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

Vol. XIX

Washington, D. C., December, 1904

No. 12

What a Doctor Learns from His Patients

Frederick M. Rossiter, M. D.

A WRITER has said that we ought to learn something new from every man we come in contact with, even though he be a fool. The work of the physician brings him into intimate relation with a constant procession of new faces and peculiar personalities, and so opens up a wide door for acquiring a fund of information most valuable, and of the most practical nature at times. In fact, a physician is very much indebted to his patients for much of his knowledge.

One fact that is forcibly pressed home upon the physician to-day is that the great majority of people are more or less sick, or think they are, and so are either doctoring or taking self-prescribed medicines, which, as a rule, are patent medicines. Multitudes of poorly qualified physicians and multitudes of drugs and patent medicines are the curse of the present-day civilization. Only the recording angel can tell of the needless deaths and of the untold misery and woe in the world because of these two great evils.

There never has been a period when the people have had so much light in reference to health as at the present day, and it is safe to say there never was a time when there was anything like the

present-time doctoring and medicine swallowing. Patients go the rounds of all the physicians in town, and take in and are "taken in" by all the "quacks." This is doubtless due to the fact that few persons realize that curing and healing come from within the body, and not from drugs or doctors.

As soon as an individual appreciates the truth that healing is due to natural forces, there is more thought given to personal hygiene, diet, and exercise, and less trust put in drugs and patent medicines.

With all our modern sanitation and improved hygienic methods, and the general instruction in physiology given to the youth in the public schools, and all the systems of health getting, there is a most astonishing want of knowledge, more noticeable among the common people, in reference to principles of healthful living.

Few people stand correctly, and not one woman in a hundred that comes to my office dresses hygienically. Then it is surprising how many people there are who only bathe semi-occasionally. This lack of cleanliness or sufficient bathing is more noticeable among men than among women.

Moreover, the longer I practise, the more am I impressed with the truthfulness of the saying of Solomon, "All the labor of man is for his mouth." Because of errors in diet and errors in eating, thousands of physicians are kept busy, and millions of dollars are spent, to say nothing of the host that join the dead.

Then there is a craze for drugs. People will have something to swallow. Daily I am surprised to see the great confidence people have in medicines, and yet it is very gratifying to see an increasing number who are tired of "swallowing something" to effect a cure. I have spent an hour many a time with a patient in going into detail about what to do, and then at the close be asked what medicine he should take.

An agent, representing one of the largest wholesale drug firms in the land, told me some time ago that many of his customers in the large cities ordered plain sugar tablets in five and ten thousand lots, and one physician ordered fifty thousand. In the hands of a good physician, such medicine accomplishes wonders — when his instruction is followed, and the mind of the patient is satisfied, knowing he has faithfully swallowed something.

A physician soon learns that when a patient consults him for some sickness, even though it is all imaginary, he must treat that individual as though he were sick. A person who believes he is sick, is sick, and needs the proper instruction, just as truly as though he had typhoid fever. He needs treatment simply because of his mental attitude toward himself, not because of either functional or organic disease. It is safe to say that more than one half of the people now under the care of physicians and in sanitariums would rarely need the advice of a physician if only a little

care was given to diet, bathing, and personal hygiene.

A personal contact with a large number of patients must convince a physician that if he is conscientious, he can not do very much surgery; for much of the surgery that is performed to-day is not only needless, and of no benefit to the patient after performed, but a positive menace to the life, often with fatal results,— fatal not because of the thing operated for, but solely because of the operation. The triumphs of modern surgery are such that both the profession and the laity have great reason to be proud of it, and so the writer would not be understood as opposed to surgery that promotes life and benefits the patient. But my observation and experience lead me to believe that most of the results hoped for in operations are never realized. In many of these cases proper treatment and time will remove the need of an operation. However, there are those who think they require an operation, and if one physician refuses to do a needless operation, they will go to some one who will operate.

It is surprising and gratifying to see the great improvement patients often make because of following a few simple instructions, or because of a few applications of hydrotherapy, or massage, or electricity. A few weeks ago I was called to see a sick woman and child. The mother had a bad cough, was pale, exhausted, and had no appetite. After being under my care for a month, she seemed to be no better, and I was beginning to be discouraged. But as the weather was intensely hot, and they lived in a little cottage with no shade at all, I thought that probably the heat had something to do with her condition. Finally I discovered that she and her three children were sleeping in the same room, with all the windows and the door

closed; for the father was away, and they were afraid. The daily temperature was from ninety degrees to one hundred degrees in the shade. Instructions were given to have all the windows up at night, and the door open. In about a week the patient came to me, saying that her cough was almost gone, and she felt much better.

In the rational treatment of disease there is little credit that the physician can take to himself. Whatever the exciting cause of disease may be, the storm-center of disease is within the body, and

there resides the healing power. To this power the physician may act as assistant. He may keep external forces at bay while the conflict with disease and the healing are going on within, but for him to arrogate to himself the power to cure is the height of folly.

"I am the Lord that healeth thee" is a truth so beautiful, so charming, so vital, and so overwhelmingly demonstrated to be true in the functions of the body, that it is passingly strange it should be so universally lost sight of at the present time.

North Yakima, Wash.



Letters from a Physician to His Son

MY DEAR SON: Your reply to my last letter was read with much pleasure. I am glad you are interested in what I said about right ideals, and the sad consequences of allowing one's self to live below his knowledge of right.

I promised to show in this letter how right ideals are formed.

Each nation has ideals that are peculiar to itself. Each different class of society has its own standard of that which is desirable and right. Every individual, also, has ideals that differ somewhat from those of others of his class and country. These things are true among primitive peoples or heathen as well as in civilized countries.

Religion is an important thing,—perhaps the most important,—in the formation of ideals. It is said that in the Orient—in Asia—ideals are so different from those of this country that many things that are here thought to be important do not there appeal to the mind of the people with any force at all. On this account missionaries find it necessary to learn the ideals of the

people whom they wish to teach before they can move them to make reforms. Millions of people in Asia believe that the highest heaven is a place of complete unconsciousness,—that ideal happiness is to be found in annihilation,—and that this state is to be reached only by self-denial and penance, or self-inflicted pain. Thus they think that one can be saved only by his own works, and that complete destruction is salvation.

In China and Japan very great reverence for ancestors is thought to be the highest virtue. This is so extreme as to amount to worship. In ancient Sparta, and at one time in Rome, loyalty to the state was regarded as the highest good, while millions, particularly in our own land, show by their life habits that they think wealth to be the chief source of human happiness.

Since the ideals of different men differ so widely, how can one hope to form right ideals by studying only human standards? If the human family were still in harmony with its Creator, we might hope for wisdom from human

teachers. But all know that men are in sympathy with evil.

Since men's ideals are largely fixed by religion, and since all of the hundreds of religions on the earth are only human, and therefore false, except that religion which is directly revealed by God the Creator, we have here an explanation of the fact that men's ideals differ widely. God's revelation is opposed by Satan's counterfeit revelations — all soul-destroying falsehoods. These are accepted by most men as truth. Hence the many false ideals in the world.

