a confirmed advocate of a low-protein diet. He goes on:

"It must be remembered that it was seven years ago when the foregoing was written. The ages of my children now range from seventeen to twenty-three years; and though I am personally reluctant to sound the praises of my own family, I may be pardoned if I mention that I have often heard from other people such remarks as the following: 'The best recommenda-

Holstein Cows in West Jutland, Denmark.

[5] He means nonmeat.

tion of your ideas is that your children are so physically robust and mentally active!'"

Admitting that there are many children of poor families who are poorly developed physically and mentally, he ventures the opinion that it is not because of a lack of albumin in their food, but because of too much coffee or cigarettes.[6] He continues:

"On comparing the experiences related above with the experiences of patients, I gradually came to the conclusion that nearly all of us overeat. It is certain that we could be satisfied with less aliment, and particularly with less protein than we think. I have a suspicion that a vast number of ailments — disorders of the stomach, nerves, liver, and kidneys, not to mention gout — are to be attributed simply to overfeeding."

It may be added that though the accepted standard for protein, based largely on the teachings of Voit, and on the dietary customs of people who have the means to purchase whatever they want, is in the neighborhood of four ounces protein, or about 120 grams, Chittenden asserted, as a result of his investigations, that it is possible to maintain physiological nutrition on half that amount or less, and Hindhede asserts that he has lived for years on what would be less than one fourth that amount. In fact, he believes that it would be difficult to get a diet that would be deficient in proteins.

But in view of what we now know regarding incomplete proteins, it would seem quite possible to be undernourished on protein as a result of living on a restricted vegetarian diet. That is, if one were to get all his protein from cereals, or from legumes, or from some other restricted source, he would probably soon show evidences of malnutrition.

Moreover, we now know that certain foods once thought to be complete foods are not so. The wheat grain, for instance, supposed to be the staff of life, has an incomplete protein, and is lacking in mineral salts, and in the growth accessory known provisionally as "Fat-soluable A," so that an animal fed entirely on the wheat berry or on a mixture of grains, will not thrive. Any one who has had to do with feeding a horse knows that if it has been fed largely on grain, it will do almost anything to get green feed. The green feed supplies some of the lack in the grain. The fact that cabbage or spinach will supply some of the elements lacking in, say, granose biscuit or toasted corn flakes makes the statement of a certain great physician and surgeon and dietitian, that "vegetables are not fit to eat," somewhat laughable.

[6] From recent researches, we are justified in believing that in the case of the poor the lack may be some of the so-called "vitamines," or food accessories, which might be absent in a restricted diet. These substances would be present in the small amount of meat eaten in Dr. Hindhede's family, or in milk, or eggs, or green vegetables.

MILK

A Most Valuable Food

G. H. Heald, M. D.

MILK is one of the most necessary foods. Notwithstanding the many opportunities for contamination and for the transmission of infectious disease by milk, which render the sanitary control of the milk supply a perplexing problem, we should be hard pressed to find a substitute for it. For feeding babies where mother's milk is not available, cow's milk is an almost absolute necessity.

Not only is milk one of our most necessary foods, it is one of the most economical. It has always been an economical food, but much more so since the price of other foods has advanced fifty to one hundred per cent or more, and milk not over twenty-five per cent.[1]

Against every attempt to increase the price of milk there is such an outcry that the price has advanced very slowly; and some dairymen, confronted by higher prices for feed and help, and seemingly unable to raise the price of milk proportionately, have followed the line of least resistance. Having been offered tempting prices for their dairy cows, they have sold them to be slaughtered for beef. Moreover, the high price of feed, making the raising of calves expensive, and the high price offered by meat men for calves, have led to the slaughter of numerous heifer calves, which in normal times would have been kept for dairy purposes.

If this process continues, there will soon be a veritable famine in milk products, and we shall be paying unheard-of prices for milk and butter, or doing without them. If the price of milk increases a cent a quart, let us not begrudge it, for if the dairy business remains unprofitable, because of the low price of milk, more and more of the cows and calves will be diverted to the slaughterhouse, and there may be a rise of several cents in the price of milk.

In order that our readers may have a better realization of the fact that milk is the most economical of the animal foods, we give a number of comparisons which show that at current prices either whole milk or skim milk is a cheaper food than meat or eggs. The figures are based on an estimate of two pounds to a quart of milk,[2] ten eggs to a pound, and on meat of average composition.

Milk at eight cents a quart is as cheap a source of protein as loin steak would be at 19.2 cents a pound. Milk would have to be fifteen cents a quart to cost as much for its protein as loin steak at thirty-six cents a pound. Other comparisons follow:

Milk at	8.0	9.0	10.0	11.0	12.0	13.0	14.0	15.0 cents per qt.
Loin steak at	19.2	21.6	24.0	26.4	28.8	31.2	33.6	36.0 cents per lb.

As a source of *fat*, milk at 8 cents a quart is as cheap as loin steak at 17.6 cents a pound; at 10 cents a quart, as cheap as loin steak at 22 cents a pound. As a source of *heat and energy* (calories), milk at 8 cents a quart is as cheap as loin steak at 12.8 cents per pound; at 10 cents a quart, as cheap as

[1] Milk has advanced rapidly in price since this article was written. What was predicted has come to pass.

[2] A quart of milk actually weighs more than two pounds.

loin steak at 16 cents a pound. Therefore, milk at its present price is much cheaper than loin steak, either as a source of protein, or of fat, or of energy. Even at 15 cents a quart, milk would not be an extravagant food as compared with loin steak.

Milk is also cheaper than eggs. At 8 cents a quart milk is as cheap as a source of protein as eggs at 17.2 cents a dozen; at 10 cents a quart, as cheap as eggs at 21.5 cents a dozen.

Other comparisons are:

Milk at	8.0	9.0	10.0	11.0	12.0	13.0	14.0	15.0 cents a qt.
Eggs at	17.2	19.4	21.5	23.7	25.8	28.0	30.1	32.3 cents a doz.

Even as a source of *fat*, milk is cheaper than eggs. At 8 cents a quart milk is as cheap as a source of fat as eggs are at 22.4 cents a dozen; at 10 cents a quart, as cheap as eggs at 28 cents a dozen; at 15 cents a quart, as cheap as eggs at 42 cents a dozen. Eggs now rarely get to be so cheap a source of nutrition as milk would be, even at 15 cents a quart.

When we come to that despised and neglected food, skim milk, that has been fed to the hogs to get rid of it, we have a still more economical source of nutrition. In this time of food scarcity, such a source of nutritious human food certainly should not be neglected.

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Milking Goats in Norway

Of course, the handling of the milk should be so supervised that the opportunities for contamination will be reduced to a minimum. There should, however, be no difficulty about this. In order to have first-class butter, the milk must be scrupulously guarded from contamination until it goes into the separator. It should be an easy matter to keep the skim milk clean as it comes from the separator. As an additional precaution, it might be Pasteurized or boiled.

At 3 cents a quart, skim milk is as cheap a source of protein, as chuck rib at 8.2 cents a pound. Other comparisons are:

Skim milk at	3.0	4.0	5.0	6.0	cents a qt.
Chuck rib at	8.2	10.9	13.7	16.4	cents a lb.

It is even more economical as a source of *energy*. At 3 cents a quart it would be as cheap as chuck rib at 5.1 cents a pound. At 6 cents a quart skim milk would still be a cheap food.

Compared with eggs, we have in *protein value* skim milk at 3 cents a quart equivalent to eggs at 6.3 cents a dozen. It would have to sell for more than 20 cents a quart to be as expensive as eggs at the present prices. In energy value skim milk is nearly as cheap, 3 cents a quart being equivalent to 6.7 cents per dozen for eggs.

Thus it is seen that whole milk or skim milk is a very much more economical food than either meat or eggs.