It follows, then, that no man can reasonably expect to form ideals that will stand the test of the ages and be accepted in the final judgment, except he makes the personal acquaintance of God, and, from a knowledge of his character, learns to make God's ideals his own.

Because many false ideals are found in the church of Christ and in respectable society, these are doubly fascinating to youth; for many suppose that in turning away from these they are forsaking all prospects of worldly prosperity. On this account, my son, I wish to urge you to study the Word constantly

and carefully with prayer. Compare every opinion and all conclusions offered you with its teachings, and reject everything not in perfect harmony therewith.

The Word says, "Walk before me, and be thou perfect." How very unfortunate for you should you adopt the false standards held by many in the world; namely, to be sufficiently moral to be respectable! False ideals, low standards, continually show themselves by lax morals and loose habits.

Heaven demands pure living and high thinking, and assures us that all who comply with this requirement, and only those, may enjoy the companionship of heavenly society — the holy angels.

All this the psalmist includes in his answer to the question, "Wherewithal shall a young man cleanse his way?" namely, "By taking heed thereto according to thy Word."

All that interests you interests me, my son. I shall be pleased to have you write me fully concerning your classes and classmates.

In my next letter I hope to have something to say of the ideal human body, and how to secure it.

Yours very truly,

FATHER.



Health Hints for Winter

IF your throat is becoming sore, try gargling hot salt water — a teaspoonful of salt to a pint of water.

WHEN rooms are heated, whether by means of a furnace or by means of stoves or radiators, water should be allowed to evaporate, and thus add moisture to the air; for the unnatural dryness of the air caused by the heating, tends to cause an irritable condition of the air passages. A vessel of water (uncovered) should

stand in the hot-air box of the furnace or on each radiator, or on each stove. Moist warm air is soothing to the air passages, whereas excessively dry air is an irritant.

REMEMBER that sun's heat is preferable to stove heat, and that exercise in the open air is a tonic, whereas hovering over a hot stove is debilitating. Do not allow the cold weather to keep you indoors too much.

Health By Chewing: Nature's Food Filter

Horace Fletcher's Discovery of a New "Sense"

THROUGH the agitation of the subject of "thorough mouth digestion," which has been called, after him, "Fletcherizing food," the name of Horace Fletcher has become familiar to all who make a study of health topics.

A Venetian merchant applied for life insurance, and was rejected. His weight, two hundred and five pounds, and the presence of two chronic diseases, were enough to justify the medical examiner in presenting an unfavorable report. Some people would have made out their wills, and prepared for the end; but Mr. Fletcher looked at things differently. He knew that there was some cause for his physical break-down thus early in life; and having wealth and leisure, he began a series of investigations to learn the cause of his disorders.

The result is, he has reduced his weight from two hundred and five pounds to one hundred and sixty-five pounds, without denying his appetite, cured his disorders, so that he was accepted without difficulty for life insurance, the last examination finding him an unusually healthy subject for his age.

Though he is neither physiologist nor physician, he has the unqualified indorsement of eminent physicians who have made a study of dietetics, and has caused some of the world's most noted physiologists to pause and question whether present dietary standards and present methods of investigation are not all at fault.

Mr. Fletcher discovered that by chewing the food as long as it had any taste, swallowing from time to time that which had become liquid and tasteless, and rejecting any residue, he was satisfied with a much smaller quantity of food, and improved in all his functions. The excreta of skin and kidneys were almost odorless, and entirely inoffensive. The bowels moved only once in five to eight days, the discharge being dry and entirely inoffensive. There was a sense of cleanliness inside and out. Analysis of the urine showed marked decrease in absorption products from the bowel. His muscles were harder, his endurance greater. In every way he improved, physically and mentally.

These improvements occurred on a

diet containing less than one half the carbohydrates and a little over one third the proteid usually considered necessary to the maintenance of health.*

Mr. Fletcher finds that he can maintain a nutritive equilibrium on twelve ounces of solid food,—three eggs, the rest in potato, with 710 cubic centimeters of milk and 237 cubic centimeters of cream, or about a quart of milk and cream. His favorite diet now is brown bread, eggs, butter, cheese, cream, with fresh vegetables, and very little fruit.

* [The editor, some six years ago, pointed out in an article in *Modern Medicine* his reasons, based on the published experimental work then available, for believing that the prevailing dietary standards were much too high, especially as regards the amount of proteid needed by the system.]

Taste is an evidence of chemical process going on that should not be interrupted or transferred to the interior of the body.—Fletcher.

He does not attempt to regulate the quantity or quality of his food, but eats what his appetite calls for. His experience is that when he practises thorough mouth digestion, to be described later, he has no desire for anything but simple foods.

Dr. Ernest Van Someren, a physician of Venice, who adopted the same method of eating, noticed, in six weeks, that not only did the fauces refuse to allow the passage of food not fully prepared, but such food was returned from the back to the front of the mouth by an involuntary and eventually uncontrollable muscular effort, taking place in the reverse direction to that occurring at the beginning of the swallowing act. This sensitiveness to partly masticated food he calls a "sixth sense," present in all who masticate properly, but lost to those who eat too rapidly.

Dr. Van Someren was the first physi-

cian to take active interest in the new doctrine, and to bring it to the notice of medical men and physiologists. He had been suffering for years with the gout — was under the care of a London specialist, dieting carefully, but suffering from time to time with headache, boils, colds, eezema, and frequent acid dyspepsia, yet he was counted quite healthy and athletic. He fenced, practised calisthenics, rowed, and had abundant fresh air. In spite of all this he was losing interest in life and his work when Dr. Fletcher's method was brought to his attention.

He adopted the system, practising mastication until all taste was eliminated, treating liquid food the same way. He found that under this method it was not necessary to restrict his appetite in the least. In three months his symptoms

were all gone. The pleasure he derived from living and working were a constant surprise. Occasional colds and gouty pains he can always trace to carelessness in eating, and he can invariably shake them off by thorough mouth treatment of his food.

In 1901 the new method was brought to the notice of the physiologists of England, tests being made under the direction of Sir Michael Foster, who said the experiments "went to show that such treatment of the food has a most important effect upon the economy of the body; involving, in the first place, a very notable reduction in the amount of food, and especially of proteid food, necessary to maintain complete efficiency." "In the second place, this treatment produces in the experience of the origina-

tors an increase in the subjective and objective well-being." During this test the individuals

Never swallow anything that the instincts connected with the mouth show inclination to reject.—Fletcher.

experimented upon, ate food having an energy of less than one half of the amount usually taken, and proteid food, a little more than one third of the amount usually consumed.

Sir Michael also calls attention to the inoffensive character of the fecal matter, suggesting that it probably indicates a more aseptic condition.

He concludes his paper thus: "It is of great importance that the mind of the lay public should be disabused of the idea that medical science is possessed of final information concerning questions of nutrition. This is very far indeed from being the case. Human nutrition involves highly complex factors, and the scientific basis for our knowledge of the subject is but small. When questions of diet are concerned, medical teaching, no

less than popular practise, is to a great extent based upon empiricism." This is a most remarkable admission, coming, as it does, from the foremost physiologist of England.

In 1903, American physiologists, being skeptical as to the trustworthiness of the experimental work performed at Cambridge in connection with Mr. Fletcher's theory, Prof. R. H. Chittenden, director of the Sheffield Scientific School, offered the services of the Yale physiological laboratory for similar tests. In the June, 1903, issue of the *Popular Science Monthly*, he discusses the results of these experiments.*

In this thirteen days' test, Mr. Fletcher used less than one half the proteid considered necessary according to the Voit standard, and this deficiency was not made up by a large amount of carbohydrate food. Mr. Fletcher was not in any way restricted in his diet, but ate whatever his appetite called for, his diet being largely prepared cereals, milk, and maple sugar.

During the seven days, he ate twice a day. The food was carefully measured, and the food value accurately determined. The average for the seven days was: proteid, 45 grams; fat, 38 grams; carbohydrates, 253 grams; with a fuel value of 1,600 Calories, as against Voit's standard of three thousand or more.

Mr. Fletcher stated that his appetite was completely satisfied. His body

weight remained practically constant, and his nitrogen equilibrium was well maintained, showing that his food provided abundant nitrogen for the needs of the tissues.

In order to test the physical efficiency of Mr. Fletcher under this regime, he was placed in charge of Dr. Anderson, the director of the Yale gymnasium, who gave him the same exercises as the "Varsity Crew"—exercises that are known to be difficult and fatiguing, and can not be given to beginners without soreness and pain.

Dr. Anderson said that Mr. Fletcher took these exercises with ease that was unlooked for, and gave evidence of no soreness nor lameness. He says, "The case is unusual, and I am surprised that Mr. Fletcher can do the work of trained athletes and not give evidence of over-exertion." "Mr. Fletcher performs this work with greater ease, and with fewer noticeable bad results, than any man of his age and condition I have ever met with."

To appreciate the full value of the report, it must be remembered that Mr. Fletcher had for several months past taken practically no exercise other than that involved in daily walks about town.

"In Mr. Fletcher's case, at least, the body machinery was kept in perfect fitness without the consumption of any such quantities of fuel as has generally been considered necessary."

"The food during this test cost eleven cents a day, or seventy-seven cents for the week."

"Are we not justified in asking ourselves whether we have yet attained a clear comprehension of the real requirements of the body in the matter of bodily nutriment? whether we fully comprehend the best and most economical method of maintaining the body in a state of physiological fitness?"

* He asks the question, "Why, now, should we assume that a daily diet of over one hundred grams proteid with fats and carbohydrates to make up a full value of over three thousand large calories is a necessary requisite for bodily vigor and physical and mental fitness? — Mainly because of the supposition that true dietary standards may be learned by observing the relative amounts of nutrients actually consumed by a large number of individuals so situated that the choice of food is unrestricted. But that does not constitute very sound evidence. It certainly is not above criticism."

The Rationale of Exercise

A. W. Herr, B. S., M. D.

THE benefit of physical culture or exercise of any kind is not so much in the amount taken as in the regularity with which it is taken; for the reason that when a muscle is at rest the blood currents, following the lines of least resistance, flow largely in the vessels around the muscle. When the muscle is set to work, the contraction of its fibers forces the more or less stagnated blood out and into the venous trunks, thus producing, as it were, a vacuum, which, on the relaxation of the muscle, is filled with fresh, aerated blood from the arterial trunks.

This increased blood supply brings new life and vitality to the muscles. "The blood is the life," and so the muscles grow. Increased blood supply means increased growth. Therefore the way to develop any undeveloped or wasted tissue or organ of the body is by some means or other to bring increased quantities of blood to that part. Manipulation of the wasted limbs of a paralytic will for this reason cause the muscles of the limb to grow, and even the bones and cartilages of a limb will enlarge under repeated manipulations.

A sedentary person will derive more benefit from five minutes spent in vigorous exercise morning and evening than an hour spent in gymnasium work once or twice a week. One accustomed to walking much, and using the arm muscles but little, will rapidly develop those muscles by a few minutes spent daily in taking such movements as taught by Swaboda, of Chicago, in which the muscles of the arm are first rendered rigid, and then with effort thrust out from the body in various directions, and forcibly drawn in again,

as though pushing against some heavy object and pulling it back to the body again. Such movements vigorously contract the muscle fibers, emptying them completely of venous blood, and then the muscles become turgid with rich, oxygenated blood. Increased nourishment causes increased development, so that in the course of three months a soft, flabby muscle becomes a well-toned muscle.

The nutritive centers of the nerves are in the muscles; in other words, the nerves feed upon the muscles; and if the muscle be kept in a tonic condition, the nerves will become toned. This is a recognized fact made use of by the intelligent physician in the treatment of functional and even of organic diseases of the nervous system, such as locomotor ataxia, paralysis, and neurasthenia. The patient is put through a graded series of active or passive movements to develop muscle, which in turn feeds the nerves. Frequently patients have remarked that after such movements they have noticed increased brain power, showing that even mentality is increased by exercise. This should be a valuable lesson for the student.

Outdoor exercise is preferable because of the increase of oxygen supply to the tissues, which is essential in supporting combustion of the food elements, thus rendering the blood of value to the tissues. The combining of the oxygen with the food elements of the blood produces heat and muscular force. This emphasizes the necessity of deep respiratory movements to bring additional supply of oxygen to the tissues.

Deep breathing is important in another way. Deep inspiratory move-

ments serve to pump the blood as by suction from the veins of the abdominal cavity into the thorax. This is of especial benefit to the dyspeptic, in whom there is a tendency to a venous congestion of the abdominal viscera. One half of the blood of the body may accumulate in the large veins of this region, and in consequence the dyspeptic suffers from cold hands and cold feet.

Deep inspiratory movements bring the blood to the lungs for aeration, and then the heart forces it out into the general circulation to the surface of the body, and to warm the limbs.

Walking is much better exercise than riding, because walking gives a kind of massage movement to the soles of the feet. At each step taken the vessels of

the feet are alternately emptied and filled again, thus aiding in the rapid circulation of blood to the limbs. In walking one should lean forward, yet hold the head erect, with neck against the collar and chest up, with a firm and elastic step, and exercise the respiratory muscles to the fullest extent. We breathe not with the lungs, but with the respiratory muscles.

“Healthful circulation, natural waists, broad shoulders, erect carriage, deep breathing, sunshine and open-air exercise, give us the vigorous muscles, musical voices, fair faces, rosy cheeks, clear complexions, that brighten homes, lighten hearts, and cheer and bless the world with long and useful lives.”



The Best Way to Cure Dandruff

To cure an existing condition of dandruff, patient, persistent daily treatment must be given for the purpose of removing the crusts and scales, and to restore the scalp glands to a healthy condition.