Regarding their general food value, milk is a very much more complete food than meat, as it is nature's food, prepared to nourish the growing mammal, — to build muscle, nerve, bone, and every tissue in the body. Meat, on the other hand, does not have in it the material, for instance, to build bone. The carnivorous animals, in order to obtain a complete food, consume the flesh, blood, skin,— in fact, nearly the entire carcass. Egg is a more complete food than meat, though it lacks lime, which is abundant in milk. Milk, on the other hand, is lacking in iron, which is best supplemented by the use of green vegetables.

The High Calling of Cooks

L. A. Hansen

THERE are good prospects that as a result of the war and food crisis, we shall see much better cooking in this country than we have hitherto known. It hardly seems a proper thing to speak of this as a by-product of the war; the consequent food conservation movement for good cooking does not fall into the class of by-products. It is something of prime importance. But the interest that has been aroused in all phases of the food question has turned much attention to the subject of cooking, and the fact that many women have learned a great deal about how to cook better will afford a measure of compensation for hardships due to food shortage.

The feeding question is not one of filling so many stomachs; neither is it one of disposing of so much foodstuff. Eating is not simply a mechanical process of consuming something; and cooking should mean more than merely changing food from a raw state to what is commonly called "cooked." The preparation of food material so that it can properly support human life and be made into human bodies capable of the highest service, is a thing worthy of conscientious application and devotion. The close relation of eating and drinking to health and morals, makes food preparation akin to religion. We may say that it is a religious duty for those who cook, to learn to do it well. To prepare food so that it will be palatable and yet healthful, best adapted to the wants of the system, requires a skill that does not come by chance.

Bad cooking does not make good living. Sour bread and sour temper go together. Poor cooks spoil not only good food material, but help to wreck lives. Many a digestion has been ruined by improperly prepared food, and with it has gone health and happiness. And who can tell the number of souls that have been lost because ill health has hindered the exercise of a clear mind to discern right principles?

Good cooking covers more than knowing how to meet a war emergency; its acquirement is a blessing of permanent value. It is well worth all the time and trouble that women are now giving to it. Its place in the economy of life is second to none in importance. If, instead of leaving this most important of all household duties wholly to ignorant or indifferent servant girls, mothers will make it their own responsibility to know that the cooking for their households is the best that can be produced, we shall see better days, not only in culinary matters, but in many other things pertaining to home life.

PROBLEMS of

MEDICAL science has amply justified itself in that it can show as a result of its activities a material saving of human life. In every country where there has been concerted action to eliminate some of the most potent causes of high mortality, there has been a steady and marked lowering of the death rate. But thus far this saving has been largely confined to the first decade of life. We are increasing the average of human longevity because we are lessening the number of baby funerals. A very much larger proportion than formerly of the babies born into the world are given a fighting chance for their lives.

But there is no corresponding saving of life among those who have passed their prime. We do much to save babies' lives; we do practically nothing to save the lives of men of forty years and onward. Statistics indicate that at the advanced age periods the mortality is even higher than it was formerly. The reason for this is to be attributed, partly at least, to the high pressure of modern life, partly to the increased use of artificial stimulants to keep up the high pressure, partly to excessive indulgence in the use of foods. According to some physicians, there is nothing that so rapidly wears out the organism and prepares it for the senile scrap heap, as liberal feeding after the powers of assimilation have begun to wane.

During early life, rapid growth and assimilation and vigorous exercise necessitate a liberal supply of food. The healthy youth experiences real hunger, and assimilates what he eats. He is usually satisfied with an abundance of plain, wholesome food. With the advance in age, the tendency to exercise less, and

A FEATHER IN

e AGING

By G. Henry Hale

MOTHER'S CAP

the decreased assimilation, there is less demand for food, and hunger is not so keen as in earlier years. This is nature's signal to diminish the quantity eaten to a point where natural hunger will again assert itself. But too often the signal is unheeded. Foods are served a little more attractively, various devices are resorted to in order to whip up a jaded appetite, and the same quantity of food is eaten as during the more active years. The extra burden thrown on the organism by this heavy feeding hastens the wearing-out process.

Very many persons past middle age are seriously impaired without knowing it. An examination of the employees of the New York City Department of Health — apparently in average health or better — showed that a considerable proportion of them had, unknown to themselves, serious affections destined, if uncared for, to shorten their lives. Life-insurance experts, as a result of the study of many thousands of deaths of policyholders, have learned that in the fifth and sixth decades of life, owing to the increased prevalence of degenerative diseases, the mortality is steadily increasing.

With this knowledge in our possession, and remembering that these old-age troubles come on stealthily and in a way not to cause alarm, we should be on our guard, and especially after the age of forty-five watch for evidences of approaching senility. It is true, old age should not be ushered in so early in life, but in many cases, owing to a bad heredity or to faulty habits of living, the symptoms of approaching decrepitude are in evidence even earlier than this. In order to prevent further damage to the aging organism, it is important that

the person concerned and his near friends be able to read the signs saying plainly to him who can understand:

"DANGER AHEAD! GO SLOWLY!"

This does not mean that one who is passing the prime of life should have the specter of old age always before him. There is nothing, perhaps, that so rapidly ages a man as the conviction that his best days are over.

There are really two ways of hastening the advent of senility. One is to go ahead at intense pressure, eating voraciously, and dissipating, forgetful that there is such a thing as old age; the other is to begin noticing symptoms of advancing age, and to worry and fret about the future, giving up easily when disability begins to appear. It is hard to say which of these is the more disastrous. There is a middle way, in which the need of caution is fully realized, and in which, notwithstanding, the forward look is optimistic, and the effort is made to maintain with moderation the ways and feelings of youth.

Among other things, one who is growing old should know from his family history to what diseases — such as tuberculosis, cancer, gout, kidney trouble, nervous disorder, etc.— he is most liable to be susceptible, and what special means he should use, in order that he may, as far as possible, overcome this inherited susceptibility. One will gain much by having a family medical adviser, who should at least once a year make a complete and thorough examination of the organism and its functions, in order to detect in its incipiency any trouble that, if uncorrected, might prove serious. Life-insurance companies, anxious to conserve the lives of their policyholders, urge upon them the importance of such examinations.

Another important requisite is to be able to recognize the signs of approaching decay — not to induce discouragement, but to enforce the necessity of caution. One of the early signs of decay is a feeling of unusual fitness and exhuberant vigor, mental and physical. The victim, though in need of slowing up in work and diet, is spurred on by his internal secretions, imagines that he was never better in his life, and is liable to undertake tasks whose completion will involve an expenditure of energy which he cannot well afford. This condition of undue optimism may continue until some excess of work or some indulgence throws the ammeter from "charge" to "discharge," and the victim is brought suddenly to a realization of the fact that he is unequal to his task, and his optimism suddenly changes to pessimism and discouragement. Then will begin, perhaps, a course of tonics and stimulants, and of diversions, and of seeking help in almost any but the right way. At all hazards, the old pace and the old

method of eating and indulgence are kept up, and these, together with the use of stimulants, hasten the final ruin. The prevention of this disaster lies in heeding the signs and following the admonition,

"DANGER AHEAD! GO SLOWLY!"

Among the physical signs of aging are: Partial failure of the circulatory apparatus, manifested perhaps by a perceptible heart beat, or an altered rhythm after comparatively slight exertion; partial failure of the digestive system, manifested by a more fickle appetite, which requires special pampering, and by the fact that many foods which formerly were eaten with impunity now cause disturbance; gradual failure of muscular power, or at least of the youthful muscular "vim;" gradual failure of the metabolism, indicated by failure to produce sufficient heat, with a tendency to chilliness and a necessity for more clothing; gradual failure of the pelvic functions, manifested by constipation and urinary disorders; gradual failure of the special senses,— hearing, smell, taste, vision, etc. These and other changes which might be mentioned are by no means necessarily simultaneous, nor do they come in the same order. A person may be seriously affected in one function, and be apparently normal in others.

Among the mental and moral changes incident to advancing age, which ordinarily should not appear until the seventies or eighties, or later, but which may appear in the forties or even earlier, are: Slight but increasing carelessness regarding the toilet and personal appearance; forgetfulness of duties, tasks, and appointments; forgetfulness of names and words; gradual loss of vocabulary; loss of power of concentration and recollection, especially for recent events; indifference to current events and surroundings, and a tendency to engage in introspection; sometimes a partial loss of moral sense. The conscience of the old man may not be nearly so keen as that of the younger man.

In order to retard as much as possible these degenerative changes, the following procedures are suggested: For one who suddenly acquires new ideas of his powers and his importance, and who is prone to inaugurate ambitious schemes and to attempt excessive tasks, a wise counselor is needed. The aim should be, not complete rest, which would be nearly as bad as overwork, but moderation in work, in exercise, and in eating. It will take a person of considerable strength of character to dissuade the ambitious elderly man from some of his schemes.

For the person who, through loss of position, through demotion, through failure in his work, or through consciousness of failing powers, begins to realize keenly that he is going down hill, the best medicine is some kind missionary who will help him to take an interest in outside affairs, and who will plan for him such occupations and recreations as will keep his mind busy without overtaxing it. Anything involving perplexity, disappointment, or annoyance should be carefully avoided.

Things to be avoided by one who desires to conserve his powers are: Excesses of all kinds, as in eating, exercise, excitement, etc.; all sources of mental and emotional agitation; inactivity, and everything that will tend to cause the feeling that his usefulness is over.

Smoking is Harmful to Athletes.

Some Effects of Tobacco

G. H. Heald, M. D.

OF the many cartoons drawn to illustrate the effect of the present war on the drink question, one represented "booze" in a condition of sorry dilapidation, saying, "Sherman was right!" The allusion is plain to all who recall General Sherman's three-word definition of war. The present conflict has unquestionably done much to hasten the end of the drink evil. This result has been brought about largely because it has become common knowledge that the free use of liquor is disastrous to the men who form the units of the national defense, and the opinion is gaining strength among men at the head of affairs that drink is too great a source of national weakness to be disregarded in this time of crisis. The belief has become more or less general that the side that succeeds in approaching nearest to a condition of general sobriety will have a better chance of winning the war. It is this winning-the-war consideration that, more than anything else, has helped to crystallize just at this time the intense sentiment in favor of prohibition in this country.

But we find no such concensus of opinion regarding tobacco. The impression is quite general that not only is the use of tobacco harmless in the army, but its deprivation to those addicted to its use, would make them unfit for efficient service at the front. The reason for this is readily understood: Tobacco is a sedative — a deadener of sensibility. When one is a "bundle of nerves," tobacco takes off the rough edge and makes life endurable. True, this is only a temporary effect, followed sooner or later by a repetition of the "nerves," and hence a need from time to time for more of the sedative drug. Thus the fact that the soothing effect of tobacco is only temporary not only does not militate against its use, but perpetuates its use. The very fact that tobacco does soothe, and that one who has become used to its soothing influence is all the more in need of continuing the sedative effect from time to time, makes the sentence, "Once a customer, always a customer," almost literally true. If the tobacco trust can induce a boy to experiment with tobacco, it is ten to one, perhaps a hundred or a thousand to one, that the boy will become a life contributor to the dividends of the trust. No man pays taxes to the government for legitimate

use half so willingly as the devotee pays into the profit coffer of the tobacco trust.

If tobacco is a solace in civil life, much more so is it on the battle field. Even to one whose nerves are normal, the sights and sounds, the uncertainty, the constant witnessing of pain and death under the most diabolical conditions, must be nerve racking. Much more so to one whose nerves have already been rendered unsteady by tobacco or other harmful indulgence, the conditions at the front would be unendurable if there were not more tobacco to continue the process of anesthesia. The idea that tobacco produces a condition of anesthesia may be startling to some, but the fact is, tobacco acts very much like an anesthetic, not to relieve pain, but to lessen nerve tension. Morphine in proper dosage would do the same thing.

One can readily understand, then, why when farmers are being urged to turn every possible acre to the production of foods, and when the effort is being made to divert grains from the distilleries and breweries into legitimate channels, there is no government effort to influence tobacco planters to turn their acres to the production of food. The reason is that there is a very general belief that tobacco is a help rather than a hindrance to the prosecution of the war, and that a failure of the tobacco crop would be a real disaster to the men at the front.

In view of the fact that the use of tobacco in some forms is well-nigh universal, and that many believe that the use of tobacco under some circumstances is a distinct benefit, it might be worth while to consider candidly some of the effects of tobacco, so that those who are not already addicted may be led to shun the habit, and others may free themselves before the habit has gripped them too firmly.

It may be admitted at the outset that like other indulgences, the use of tobacco to one who has become accustomed to it, affords considerable satisfaction. It is a pastime, it is company when one is lonely, it calms when one is unstrung. These are its early effects; but steadily, if slowly, it is making the nervous system of the user more susceptible to shocks, more "irritable," more dependent on a continuation of the sedative effect of tobacco; and after a longer or shorter period, according to the individual, tobacco is no longer used as a pleasure, but as a defense against the train of nervous symptoms its use has caused. The habit has been formed and now must be continued, with no longer the satisfaction that accompanied its first use, but with misery when a supply cannot be obtained. Thus the devotee who took up the habit as a pleasurable pastime continues it as an unwilling slave.

Does it cost money? Count up the shoes or the bread or the other useful articles which the money spent for this indulgence would buy, and you will be surprised. Perhaps there are business reverses or sickness or some other reason why the family budget must be drastically reduced. Of course the first expenditure to be cut out is tobacco? Oh, dear, no! The devotee *must* have his tobacco if every child has to do without shoes or go on part rations of food. Tobacco has become a prime necessity, to be obtained, if need be, in preference to food or clothing.

Is this an exaggerated statement? Look into the record of any family that has to be helped by the Charity Associations, and learn whether the head of the family in order to help make ends meet, has given up his tobacco. Such a thing was probably never heard of. So tobacco is a costly indulgence, robbing a man of his nerve control, and the rest of the family, if it is a poor family, of some of the necessities of life.

Regarding the direct effect of tobacco on the user, a few quotations from experts may suffice. We have never thought the propaganda wise which attempts to show that tobacco invariably wrecks a man. There are too many tobacco users in apparently normal health for the success of such a propaganda. The reader is likely to reason that if the

picture is overdrawn, it is utterly unreliable and not worth serious consideration. Thus the overzealous writer defeats himself.

In this article we purpose to show by the words of those who have had abundant opportunity to know whereof they speak, that one who uses tobacco is damaged both physically and mentally. The damage may not always be apparent to the superficial observer or to the person himself; but the fact is demonstrated that when a person becomes addicted to the use of tobacco, he is not quite so efficient mentally or physically as he would have been without it.

Some will say, "If that is all you have against tobacco, then I shall use it in moderation and get what enjoyment I can out of it." The answer is, that in this time of strenuous competition, the apparently small difference in efficiency caused by some habit, may be sufficient to cause one to fail to get some very desirable position which he might otherwise have filled creditably. Moreover, when one begins the habit, he has no means of knowing how strong a hold it will gain over him and to what excesses in its use he may be driven.

But to come back to our authorities. I have in my possession numerous letters from gymnasium directors, from principals of schools, and from superintendents of schools,—men who have had ample opportunity to make first-hand observation,—stating in unmistakable terms that the effect of tobacco on boys is bad, physically and mentally.

Careful records of college boys have been taken during their college course, which show that the boy who smokes does not develop so rapidly either in height, weight, or chest capacity, especially the latter, as the nonsmoker. Superintendents of reform schools for boys have testified that tobacco is bad for boys, mentally and morally. One statement from the Whittier Reform School is especially significant. The law forbids the use of tobacco in the school, and severe penalties are inflicted when a boy is found with tobacco in his possession. Nevertheless the boys get hold of tobacco in some way. To quote: "We can generally tell when there is a supply of tobacco in the school, by the conduct of the boys themselves, and in particular by the poor work which they do in the schoolroom."

Successful men whose work demands employees with steady nerve do not want tobacco-using employees. Such men are: Luther Burbank, the plant wizard; Thomas A. Edison, the electric wizard; and Henry Ford, the automobile magnate. These men know what tobacco in the form of cigarettes does for young men, and Mr. Ford has written a forceful booklet against the cigarette.