The head should be thoroughly saturated with olive-oil or glycerine at least twice a day. Rub the preparation well into the scalp with the finger-tips, and at night cover the oil-washed head with a woolen cap. Continue this treatment for a week, and then proceed as follows:—

Once in each twenty-four hours thoroughly wash the head with some mild toilet-soap and rain-water; dry the hair, and apply the following oil:—

Castor oil 10 ounces.
Cologne spirits 5 ounces.

Oil of Bay 20 minims.
Oil of Pimento 35 minims.
Oil of Bergamont 20 minims.
Tincture of Alkanet to color.

If the tresses are long so that oil might be objectionable, the following preparation can be substituted:—

Resorein 4 drachms.
Glycerine 1 ounce.
Rectified spirits of wine 1 ounce.
Rose water 4 ounces.

Each morning the sufferer should thoroughly rub the scalp with the finger-tips, immersing them from time to time in cold water. After drying well, the medicinal application can be made.

The above methods rarely fail if carefully carried out; when not successful, let a good physician be consulted.—*Dr. Braucht.*

THE MEDICAL MISSIONARY AT WORK

Foods and Customs in Central China

A. C. Selmon, M. D.

THE Chinaman is at his best at meal-time. Three times a day he supplies the wants of the inner man, provided there is a sufficient supply of rations on hand. He is not so particular about quality, if there is a sufficient quantity of the food, whatever it may be. It is proverbial that rice is his standby; but for the great majority of the poorer class in China to-day, rice is an expensive food. Ground that formerly produced rice now yields China's curse — opium; and as a result, the rice crop is cut short.

The Chinese are somewhat like the dwellers in the tropics, in that their bill of fare varies with what is produced during the different seasons. They have no method of preserving and keeping fruit and other foodstuffs other than drying, and very little is dried.

During the winter months they have wheat, from which they make a biscuit-shaped loaf of bread, called *mo-mo*. This sort of bread is too expensive for the poorer people, and instead of wheat, millet and sugar-cane seeds are used for flour, and from this a very coarse, indigestible bread is made. A favorite dish with all is made of strips of dough boiled in water, with the addition of onion or some other flavoring vegetable. Great quantities of coarse vegetables are consumed, which resemble the leaves of the radish and cauliflower. In some cases dough is rolled thin, and a mass of these "greens" is cooked with it in the form of a cake. The cheapest food that can be prepared is a stew made of these "greens" with the addition of a little

salt. Many vegetables of this class are eaten raw, seemingly with great relish.

The diet of these people is certainly not lacking in bulk. The woody material is far too abundant, and large quantities must of necessity be consumed, because they are so poor in nutritive elements. As a result, diarrhea is prevalent at all seasons of the year, and there are very few who do not have dilated stomachs. The large, protruding abdomens are especially noticeable in the young children.

The common people use very little meat, and so may be classed as vegetarians. But they are not vegetarians from choice. They are very fond of meats, chicken being their favorite. All kinds of meats are very expensive, and so are beyond their reach as a regular article on the bill of fare. It is noticeable that the people are very fond of fats, and one finds that this element is very deficient in their daily rations.

No milk or butter of any kind is eaten, and very little fat is used in the preparation of foods. That which is used is bean oil and sesamum oil. The latter is a very fine cooking oil, in many respects resembling olive-oil. Very fine peanuts are raised, but are not used as a regular article of diet.

There are few obese Chinese. Among the working class the cause may be found in their hard work and impoverished diet. Among the well-to-do the almost universal use of opium keeps their bodies in a poorly nourished state.

In the first book that is studied by every schoolboy is found the statement, "The horse, cow, sheep, and fowl, dog,

and hog,—these six animals are those which man eats.” When the horse gets so old and crippled that he can no longer get about, he finds his way to the butcher shop. Many hogs are raised, and hog meat is consumed in larger quantities than all other kinds combined. In certain sections of the country dog meat is largely used, while in other parts the people would not think of using it.

The Chinese, and the Japanese as well, make a preparation from beans, called bean curd, that is inexpensive, and serves as a good proteid food, taking the place of meat.

From rice they make a thick malt sirup, which, in its taste and properties, very much resembles malt honey. The principal food products raised in the gardens are greens, onions, cabbage, cucumbers, melons, sweet potatoes, egg-plant, radishes, and various kinds of beans.

Since the struggle for existence is so keen, many things are used for food that would be considered worthless in more favored lands. It is well said of the Chinese fisherman, that all that is caught in his net is fish, and serves for food.

During the watermelon season, the people carefully collect all the seeds, and the small children may be seen on the street with their little baskets, collecting the seeds that have been dropped in the street. These seeds are roasted, with the addition of a little oil, and serve as a sort of confection. The seeds of the morning-glory are also used for food.

It is a rare thing to see a Chinaman take a drink of cold water. The water usually is secured from surface wells, which are very shallow, and are never covered, and as a rule are within a few feet of a pond or cesspool. The water is badly contaminated, and very dangerous to health. There are some wells which

are deep, and yield very good water. But as most of the water is contaminated, the people have adopted the custom of drinking no water unless it has been boiled. Tea is the drink used by old and young alike. A very cheap quality is used. A small amount is placed in the teapot, and on this boiling water is poured, and the drink is ready. The tea leaves are allowed to collect in the bottom of the teapot, and then are taken out and dried, and sold again to some one who is poorer than the original user. Tea is considered an absolute essential in etiquette. If a guest calls, and is not asked to drink tea, he considers it a grave insult. Their proverb says, “Tobacco and tea prevent a breach.”

The food of the common people is very poorly cooked. And here again it is a matter of expense. Fuel is very scarce, and no more is used than is absolutely necessary. Most of the food is cooked in an iron basin set on a stove built of mud-bricks and mud, and the fire is made of corn-stalks and straw. The food is cooked but a short time, and much of it is eaten in a poorly cooked state. Bread is cooked by steaming, and as a rule is quite thoroughly prepared and palatable. Some of the food is baked in mud ovens, and the very primitive method of baking in hot ashes is also used.

Among the common sights and sounds of a Chinese city or village is a food vender crying his wares. His outfit is carried on a pole. On one end these venders often have a mud stove, and on the stove a basin of food steaming. On the other end of the pole is carried a small table, and on this a supply of foods and a few bowls and chop-sticks.

Each class of food venders has its own kind of noise-making instruments to call the attention of the people. The man who sells fried cakes pounds on a piec

of iron. The man who has rice beats on a piece of hollow wood. The hungry native who buys a bowl of food squats down in the street to dispose of it. He obstructs the street. But the passers-by are never in a hurry, and so they do not get angry about it.

At meal-time the Chinese family do not gather about the table, but each fills his bowl from the basin, and goes out under the trees or squats down in the street, to eat his food. Bowls and teacups are about the only dishes used. The child of two years can use his chopsticks. Unless the food is in chunks, the chopsticks are used as a sort of shovel to push the food from the bowl into the mouth. The food is eaten fast, and is very poorly chewed.