The following from an article by Edward H. Cleveland, M. A., in the New York *Medical Times*, states the case tersely:

"The defenders of the habit, in their efforts to find excuses for it, have furnished some of the strongest arguments against it. No one doubts that these arguments, when presented fairly and without exaggeration, would have greater influence in correcting the evil were it not for the positive effects of the poisonous drug in dulling the senses of those who use it.

"We are not speaking of excessive use, but of moderate use, be it noted. Aside from the well-known principle that moderate use leads to excess, and always tends in that direction, as experience abundantly proves, no one defends the excessive use or abuse of tobacco. Not a single advocate or apologist for its use will venture to claim that the excessive use is beneficial.

"All agree that tobacco is a poison, to be used in moderation, if at all. This article is written to remind its readers of the very simple proposition that the habitual smoking of tobacco in moderation will, if given time enough, produce similar results in the heart, brain, stomach, lungs, and other vital organs to those brought about more rapidly by smoking to excess."

George L. Meylan, A. M., M. D., Medical Director, Columbia University,

after an experience of twenty-four years in teaching hygiene and physical education to boys and young men, expresses himself as convinced "that tobacco is injurious to growing youths."[1] The boys under his observation included few who had begun smoking before the age of sixteen or who smoked excessively. He found, of course, that the effect of tobacco varies in different individuals. The effects which his observations teach him are attributable in part at least to the use of tobacco are "rapid and irregular pulse (100-120); poor circulation, manifested by pallor of skin and cold extremities; poor 'wind' and lack of endurance; nervousness and irritability."

Harry L. Hillman, Director of Athletics in Dartmouth College, says: "Smoking is certainly harmful to boys and young men. Athletic sports are the best means of finding this out. An athlete who uses tobacco is very apt to injure his heart, and usually the blame is labeled 'Athletics.'

"A tobacco user lacks energy. His training is hard work rather than a pleasure, his digestion is not what it should be, he is unreliable in competition or in a pinch, he cannot recuperate rapidly after a hard struggle, and he does not repeat as readily as one who does not use tobacco."

Michael J. Donovan, for thirty years athletic director of the New York Athletic Club, says: "I consider a man is very much better off physically if he does not smoke. It goes without saying that a boy or young man who has not attained his full growth, should never consider smoking. I cannot give better advice to any one than I do to my own son, to whom I have already said, 'Don't smoke and don't drink, and your battle is half won.' . . . If a boy or young man expects to amount to anything in athletics, he must let smoking and all kinds of liquor alone. They are rank poison to his athletic ambitions."

Nathan P. Staffer, M. D., formerly Professor of Hygiene, Dickinson College, and Head Coach of the University of Pennsylvania baseball team, says:

"Smoking positively affects young boys and men injuriously. Smoking irritates the nervous centers, which overstimulates the whole nervous system, accelerates the heart, thus tiring it, and when the supreme test of the race comes, it cannot stand the strain, and the competitor falters and loses what he most desires to gain."

Joseph E. Raycroft, M. D., Professor of Hygiene and Physical Education, Princeton University, said: "I am satisfied that the habitual use of tobacco does have a definitely bad effect upon the majority of growing boys and on many adults. The kind and amount of damage that is done varies in each case, depending upon individual differences in temperament, physiological tolerance, and extent of the habit."

Walter Camp, A. B., of Athletic Counsel to Yale University, said: "Smoking is detrimental to young boys from an athletic standpoint."

It is true that many of these and other observers believe that tobacco is not so injurious to adults as to younger persons. But it is to be remembered that some of the worst effects of tobacco, as blindness, cancer, and the like, come upon men grown old, who have formed too great an attachment to give it up.

Gen. U. S. Grant, and his son, Gen. F. D. Grant, were both inveterate smokers and both succumbed to smoker's cancer. These men of strong character were not strong enough to throw off the tobacco habit, even though they knew the fearful cost of continuing the practice. And they are conspicuous examples of what is constantly occurring. It is not only the youthful tobacco user who is injured. Often the severest suffering comes to the lifelong user, who is forced on account of threatened disaster to give up a habit which has become to him as dear as life itself.

Why tamper with such a habit?

[1] This and the following citations are from the "Medical Times."

Work Awaiting the Missionary Nurse

Mrs. Myrtle W. Yates

COME with me, and we will enter a narrow, dirty lane which leads to a Malay *kampung* (village). Here, in a house set up on stilts, with a low thatched roof, we have been called to give help. The house contains a few small rooms, where about a score of people live. We must climb up a half dozen ladder steps, then turn and enter a small room through a low, narrow door. You will need to blink hard, for your eyes are not accustomed to the darkness. The only place where light and air can enter, besides the door, which is always kept shut, is a small window opening, about twelve by eighteen inches.

A Malay Family

Now look about you. The walls are covered with newspapers in many languages. There are shelves which contain bottles, tin boxes, a few dishes, and two or three books. A coat and umbrella hang on the wall. At one side, on the floor, are two tin trunks, and some cotton pillows and a pad in one corner. There are no chairs, no table. The floor where you stand is covered with a narrow strip of matting, on which a half dozen old women sit curled up and crowded together.

Your eyes fall upon a young mother in a corner. Lying near her on the hard board floor is her newborn babe, her second son, a tiny boy. His head would fit into an ordinary teacup.

A Malay midwife has charge of the case. She does not take advice kindly. To help, you too must sit or kneel on the floor. After watching her care for the child, you think, "Little wonder so many of them die. One can only wonder that any of them live at all." Some old, dirty-looking rags are brought out and put in use. These make the baby's swaddling clothes, and seem to be all there is in the layette. You promise yourself to send it something better. As you rise to go, the mother looks up with her soft black eyes, and says, "*Banjak trima kasi njonja*" (Grateful thanks, madam), and you feel repaid. As you enter the sunshine again, you take a long breath. How good the fresh air seems!

In a few days you are sent for again. The European doctor tells you the baby has become infected through carelessness, and instructs you to care for it. And what is this spot of pot black on the baby's forehead? You are told that it is "*obat ebbis*" (devil medicine). The Malay midwife has been there, and is using this remedy to drive out the devil, which she contends is causing the child's sickness. In response to the careful treatment which you give for a few days, the child grows better, and the parents are very happy to think perhaps it will live. The Malay man loves his baby.

But in a few days more you receive another call, to find the poor baby in convulsions, and death about to claim its own. The child will not respond to

(*Continued on page 7*)

AS WE SEE IT

Conducted by G. H. Heald, M. D.

SENSIBLE CLOTHING FOR CHILDREN

WHEN winter comes, we act on the principle that we are going to live in an atmosphere somewhere near the freezing point, whereas, in fact, we spend a large portion of our time in rooms heated to near summer heat — above 60°, often above 70°, sometimes above 80°. If parents will pay more heed to the following caution, taken from *Pediatrics*, they will keep their children in better health:

"In the widespread reaction against woolen underwear, flannel petticoats, and warm stockings, the 'new' mother seems to think that her physician is prescribing a modern discovery for her child, instead of realizing that he is only trying to mitigate a very bad hygienic state of affairs in the overheated atmosphere in which his patient lives. Even though it be winter, it is impossible for any one to be comfortable with wool next to the skin when an apartment or house is heated to a temperature between seventy and eighty. Physicians who advise lightweight clothing that allows the heat of the body to pass off readily while in the house, and an exceedingly warm set of garments for outdoors, are simply adapting the clothing to conditions which they cannot overcome, and are not infrequently laying up a stock of snuffles and coughs for the children in the spring and fall. Then, after furnace and steam heat is dispensed with, the general temperature of the house is much nearer that of the outdoor air, but it is likely to be at least twenty degrees cooler than what the child has been accustomed to in the winter weather. . . .

"It is impossible to advocate any one method of clothing for all children. The over-steam-heated class, whose physicians prescribe well-advertised meshes of various fibers, are but a small percentage of children. The main underlying principle is to teach a child to create its own heat by exercise, rather than to depend upon artificial heat, and then to conserve that heat as the animals do, by warm clothing; for the change of temperature during the passage from indoors to outdoors is not as perceptible when the child is surrounded by a layer of its own bodily heat that is not too easily radiated through the clothing.

"There is a vast difference in children, some are so full-blooded that the slightest exercise causes them to perspire, and to catch cold readily if the changes are extreme; these should be slightly clothed and especial care given to drafts. Others become blue and livid with cold, through poor circulation; these should be clothed in wool, or half wool and half cotton, underclothing from wrists to ankles, and wear merino stockings and warm overshoes in cold weather, so that they may waste no particle of their natural heat in warming the outer air.

"The mother who swathes her year-old infant in flannel bands and skirts and jackets when the temperature is ninety-five degrees, and wonders why it has prickly heat, is unwise; but no more so than the mother who casts off the woolen band entirely all summer, regardless of the cool mornings and sudden breezes, and wonders why the child has diarrhea. As the woman told Tom de Willoughby, 'The mejumer you are with children, the better.' So we advise very strongly from principle and experience that the majority of children, summer and winter, should have on hand linen mesh underclothing, to be used or not with discretion, according to the temperature of their habitation; and that in cold weather they should help to equalize the difference between indoors and out by the addition of warm outdoor garments, of which the woolen sweater is perhaps the most useful."

WHY DO WE NEGLECT OUR FEET?

WHY do shoe manufacturers insist on furnishing us shoes in so-called fashionable styles that distort the feet? They would not do it very long if the people as a whole did not want that kind of shoe. Then why, we may ask, is the public, or the great majority of the public, content to wear ill-fitting, uncomfortable, deforming shoes? Why will they submit to what is not only a temporary inconvenience, but a source of more or less permanent crippling? The September issue of *American Medicine* expresses the opinion that we neglect and abuse our feet because we are not in our daily routine so dependent on our feet as were our forefathers. It needed the strenuous work of war preparation to demonstrate to what an extent we have been weakening our feet. To quote:

"Conscription in European countries has clearly demonstrated the fact that defective feet are extremely common in all ranks of life. The ordinary civilian mode of living places little strain on the feet. Indeed, in these days, if an individual is not energetically inclined, he need take almost no pedestrian exercise. If he be well-to-do he may ride in his motor car,

and if he is not able to afford this manner of transit the facilities for transport are still so plentiful that walking is seldom or never called for. The consequence is that men, women, and even children of the present day, not having the occasion or not being compelled constantly to use their feet, do not take proper care of them. The feet, not being subjected to any strain, are put into ill-shaped, though essentially fashionable shoes, which if their wearers had to take much active exercise would be impossible to wear, and which under existing circumstances frequently deform the feet. Lack of walking exercise is mainly responsible for the unhygienic footwear which, under the guise of fashion, is in vogue nowadays, and to this cause is almost wholly due the prevalence of malformed and defective feet."

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THE COW VERSUS THE STEER

THAT a good cow is a more economical producer of food than a steer is shown by the following comparison furnished by the International Harvester Company in their "cow book" recently issued:

"A Holstein cow owned by the dairy department of the University of Missouri in one year produced more human food in her milk than is contained in the complete carcasses of four steers weighing 1,250 pounds each. This statement, impossible as it seems, is not only true, but does not even do full justice to the cow. The solids in the milk, which are completely digestible, are counted against the entire carcass of the steer, only part of which is edible.

"Princess Carlotta is the cow that performed this feat. In one year she produced 18,405 pounds of milk. Below is given the amount of proteins, fat, sugar, and ash contained in this milk, and also the amount of the same substances found in the carcass of a fat steer weighing 1,250 pounds, in an analysis made by Dr. P. F. Trowbridge:

	18,405 Pounds Milk	1,250-pound Steer
Proteins	552	172
Fat	618	333
Sugar	920	none
Ash	128	43
Totals	2,218	548

"The total amount of dry matter in the milk was 2,218 pounds, all of which is edible and digestible.

"The steer, with a live weight of 1,250 pounds, contained fifty-six per cent of water in the carcass, leaving a total of 548 pounds of dry matter. In this dry matter of the steer is included hair and hide, bones and tendons, organs of digestion and respiration, in fact, the entire animal, a considerable portion of which is not edible. The analysis of the steer's carcass was made from samples taken after grinding up one half of the complete carcass, and is not in any sense an estimation of the composition of the carcass.

"Princess Carlotta produced proteins sufficient for more than three steers; nearly fat enough for two; ash enough to build the skeletons for three; and in addition, produced 920 pounds of milk sugar, worth as much per pound for food as ordinary sugar.

"It is because of this economical use of food that the dairy cow and not the steer is kept on high-priced land. When land is cheap and feed abundant the meat-producing animals predominate, but when the land becomes high in value and feed expensive the farmer turns to the dairy cow."

Why raise meat when a better animal food can be produced more abundantly and more cheaply? Milk is the cheapest animal food to the consumer. It is the cheapest to produce.

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SAYS POTATOES AND SUGAR MAY DISPLACE MEAT AND WHEAT

IN various scientific and lay journals come (partly perhaps as a result of the food conservation propaganda, partly because of certain remarkable discoveries recently made as a result of extended feeding experiments on animals) admissions as to the soundness of the position championed by LIFE AND HEALTH for years; namely, that a dietary containing flesh meat has no essential advantage over a nonflesh dietary, provided the latter is properly selected.

An example of such admissions appears in the October, 1917, *Scientific Monthly*, in a paper by Prof. S. N. Pat-

ten, of the University of Pennsylvania. In discussing possible changes in food consumption, he says:

"Potatoes and sugar may displace meat and wheat bread. I had little difficulty in proving this point, but the next step was blocked by a supposed physiological principle. It was contended that the cheap food made a low type of man. The rare foods, like meat and bread, stimulated a higher sort of energy, and gave to those who use them a physical and mental superiority that was decisive in every world contest. The Irish potato eater was doomed to a subordinate position in comparison to the English, who used more costly food. Economic progress and physical progress were thus put in opposition.

"This obstacle no longer exists, or at least is in a fair way to be removed. The cheaper foods have of late proved their worth. The vigor coming from the use of meat is in no way superior to that of bread, potatoes, or rice. If but one article or some few articles were used, wheat bread and meat might prove their superiority to the potatoes or rice; but as the variety of food increases, the deficiencies of each sort of cheap food are made up by the excellence of some other food. The cheaper diet as a whole proves its superiority over the old meat and bread diet. . . .

"Our stomach troubles are due to a change to a concentrated diet, a change which was promoted by the belief that the dearer foods gave superior energy to that derived from cheap foods. The measure of energy is not the quantity of food taken into the stomach, but the quantity of pure blood that results from the digestive process. . . . The best food when eaten too freely may be burned into toxins, and thus be harmful instead of beneficial. This is especially true of meat foods, which are so liable to be transformed into noxious compounds."

PELLAGRA IN ANIMALS PRODUCED BY DIET

CHITTENDEN and Underhill, of Yale University, have produced in dogs a condition closely resembling human pellagra by submitting them to a ration consisting of boiled dried peas, crackermeal, and cottonseed oil or lard. The addition of meat to the dietary restored normal conditions. There were conditions, however, under which the symptoms were present even when the diet included raw meat. According to the experiments, the disease could not have been due to deficiency of protein, as some of their observations seemed to demonstrate.

The tendency is to interpret these and similar experiments as indicating that vegetarianism tends to produce pellagra Other experimental work and clinical observations have indicated that pellagra is not caused by vegetarian food, but possibly by the use of a restricted dietary lacking in certain elements essential to health. The peas-crackermeal-lard ration is a good example. The *Journal A. M. A.*, Sept. 29, 1917, commenting editorially on this series of experiments, closes as follows:

"Their [Chittenden and Underhill] verdict is that failure of dogs to thrive on the selected vegetable diet must therefore be ascribed to the character of the food. Let enthusiasts beware, however, from associating pellagra with vegetarianism *per se*. A ration of peas, wheat, and cottonseed oil is not the ideal of the vegetarian regimen."