Laboring in Tonga

THE use of tobacco is begun in infancy by both sexes, and, with kava drinking, is a part of the social fabric of the people of the Tongan Islands. On entering a house, if they have no kava, and do not care to go to the trouble of making it, the first word following the greeting is to apologize for not having any kava, and the next thing, the girls or women prepare cigarettes by rolling up tobacco in a dry banana leaf. To neglect this is an insult.

We have been circulating some tracts on the use of tobacco, and as a result, many have said that they were going to give it up. But they did not know what a hold it had upon them. We have urged them to seek the help of the Lord, as they could not put it away without his help. Some have given it up for a day, others for a week or two, and then they have given up the struggle, while a few have overcome the habit, so far as we know.

A man took one of the tracts home, and he and his mother decided to give up the filthy body- and soul-destroying habit, and succeeded after a long, hard struggle. But alas! a few weeks later he was seen with a piece of tobacco behind his ear, where the natives regularly carry a piece, as the scribe does his pen. On being asked about it, he replied "*Mooni* [quite true], but I had to prepare cigarettes for visitors at the kava party, and could not refuse smoking."

Three months ago I had the privilege of baptizing the first native, who had struggled for over a year to overcome the tobacco habit. You should see what a different-looking man he is since leaving off the use of tobacco, kava, and pork — trinity of filth.

Prejudice is gradually wearing away here, as the result of our medical missionary work. During the last two weeks Mrs. Butz nursed the wife of one of the missionaries through a serious illness. At the close they thanked her most heartily, and said they did not know how they could have got along without her.

E. S. BUTZ.



A FARMER in northern India lost his crops through drought; he was starving, and, moreover, he was attacked by leprosy. He lost heart, left his little plot of land, and became a beggar. Wandering into Allahabad, he was taken to a leper asylum. There he heard for the first time of Jesus Christ, began to read the Bible, and found in it supply for a long list of needs. The British and Foreign Bible Society has now received from this broken-down, leprous farmer a thank-offering of four rupees (\$1.20), which the man saved for the purpose, steadfastly followed through months, by eating a part only of each day's ration.—*Selected.*

Christ a Lover of Nature

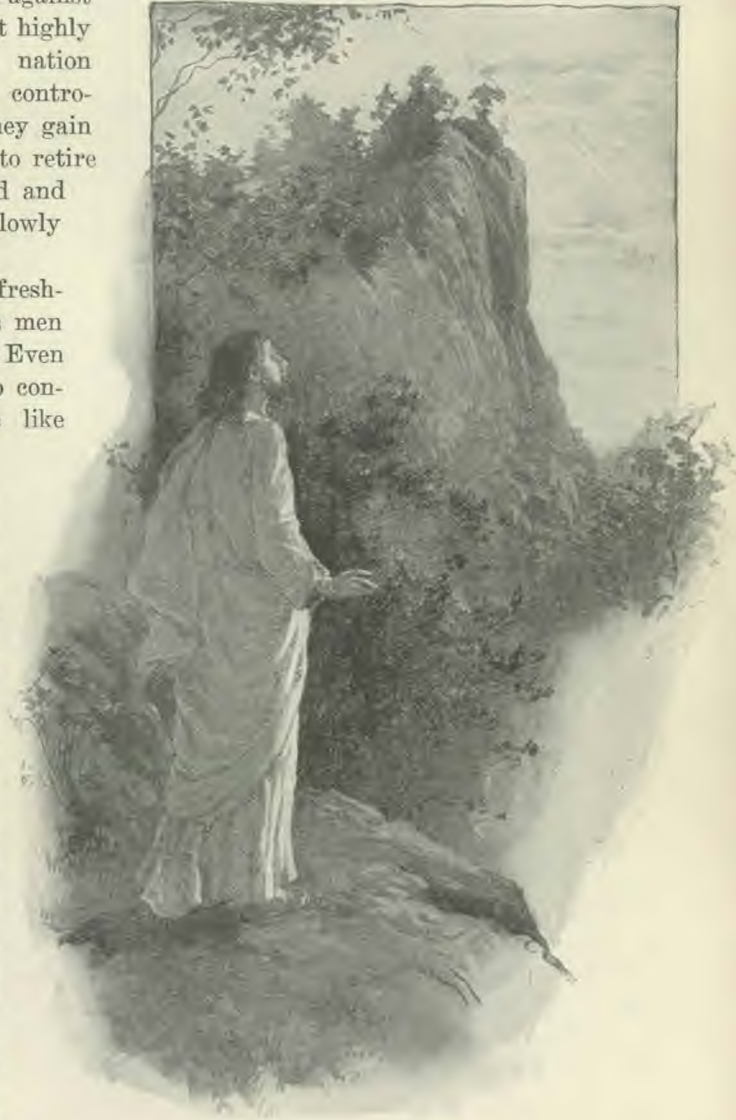
Mrs. E. G. White

DURING Christ's ministry he was continually pursued by crafty and hypocritical men that were seeking his life. Spies were on his track, watching his words, to find some occasion against him. The keenest and most highly cultured minds of the nation sought to defeat him in controversy. But never could they gain an advantage. They had to retire from the field, confounded and put to shame by the lowly Teacher from Galilee.

Christ's teaching had a freshness and a power such as men had never before known. Even his enemies were forced to confess, "Never man spake like this man."

The childhood of Jesus, spent in poverty, had been uncorrupted by the artificial habits of a corrupt age. Working at the carpenter's bench, bearing the burdens of home life, learning the lessons of obedience and toil, he found recreation amid the scenes of nature, gathering knowledge as he sought to understand nature's mysteries. He studied the Word of God, and his hours of greatest happiness were found when he could turn aside from the scene of his labors to go into the fields, to meditate in the quiet valleys, to hold communion with God on the

him in some secluded place, meditating, searching the Scriptures, or in prayer. With the voice of singing, he welcomed the morning light. With songs of



"To hold communion with God on the mountainside."

mountainside, or amid the trees of the forest. The early morning often found thanksgiving, he cheered his hours of labor, and brought heaven's gladness to

the toil-worn and disheartened people.

During his ministry he lived to a great degree an outdoor life. His journeys from place to place were made on foot, and much of his teaching was given in the open air.

In training his disciples he withdrew from the confusion of the city to the quiet of the fields, as more in harmony with the lessons of simplicity, faith, and self-abnegation he desired to teach

of his own creation, he could turn their thoughts from the artificial to the natural. In the growth and development of nature were revealed the principles of his kingdom. As men should lift their eyes to the hills of God, and behold the wonderful works of his hand,

they could learn precious lessons of divine truth. Christ's teaching would be repeated to them by the things of nature. The mind would be uplifted, and

the heart find rest.

The disciples who were associated with him in his work, Jesus often released for a season, that they might visit their homes, and rest; but in vain were their efforts to draw him away from his labors. All day he ministered to the throngs that came to him, and at eventide, or in the early morning, he went away to the sanctuary of the mountains for communion with his Father.