It is true, however, that very many pellagrins are persons who have used freely of lard or cottonseed oil, two fats that lack the fat-soluble unknown, contained in milk, butter, eggs, and greens, and which appears to exert such a marvelous influence over nutrition, especially of the young.

Has it been shown that a person who, though on a vegetarian diet, gets such a variety of food as to secure protein material adequate in quality, and an ample supply of the fat-soluble and water-soluble unknown substances contained in green vegetables and milk and other animal foods, may contract pellagra? So far as the writer knows, it has not.

QUESTIONS AND ANSWERS

Conducted by J. W. Hopkins, M. D., Washington (D. C.) Sanitarium

This is a service for subscribers to LIFE AND HEALTH.
If a personal reply is desired, inclose a three-cent stamp.
If you are not already a subscriber, send also the subscription price with your question.
Replies not considered of general interest are not published; so if your query is not accompanied by return postage for a personal answer, it may receive no attention whatever.
Remember that it is not the purpose of this service to attempt to treat serious diseases by mail. Those who are sick need the personal examination and attention of a physician.
State your questions as briefly as possible, consistent with clearness, and on a sheet separate from all business matters. Otherwise they may be overlooked.

For prompt attention, questions should be addressed to J. W. Hopkins, M. D., Takoma Park, D. C.

Answers to last three questions by G. H. Heald, M. D.

Ptomaine Poisoning — Eggs — Milk

"1. What kinds of food generally cause ptomaine poisoning? Is not slightly tainted meat likely to cause it? Why can Negroes eat spoiled meat without harm? 2. Is poison from canned meat due to contact of the meat with the tin, or to the meat's not being sound when it is put up? 3. Is there not danger of ptomaine poisoning from eggs? Are fertile eggs preserved in liquid glass perfectly safe for digestion or health? Are not sterile eggs safer? 4. Is the sickness of a child caused by the use of white of egg with milk due to ptomaine poisoning? Does boiling the milk injure it and how? 5. Does milk ever cause ptomaine poisoning?"

1. Ptomaines are poisons produced by the putrefaction of protein foods, as during the rotting, or spoiling, of meat, cheese, fish, shellfish, etc. Animals with a large amount of gastric juice can eat foods which have begun to undergo decomposition, and will apparently receive no harm from doing so. Thus a dog can eat spoiled meat, and if he is killed an hour or so after swallowing it, the meat will be found to have been greatly purified by the gastric juice — that is, the decomposition will have been stopped by the action of the acid juice upon the germs. Meat is most poisonous from the fourth to the eleventh day of putrefaction; it is during this period that the ptomaines produced are the most toxic. Cheese, if poisonous, is most so when it is green. Ptomaine poisons are also formed in putrefying vegetable protein, but the latter are rare compared with the poison from animal foods.

2. I do not believe that the poisoning from canned meats is due to the contact of the meat with tin. The meat was not clean when it was put up, and decomposition has continued.

3. Eggs are less liable to convey disease than is any other food of animal origin. I have never known of a case of ptomaine poisoning which could be traced to the use of eggs. Sterile eggs may perhaps be safer than fertile eggs for long keeping, especially in liquid glass, but if the eggs are kept at a low temperature, fertile eggs will not spoil, as the water glass prevents the bacteria from penetrating the shell, and germs will not be developed.

4. The child's sickness might have been due to the use of an egg which was not fresh, but it is more than likely he had some susceptibility or idiosyncrasy which resulted in the sickness. Some people cannot use eggs, and some cannot use strawberries, the idiosyncrasy being due to their own peculiar condition. Egg yolk is more easily digested if it is hard boiled, while egg white should be coddled or soft boiled. Boiled milk is preferable to raw milk, unless the cow has been tested for tuberculosis and is known to be perfectly healthy. Boiling the milk makes it less easy of digestion, and destroys some of the vitamines which fresh milk contains. These, however, can be supplied by the use of oranges or fresh vegetables.

5. Ptomaines may be produced by the decomposition of milk, and are found in products containing spoiled milk, as ice cream, or in cheese where the toxins are formed during the manufacture of cheese. The dangers from the use of milk are more likely to come from some disease in the cow which is carried through the milk, or from infection transmitted to the milk after it has been received into different receptacles. Tuberculosis and typhoid fever are sometimes carried by milk.

High Blood Pressure

"Please give causes, symptoms, and treatment of high blood pressure."

The causes of high blood pressure are the following:

Excessive eating and drinking, which produce an increased amount of flesh metabolism in the body. The improper digestion of proteins, and especially of meat proteins, with the toxins which are formed and absorbed from these meat proteins, are important factors in producing high blood pressure, and more especially when there is insufficient elimination. Certain diseases, as gout, scarlet fever, acute nephritis, etc., are followed or accompanied by high blood pressure.

In many cases worry is a cause of high blood pressure. We find in Luke 21: 26 that in this time of the world's history, men's hearts will be failing them for fear.

The use of alcoholic drink will increase the blood pressure, especially when it increases the appetite, decreases the action of the liver, and causes intestinal indigestion. Intestinal fermentation or putrefaction must be reckoned with in considering the causes of hypertension. The continued use of caffein in tea, coffee, cocoa, and chocolate, and of nicotine in tobacco, will increase the blood pressure. Heavy work raises the blood pressure by increasing the muscular

waste. In many athletes we find a hypertrophied heart with increased force and high blood pressure. Nervous troubles and syphilis are also among the causes.

The symptoms of this trouble are dizziness, and a full, tight feeling in the head, which often amounts to headache. The patient may have pain or distress around the heart. Others may find themselves unable to relax when not at work. Some may find themselves working at a higher tension, and may notice that gray-matter stimulants, as coffee, tea, alcohol, and tobacco, produce a more marked effect the longer they are used. They may notice an increased frequency of urination, especially at night, and after drinking coffee. The patient may observe that he is more irritable and fretful than usual. Some shortness of breath may be noticed; also disturbance of vision.

In the treatment of this condition, rest is of paramount importance. The individual should take a prolonged rest, until the acute symptoms have subsided. Sleep must be obtained, as it lowers the blood pressure very directly. This may be procured by means of sedative treatments. Rest is necessary also as a preventive against the onset of hypertension, and the habit of systematic rest should be brought to the notice of children and youth. They should be educated to rest after meals. It is a good habit to take a short siesta of an hour each afternoon. Excess of eating must be avoided. Late dinners and eating between meals, the use of too many foods at a meal,— all these things must be considered. Proper measures must be taken to prevent or control the intestinal indigestion, especially in persons forty years or more of age.

The bowels must be regulated so that they will move once or twice a day, and it is a good thing to take an active purge once or twice a week. The activity of the skin should be increased and moderate eliminative treatments taken several times a week. These measures should be under the direction of a physician. Those who are obese should decrease their weight and the amount of food taken at the meal, both in quantity and variety. The use of salt must be restricted, as must also the use of water. It is often beneficial to have one day in the week in which the diet is restricted, amounting occasionally to a partial fast. A milk diet is often beneficial for a day or two, and sometimes the use of lactic-acid buttermilk is better than a milk diet.

Colon washings are very useful. It is very good to form the habit of relaxing for an hour a day. This may be done during the afternoon sleepy period.

To one in this condition the advice of John Wesley, given in "Primitive Physic," page 13, is very timely: "Above all add to other measures, for it is not labor lost, that old-fashioned medicine — prayer; and have faith in God."

Glasses and Eyestrain

"Are all cases of eyestrain susceptible of relief by glasses?"

There are some cases of eyestrain that, after months and years of treatment by various oculists and with different glasses, still find that they cannot do close work without suffering.

Aching Tooth

"What is a good remedy for an aching tooth due to a cavity?"

In order temporarily to relieve the pain, you might insert in the cavity a pledget of cotton dipped in oil of cloves or in a mixture of oil of cloves and pure carbolic acid. The cotton should be wadded into a tight ball, the excess of medicament pressed out, and the ball inserted in the tooth cavity by means of a toothpick, care being taken not to get any of the medicament on the lips, gums, or tongue. Then a pledget of dry cotton should be pressed into the cavity over the medicated cotton.

This treatment will relieve a very severe toothache, but it should be only a temporary expedient, for a cavity is a menace to the health, and delay makes it more difficult to save the tooth. No one with a cavity can be certain that he is not laying the foundation of some grave disease, such as inflammatory rheumatism. A cavity cannot be kept clean. It contains a mass of decaying, rotting tissue and food, and is an ideal place for the rapid breeding of disease germs. One should never permit a cavity to grow to the point where it becomes sensitive. An occasional visit to the dentist for examination would prevent this mishap, and would actually lessen the aggregate of the dentist bills. Toothache is the "handwriting on the wall," indicating that something should be done immediately. Either have the cavity filled, if the tooth is worth saving, or have the tooth out. Do not tolerate a tooth cavity.

Sudden Deafness

"As I was working at a shingle machine, I noticed a feeling of fulness in my right ear, and on closing my left ear, perceived that I could no longer hear with the right ear. There was no pain. Heretofore I have had excellent hearing. Can anything be done to restore it?"

Your hearing is probably as good as it ever was; or rather, will be when you have the outer ear canal cleared of wax. Probably there was a gradual accumulation of wax until the canal was almost closed. So long as there was an opening, even though small, the sound waves were transmitted to your ear. Some change, possibly some movement of your jaw, served to close the small orifice, producing the sensation you felt and the deafness.

The operation of cleansing the canal is best performed by means of warm water containing baking soda, say a teaspoonful to the pint, which should be gently injected into the ear by means of a syringe, preferably a fountain syringe. By all means let this operation be done, if possible, by a physician who understands the delicacy of the ear. A little roughness may increase the formation of wax, or start a very painful abscess, or set up an inflammatory condition of the eardrum. If you are not so situated that you can see a physician at once, you might better afford to wait for an opportunity than to risk a permanent injury to the eardrum. The presence of the wax is not liable to be followed by any serious consequence.

NEWS NOTES

Canned Corn Plentiful

Canned corn should be plentiful this winter, as it is predicted that the total pack will reach 11,000,000 cases, the largest since 1912. This should place canned corn on the list of foods obtainable at reasonable prices.

Food Conservation in Hotel

Hotel Biltmore, New York City, saves on "meatless Tuesday" more than a ton of meat, and on "wheatless Wednesday" five barrels of wheat flour. Many hotels are in like manner coöperating in the conservation of food.

"Wheatless" Pastries

Beginning October 17, no wheat has been used in French pastries and pies served at the Biltmore, the Manhattan, and the Ansonia Hotel, or at a number of other hotels in New York City. Rye, rice, chestnut, and potato flours have been substituted.

Employment of Women in France

Since the beginning of the war, French women are replacing men in bakeries, in the manufacture of lead pencils, in gas works, in hide and skin curing, in boot and shoe manufacturing establishments, in cleaning, laundering, cutting, and repairing clothing, tents, coats, and boots, in cleaning arms, in making saddles and harness for the army, in operating woodworking machinery, such as band saws, lathes, and planers, and in various other employments.

To Diagnose Tuberculosis in Children

The diagnostic symptoms, according to Chadwick and Morgan in the *Boston Medical and Surgical Journal*, are weakness, undue fatigue, fever, poor appetite, failure to gain in weight, nervous irritability, cough, hoarseness, and occasional streaked sputum. When one or more of these symptoms are present, it is important to seek medical advice. It should be remembered that a child may have tuberculosis without showing all these signs. It is advisable, if any of these signs are present, to have an early examination; for the sooner active treatment is begun the better, if treatment is indicated.

Automobile Accidents Increasing

According to a statement by Dr. Hermann M. Biggs, State commissioner of health of New York, more people were killed in New York State by automobiles during the first nine months of 1917 than by typhoid and scarlet fevers combined. While sanitary efforts succeeded in reducing typhoid mortality twenty-six per cent below the average for the past five years, automobile accidents threaten to take the place of typhoid as one of the chief preventable causes of death. Dr. Biggs points out that the steadily increasing toll of automobile fatalities shows the imperative need for stringent enforcement of traffic regulations, and the education of the public in carefulness on the streets and highways.

Every Little Helps

The Food Administration has announced that if every American will reduce his wheat-flour consumption from five pounds to four pounds each week, the saving will be sufficient to supply the Allies. Thus the old song:

"Little drops of water, little grains of sand,
Make the mighty ocean and the pleasant land."

Saving in Meat

One New York City hotel supply company reported in October that since meatless Tuesday had been inaugurated, its tonnage had dropped twelve to fourteen thousand pounds as compared with the average Tuesday of August. August is regarded as a fair average, although it was less than the heavy months of last fall.

Typhoid and the War

If medical science had not made some recent strides, typhoid fever would doubtless be one of the great scourges of this war. But owing to the fact that the men are given a protective inoculation, or antityphoid "vaccination," there are very few cases of typhoid in the armies. The same is true of paratyphoid, a disease similar to typhoid but milder in reaction. The only serious outbreak of this disease was in the Gallipoli expedition, where, it is said, there was no proper vaccination against paratyphoid.

Pellagra Transmissible

In the *Journal of Infectious Diseases*, August, 1917, Jobling and Peterson make further report of their investigation of pellagra conditions in Nashville. As a result of their study, the authors say they cannot ignore the fact that the disease presents all the evidences of being in some way conveyed from one patient to another. It is found almost invariably in unsewered areas, and is a family disease or goes from house to house. Not only members of the family, but relatives frequently visiting a pellagrin, are liable to succumb to the disease. The fact that segregated groups of Negroes, living under conditions identical with those of the victims of the disease but not coming in contact with them, are free from the disease, is significant.

Pasteurized Milk

Pasteurization, if properly performed, destroys the disease-producing germs, and is supposed to do so without altering the nutritive qualities of the milk. But Allen, in the *Journal of Infectious Diseases*, August, 1917, asserts that Pasteurization renders milk a more favorable medium for the growth of *B. aërogenes*, a gas-forming colon bacillus. This bears out the opinion of dairymen that raw milk has germ-resisting properties not possessed by heated milk. After Pasteurized milk has stood for some time, it may actually have more germs than raw milk of the same age, owing to the more rapid development of germs after Pasteurization.

Cinnamon for Cold in the Head

It has been asserted that 25-drop doses of spirits of cinnamon are very efficient in acute coryza.

"Meatless" and "Wheatless" Days

The Hotels and Restaurants Division of the United States Food Administration has received a report from New York City that out of 225 members of the Society of Restauranteurs, 224 have adopted a "meatless Tuesday" and a "wheatless Wednesday."

Employment of Women in England

In England, since the beginning of the war, about 1,240,000 additional women, an increase of 376 per cent, have been drawn into various industrial, traffic, commercial, professional, and agricultural situations. And this does not include a vast number who work as casual agricultural laborers, or who work in small shops.

Spinal Tuberculosis

According to Dr. Geo. I. Bauman, in the *Cleveland Medical Journal*, "spinal tuberculosis should be considered a local manifestation of a more or less general tuberculosis, and be treated as such. Rest, sunlight, fresh air, and good food are doubly important, as they influence favorably the local as well as the general condition. Abscesses should not be operated upon unless absolutely necessary. Fixation operations should be reserved for selected cases."

Thanks from Serbia

The Serbian minister, L. Michailovitch, speaking in behalf of his people, who have gallantly maintained their national existence against overwhelming numbers, recently made the following touching statement: "I consider the effort of the United States Food Administration in inaugurating the 'Food Pledge Week' for the conservation of food, as vitally important. However small the economy may be, if practiced in every family the saving of food will . . . save distressed peoples from starvation. . . . We, who have come to the United States in order to seek food for our soldiers and people, can only say that we see our salvation if the appeal of this admirably organized Food Administration is successful, and the proposed measures are executed."