Often his incessant labor and the conflict with the enmity and false teaching of the rabbis, left him so utterly wearied that his mother and brothers, and even his disciples, feared that his life would

be sacrificed. But as he returned from the hours of prayer that closed the toilsome day, they marked the look of peace upon his face, the freshness and life and power that seemed to pervade his whole being. From hours spent alone with God he came forth, morning by morning, to bring the light of heaven to men.



“He could turn their thoughts from the artificial to the natural.”

them. It was beneath the sheltering trees of the mountainside, but a little distance from the Sea of Galilee, that the twelve were called to the apostolate, and the sermon on the mount was given. Christ loved to gather the people about him under the blue heavens, on some grassy hillside, or on the beach beside the lake. Here, surrounded by the works

China

THE Buddhist teaching is largely responsible for the sorcery which is so common in China. Almost every village will number among its residents one or more old women who are sorcerers.

Recently I was called to see a case of lockjaw. The woman's jaws were firmly set, and the native doctor had already been treating her by thrusting red-hot needles into the flesh of the jaws. A few days after seeing the woman, I learned that she had also employed a sorcerer; and the treatment we used having helped her some, the credit was given to the sorcerer.

It is very common for the Chinese, when sick, to employ sorcery. Believing, as they do, that the disease has been caused by demons, they have great faith in this satanic practise. As one mingles with the Chinese from day to day, it seems that there is hardly an act in the every-day life of the common people that is not influenced in some way by their heathen practises and superstitious beliefs. It is these practises which form a veritable Gibraltar to the entrance of the truth. As you think of these conditions, can you feel that you have no responsibility in giving the gospel message to those who are groping in the midnight darkness of these Satan-invented practises? "Pray ye therefore the Lord of the harvest, that he would send forth laborers into his harvest."

A. C. SELMON, M. D.



A PHYSICIAN laboring in India relates this incident as an evidence of the results that follow medical missionary labors: "A woman belonging to a respectable family, living in a town about twelve miles from Neyoor, was brought to the hospital, suffering from very extensive scrofulous ulceration of

the leg, for which there was no alternative but amputation. The leg was amputated at the lower third of the thigh, and the wound healed so rapidly and satisfactorily that three weeks from the day of operation she was able to be limping about on the veranda of the hospital, and in five weeks from the day of admission she was permitted to return home. Her husband and sister were allowed to remain with her during her residence in the hospital. They were all bigoted Roman Catholics when admitted, but the instruction they received while inmates of the hospital, was so blessed to them that before they left, they renounced the false system which they had embraced, and after a six months' probation they were received into the fellowship of the church."



India's Women and China's Daughters for June, gives on its medical missionary page a very brief report of twenty-four years' work of a hospital in Amritsar, India. In that time over 6,000 patients had been received into the wards of the hospital; in the dispensaries 765,298 out-patients had been treated; and 21,843 maternity cases had been attended to. The spiritual result of the teaching and influence of the institution was the addition of two hundred persons to the church.



IN Arabia holes are burned in the body to let the disease out. Sick children are branded with red-hot bars, and wounded limbs are chopped off, and the stumps sealed with boiling tar.



"The poorest life that any one can live, from the standpoint of pleasure, is the life that has nothing but pleasure as its end and aim."



HEALTHFUL COOKERY

AND HOUSEHOLD SUGGESTIONS

How to Arrange the Dessert

Mrs. M. H. Tuxford

THE fallacy that fruit is expensive, and adds in any material way to the housekeeping bills, deserves to be exploded; for if one goes to work in the right way, such is not the case. Of course, if you purchase fruit when it is scarce and at top prices, only a very liberal housekeeping allowance could stand the strain; but, fortunately, there is always at least one kind of fruit in market at a time which is cheap and plentiful. It may be oranges. It may be apples, the big, rosy-cheeked ones, which look so inviting when well washed, polished, and arranged on a pretty fruit dish. There is always something to fall back upon for the lover of fruit whose means are limited.

That the value of fruit as a food is much underestimated is, I am afraid, incontrovertible; but we are slowly waking up to a knowledge of our lack of wisdom in this respect, and a very good thing for all of us, too, that we are.

The proper care and arrangement of fruit should be taught to every one as a part of the ordinary routine of duties. Apples should be washed, and then polished until dry; strawberries and raspberries should be stalked, and so, too, the big ripe gooseberries. Bananas are sometimes left on the stalk, better separated. Peaches and nectarines should be very lightly and carefully placed, in

order to avoid bruising them; and in every case the fruit in question should be arranged as daintily as possible. Such fruits as currants, strawberries, plums, apples, and oranges should be piled spherically, and with leaves between each layer.

These details, though small in themselves, add greatly to the appearance of the table. Salted almonds, placed here and there in quaint white or green and white china, or pretty glass dishes, are a table adornment in themselves.



Christmas Dinner

MENU

- Mock Hare Soup with Croutons
- Protose Cutlets with Green Peas and Ideal Chili Sauce
- Potato Souffle Macaroni and Granola Nuttose Stew
- Baked Lentils and Tomatoes
- Brown Onion Gravy
- DESSERT
- Health Plum Pudding and Lemon Sauce
- Boiled Custard
- Fruit Mince Pies Sponge Cake
- Salted Almonds and Plain Wheat-meal Crisps
- Fresh Fruits in Season

Mock Hare Soup

Cook a pint of well-washed brown lentils in a small quantity of boiling water. Let them boil rapidly for fifteen minutes, then simmer until cooked. Add to the lentils, when half done, one medium-sized onion, pressing it well down in the center of the kettle. Remove the onion, when the lentils are tender rub them through a soup colander. Add sufficient boiling water to make three pints in all, and two breakfast cups of strained tomatoes, which have previously been cooked. Season with salt. Reheat to boiling, and thicken the whole with two tablespoonfuls of browned flour and one of white, rubbed to a cream in a little cold water. Just before serving add a little dried sage and one tablespoonful of lemon juice.

NOTE.—If you take some ordinary flour and carefully brown it in the oven, then, when cold, put into glass jars for thickening soups and gravies, you will be astonished at the difference when you use only the plain flour; as browning it gives the soup a rich meaty taste, as well as making it look pleasing to the eye.

Croutons are made by taking thin slices of white bread, cutting into small cubes, and toasting in a moderate oven until slightly browned and baked through. Serve some croutons on a small plate beside each plate of soup.

Protose Cutlets with Ideal Chili Sauce

Cut rather thin slices of protose from a fresh tin, dip each slice into beaten egg, and again in fine bread crumbs. Place on an oiled tin, and brown in the oven until of a delicate brown color. Serve with each cutlet a spoonful of green peas.

Ideal Chili Sauce

One quart stewed tomatoes (not strained), one large onion (sliced), one

teaspoonful celery, half a tablespoonful sugar, and one teaspoonful salt. Cook all together until of the desired consistency. Very fine.

Potato Souffle

Prepare and bake large smooth potatoes until well done. Cut off a small portion from the thinnest end, and remove all the inside, without breaking any of the skin. Season the pulp with salt, a little thick sweet cream if procurable, or a very small piece of butter and a little milk, one egg, the yolk and white beaten separately. Add the yolk to the potatoes, beat until very light. Now add the well-beaten white. Refill the skins with the seasoned potato well above the top. Put them into the oven to reheat, until of a delicate golden brown. Stand the potatoes in a vegetable dish, with the cut end uppermost, and serve hot.

Macaroni and Granola

Break into inch pieces sufficient macaroni to fill a breakfast cup, and cook in boiling water with a fair amount of salt, until tender. When done, drain, and put a layer of macaroni into a pie baking-dish rather loosely, and sprinkle over it a scant teaspoonful of granola. Add a second and even a third layer, sprinkling each with granola, then turn over the whole a custard prepared by mixing together a pint of milk and two well-beaten eggs. Salt to flavor, and, if desired, add a little sage. Bake until the custard is nicely set, and serve. Bread crumbs prepared as for croutons can be used in place of granola.

Nuttose Stew

Take half a pound of nuttose, cut into pieces not over half an inch square. Have previously prepared, one onion, two or three carrots sliced thin, and put in a buttered pan. Cook over a stove until of a deep brown. Add about one

quart of water boiling. Then add to the vegetables one cup of strained tomatoes, and one cup of green peas — canned ones will do. Put in the nuttose, and stew slowly for two hours. The longer and more slowly it is cooked, the richer is the flavor. Salt to taste, and serve hot.

Brown Onion Gravy

Heat a pint of milk, and when boiling, add two teaspoonfuls of flour which has been browned in the oven, and one teaspoonful of white flour rubbed to a smooth paste with cold water. Allow it to boil until thickened. Have ready some well-baked onions of a light brown color, and add to the gravy, after they have been chopped fine.

Health Plum Pudding

One cup white flour, four cups fine bread crumbs, one pound seedless raisins, one pound pudding raisins stoned, quarter pound mixed peel, one cup sugar, the grated rind and juice of two lemons, four well-beaten eggs. Mix all the ingredients together, and use sufficient milk and water to make it fairly moist. Put the mixture into an oiled basin, and boil for four hours or longer. The longer it boils, the richer the pudding will be. Serve with lemon sauce or boiled custard.

Lemon Sauce

Heat to boiling a pint of water in which are some slices of lemon with the seeds removed. Then stir into it one tablespoonful of corn-starch, which has been made smooth with a little cold water. Cook four or five minutes, then take the juice of one lemon and mix with it half a cup of sugar. Add this to the mixture, and allow the whole to boil up once, and serve.

Fruit Mince Pies

Fine good-sized tart apples, half a cup raisins, half a cup currants, half a cup chopped walnuts, half a cup chopped

ripe olives, one tablespoonful chopped citron and lemon peel, small half cup water, and sugar to taste with the juice of two lemons. Mix all together, and cook until the apples are well done. Allow it to get cold. Then turn into individual dishes lined with a good paste, and then cover, and neatly trim off all paste around the edge, and bake a light brown all over.

Sponge Cake

Beat the yolks of five eggs until very stiff. Beat the whites in a larger basin very stiff, until you can turn the basin upside down without the white moving. The success of the cake depends upon the stiffness of the beaten eggs. To the white, when nearly stiff enough, add one tablespoonful of lemon juice. To the yolks add three-fourths cup of sugar, and grated rind of one lemon. Beat thoroughly again. Turn the beaten-yolk mixture into the beaten whites, slowly, and with a batter whip lift and fold the yolk mixture into the whites. When all is folded in, add three-quarters cup of flour, sifting it in slowly, and folding, not stirring, to keep it light. Turn into a cake tin, and bake in a moderate oven until done.

When baking cakes, be very careful when you open and shut your oven door; do not slam it, as the jar, and the cold air rushing into the oven, cause the cake to fall, "never to rise again."

Salted Almonds

Blanch shelled almonds by putting them into boiling water, then the skins can be slipped off very easily. Sprinkle the almonds with a little salt and a few drops of pure olive-oil. Stir them well, so the salt and oil adhere to the almonds. Place in the oven and brown slightly.



BETTER lose a supper than have a hundred physicians.—*Spanish proverb.*

QUESTIONS AND ANSWERS

Conducted by George A. Hare, M. S., M. D., Iowa Circle, Washington, D. C.

[THIS department is designed to be a "Bureau of Information" on topics pertaining to health. To that end we invite questions from all our readers. Please give name and address. These will not be published if the writer prefers otherwise; but we can not pay any attention to unsigned communications.]

26. Bad Taste in Mouth.—A. L., Pa.: "When I awake in the morning, my mouth has a brassy taste, which is very disagreeable. Otherwise I have no bad symptoms except occasionally a coated tongue. What is the matter? What can I do to prevent it?"

Ans.—Your digestion is bad. You are suffering from autointoxication. Go without food for at least one day. Lemons may be used freely. Move the bowels freely with some mild laxative. Establish a regular action daily. Use a full enema of water, if necessary, every day for several days. Keep the teeth clean by daily use of soap and brush. Omit eggs, meat, milk, greasy and fried foods. Select a simple diet that is wholesome and well cooked.

Take a good hot bath, followed by salt glow and cold spray, daily for a few days. A cool bath every morning, taken quickly, will be a good tonic. Take daily exercise sufficient to get up a good sweat, a thoroughly enjoyable one, follow with a rub down of either tepid or cool water, and your bad taste will disappear.

27. Copper Sulphate—Drinking Water.—S. L., Conn.: "1. Is there any truth in the report that drinking water can be made pure from germs of typhoid fever by the addition of a small amount of copper sulphate? 2. Is not the copper sulphate very injurious to the health?"

Ans.—1. Yes. Drs. Moore and Kellerman, of the Department of Agriculture, Washington (D. C.), claim to have demonstrated that the addition of copper sulphate in the small amount of one grain to twenty-five pints of water will kill all typhoid germs in three hours. These doctors claim that the amount is so small as to have little or no appreciable effect on the health. Springfield (Mass.), Indianapolis, Baltimore, and other cities, are testing the practical value of the discovery. Dr. Wood-

ward, health officer of Washington (D. C.), is not yet sufficiently satisfied to give his approval to this method of purifying water.

Inasmuch as the matter is yet in the experimental stage, we recommend that the conclusion be not accepted till more thoroughly tested. Meanwhile you can render any drinking water entirely free from germs by boiling.

28. Cooked Tomatoes.—G. H., Md.: "Whenever I eat cooked tomatoes, I have distress; the fresh tomatoes do not affect me this way. I have no difficulty in eating other foods. Can you tell me why cooked tomatoes disagree with me? What should I do?"

Ans.—Cooked tomatoes are a good food, but evidently they do not agree with you. Because a food is good is not sufficient reason that every one should eat it. *We can not tell why some good foods disagree with some people, but they do.* We advise you not to eat cooked tomatoes.