Food License Law

November 1, the law requiring manufacturers, wholesalers, and other distributors of staple goods to secure from the United States Food Administration a licence, went into effect, to continue during the war. A penalty of $5,000, or two years' imprisonment, is affixed for violation of the law. It is estimated that there will be at least 100,000 licensees under the law. Small dealers are not licensed. The licensed foods include beef, pork, mutton, fish, poultry, eggs, milk, butter, cheese, flour, sugar, cereals, lard, beans, peas, fruits, vegetables, several lines of canned goods, and other products.

Prevention of Lockjaw

During October of 1914, when medical supplies were scarce, the British army had 32 cases of tetanus for every 1,000 wounded men. Since November of that year, owing to the use of protective immunization of the wounded by means of antitetanic serum, the tetanus cases have fallen to 2 per 1,000 wounded, or less.

Food Conservation in Italy

According to a statement made by Ambassador di Cellere October 30, the sale of meat is prohibited in Italy two days in the week, the sugar ration has been reduced to 17½ ounces a month for each person, a little more than 13 pounds a year, less than one sixth of what Americans use, and the bread allowance has been reduced for the workmen to 21 ounces a day (for the civil population, half of this amount), and even to the fighting soldiers the quantity has been reduced from 26 ounces daily to 21 ounces.

Control of Retailers and Speculators

No retailer or other dealer who in violation of the Food Control Act puts excessive prices on necessary foods, will be able to obtain supplies, under a regulation drawn by the Food Administration which went into effect November 1. Under this regulation, no manufacturer, wholesaler, or other handler of food will be allowed to sell to any retailer anywhere in the United States, who makes unreasonable profits or buys large quantities of foods for speculative purposes.

Cinnamon for Measles

W. B. Drummond, in the *British Medical Journal* of June 6, 1917, confirms a previous observation with the assertion that a course of cinnamon is an excellent protection against measles and German measles. He cites a case where the remedy was tried on twenty delicate children who had been exposed to a nurse suffering from an attack of German measles without any of the children's developing the disease. Each child received powdered cinnamon with its food night and morning for a period of about three weeks.

Moslem Hygiene

According to Rolla E. Hoffman, M. D., in *Cleveland Medical Journal*, "every Persian garden has one or more open stone or cement pools, or *hozes*, filled with water, and usually containing ten to fifty fishes, as a rule, goldfishes. In this *hoze* the household wash hands and faces, vegetables, cooking utensils, dishes, clothes, and anything else they think needs washing; into it they plunge, fleeing from the summer's heat and from it they usually draw their water for all household purposes. We have a hard time teaching our hospital servants not to wash things in the *hoze;* in fact, I suppose they still do it when we are not watching. Usually the water lost by evaporation is simply replaced; but when a foot or so of sediment has accumulated, and it becomes difficult to find lost articles dropped accidentally into it, the *hoze* is emptied, cleaned, and refilled from the open *jube* in the street. And the *jube* is little better than an open sewer."

Bulletin on Potato Storage

Any one interested in the storage of potatoes may secure a bulletin on "Potato Storage and Potato Storehouses" by making application to the United States Department of Agriculture, Washington, D. C., asking for Farmers' Bulletin No. 847.

To Prevent Hoarding

In order to prevent hoarding, the United States Food Administration has announced that no licensee will be permitted to "keep on hand or have in possession or under control, by contract or other arrangement, at any time, any food commodities in a quantity in excess of the reasonable requirements of his business for use or sale by him during the period of sixty days," or to "sell or deliver to any person any food commodities if the licensee knows, or has reason to believe, that such sale or delivery will give such person a supply . . . in excess of his reasonable requirements for use or sale by him during the period of sixty days next succeeding such sale or delivery." With respect to some commodities the limit is fixed at thirty days' supply. Exceptions are made of commodities which are produced in great abundance at certain seasons, such as fruits, vegetables, fish, poultry, eggs, dairy products, cottonseed products, and certain others, which may be held in sufficient quantities to meet reasonable requirements throughout the period of scant or no production.

St. Helena Sanitarium

THE MAIN BUILDING — SHOWING THREE OF THE FIVE STORIES
New Concrete Hydrotherapy Building at the Right

AWAY from the noise, excitement, and contamination of the city, and nestled close to the heart of nature, on a beautifully wooded slope of Howell Mt., is situated the St. Helena Sanitarium.

ITS natural setting, in a forest of live-oaks, firs, manzanitas, and madronas, together with an almost unending variety of flowers and foliage, gives a beauty and fragrance to the place that beggars description. It must be seen and enjoyed to be appreciated.

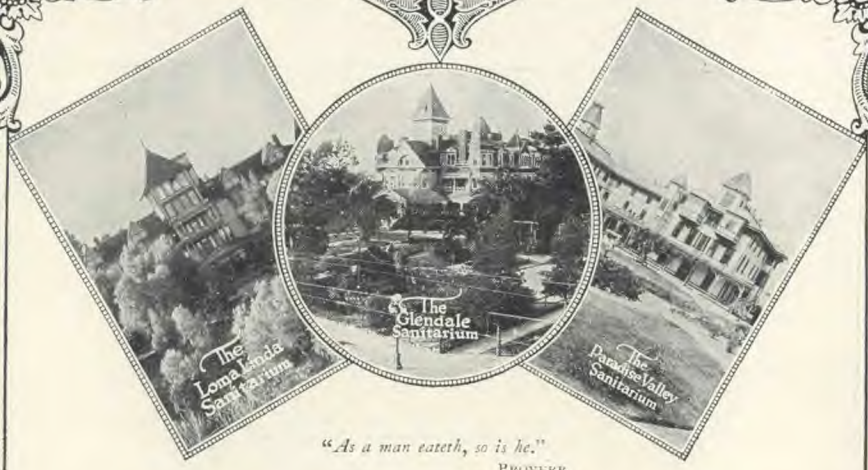
EVERY modern facility favorably known to medical science in the treatment of curable conditions, has been incorporated into the institutional régime. Thus nature and science have combined to make the St. Helena Sanitarium all that can be desired by the diseased body or the weary mind.

Health is Contagious at St. Helena

Sixty-five miles from San Francisco, easily accessible by either steam or electric line; three and one-half miles from St. Helena; 750 feet above the sea level; splendid climatic conditions at all seasons of the year; pure mountain water; beautiful view of valley, mountain, and plain; seven physicians, seventy nurses; excellent service, liberal cuisine,—these and many other advantages are to be enjoyed at this beauty spot of California.

The St. Helena Sanitarium

Sanitarium, Napa County - - - California



"As a man eateth, so is he."
PROVERB.

How Did You Stoke Your Furnace Today?

HOW did you eat today? Did you select your food with care? Or—did you, as a matter of course, eat what was placed before you? How you eat—what you eat—when you eat—has everything in the world to do with your health and efficiency.

What you eat *today* is walking around and talking *tomorrow*—so says one of the greatest medical authorities in the world. Because—the health of the whole body is tempered in the laboratory of the stomach.

Teaching people how to eat is one of the chief features of the Sanitarium program of health-building. Not alone is the food prepared with scientific precision—not alone is the right diet prescribed for each individual case—but it is provided in the exact quantity and variety needed.

Again—you do not miss the things that are banned because there are so many other things to take their places. Dieting is made a delight.

The diet system in use at these institutions is the result of almost half a century of thoroughgoing research. It is not based on fads, guesswork or unproven theories.

The wholesome daily dietary is supplemented in an effective way by a thoroughly enjoyable program — embracing rest, sleep, exercise and the outdoor life.

And now—if you want to see how a stay at one of these health-homes will lead you irresistibly back to the "Simple Life" and health—you will make it a point to write for descriptive literature *today*.

The Loma Linda Sanitarium
301 Pepper Drive, Loma Linda, Cal.

The Glendale Sanitarium
201 Broadway, Glendale, Cal.

The Paradise Valley Sanitarium
101 Sanitarium Ave., National City, Cal.