29. Loss of Appetite; Shall I Fast?—For a long time I have suffered from loss of appetite, and have been advised to fast until I get hungry. What is your advice?

Ans.—That depends upon your condition, and the cause of your loss of appetite. If you are well nourished, but your system clogged with waste matter, that should be eliminated. If the tongue is coated, and the bowels inactive, you should fast for one, two, or three days, taking only fruit juices or lemons. These may be used freely. Under these conditions, the appetite should return within three days. Should your loss of appetite be due to overwork and malnutrition, — which is simply slow starvation, — the appetite may not call for food, although the body may be starving for nourishment. Under perfectly normal conditions, the appetite is a fairly good judge in determining the amount of food to be eaten;

but in cases of malnutrition, the appetite should be guided by scientific sense. Exercise and rest must be carefully adjusted, and cheerfulness maintained. Food must be selected, and prepared that will be attractive in appearance, pleasing in flavor, and of such quality and in such quantity as will afford proper nourishment.

30. Sterilized Milk.—I have recently seen statements to the effect that sterilizing milk lessens its food value. What is your opinion as to the comparative value of raw and cooked milk?

Ans.—Raw milk is more readily digested than cooked milk. Milk is sterilized by heating it for the sole purpose of killing the germs of disease which it may contain. For this purpose, it is not necessary to cook it, but only to Pasteurize it, that is, to heat it sufficiently to kill such disease germs as it may contain. This can be accomplished by heating it for fifteen minutes at one hundred and seventy degrees Fahrenheit, which does not impair its food value.

31. Earache.—A. L., Mich.: “1. Is earache the cause of deafness in children? 2. What is the cause of earache? 3. What is the best home treatment?”

Ans.—1. Yes; earache in children or older persons is a very serious disease, often causing rupture of the ear-drum, and in many cases partial or total deafness.

2. Taking cold is the usual cause. Catarrhal disease of the nose or throat renders one more liable to attacks of earache.

3. Let it be understood that earache is a dangerous disease, and requires prompt, energetic, and persistent treatment until cured. There are three methods of treatment, either one of which will cure almost any case if begun early:—

First, hot douche to the ear, continued till the pain is relieved, and repeated on the slightest indication of its return, the ear kept covered constantly with a thick layer of absorbent cotton until cured.

Second, a small ice-bag applied continuously for several hours, or until the pain is entirely relieved, is usually successful. The ice-bag should be removed every thirty minutes, and a

hot fomentation applied for half a minute, to preserve the reflex sensibility of the skin. In case these simple methods fail to give a prompt cure, the—

Third method, and by far the best method in severe cases, is to scarify the skin just back of the ear, and draw from one to three ounces of blood. Either of the first two methods can be used successfully at home by any one. The last method should be used only by a surgeon.

After an ear has had repeated attacks of earache, it is always well to protect it from strong drafts of cold air by wearing a small bit of cotton in the ear.

32. Infant Feeding.—Mrs. J. C., Kansas: “Is it harmful to feed a new-born baby warm water sweetened with a little sugar?”

Ans.—Yes. Water sweetened with common cane-sugar is very harmful, for the reason that a baby’s stomach can not digest cane-sugar. The fermentation of the sugar is the starting-point of a deranged digestion that often follows the child through life. Simple warm water, or warm water sweetened with sugar of milk, which can be purchased of any good druggist, is far preferable. No harm, however, will result if nothing at all is given the baby for the first twelve, or even twenty-four hours.

33. Palpitation; Oppressed Breathing.—Mr. J. N. L., Mass.: “I often suffer from palpitation of the heart and a sense of oppressed breathing. Have been examined, but find nothing wrong with lungs or heart. What is the cause? and how can I cure the trouble?”

Ans.—Your oppressed breathing is doubtless caused by the irregular action of your heart; and the heart trouble is due to a disordered stomach.

We advise you to select your food with care. Spend more time in eating, and eat much less than you are accustomed to. Eat but twice a day. Use toast or other dry food with each meal and chew it thoroughly. Do not drink at meals. You will find a thorough daily treatment of hot and cold to the stomach and bowels, followed by massage to the stomach and bowels, taken two hours after meals, of much benefit.





Smallpox in Chicago

DURING the last of October, Chicago suddenly developed thirty-six cases of smallpox in widely scattered sections, among people who had not had any intercourse with each other. None had been out of the city, and the only explanation, which seems to be at all satisfactory, is that all these cases developed from unsuspected cases of last year. They developed shortly after the first cold snap when probably bedding which had been stowed away during the warm weather was taken out.

It was noted that of the thirty-six cases, twenty-seven had never been vaccinated, and three, aged thirty-four, thirty-nine, and forty-two years, had "imperfect non-typical marks of vaccination attempted in childhood."

Attention is called by the *Chicago Health Bulletin* to the report of the Director of Vaccination in Hamburg, Germany, covering some six hundred thousand vaccinations, showing "that not only is it not true that the three weeks following vaccination are weeks of exceptional danger, but that the exact reverse is the case; namely, that these weeks constitute a period in which the death-rate from such diseases as bronchitis, pneumonia, diphtheria, measles, scarlatina, cholera, convulsions, brain inflammation, and diarrhea fall one seventh to one twentieth of that to be expected from the known mortality for the given ages."

These statistics covering the results of

such a large number of vaccinations are important, and should have due consideration.

The *Chicago Health Bulletin* also calls attention to the fact that one third of the cases were under six years of age, and that the younger the child, the more severe and fatal is smallpox. They urge parents not to wait till school age to vaccinate.



Coddling

A MAN came, one April, from the snow and ice of Michigan to a place in California where geraniums and calla lilies live out doors all winter, and to our surprise, he could not keep warm. While native Californians were comfortable, he was walking up and down, trying to find a sunny, protected spot, (for there were no fires except in the kitchens).

I learned later, when I went to Michigan, that the inhabitant of a severe winter climate is apt to live in a warmer atmosphere in winter than the inhabitant of milder regions. While in milder countries, people are apt to endure a little chilliness rather than make a fire, in cold climate, shortly after the approach of cold weather the furnace, or base burner or latrobes are set in operation, and kept hot until the next spring.

The family soon get accustomed to the stove heat; and the colder the weather becomes, the more the hot-house process progresses, until, in the dead of winter, some people are living in a climate

which would be called uncomfortably warm in spring or summer.

Under this relaxing and enervating process, it should not be a matter of surprise, that going out from such overheated houses into the sharp air causes an irritability of the air passages with acute cold, or catarrh, if not pneumonia.

This "coddling"—keeping the house at incubator temperature—may be a good way to hatch eggs, but it is not the best way to preserve health.

Every house should be supplied with thermometers and these should not be allowed to get higher than sixty-five degrees, in winter.



The objections made to ventilation are the expense and the danger of drafts. Neither is valid when we consider that the health is absolutely dependent on a liberal supply of fresh air.

The people who are enfeebled by an artificial climate are the ones most sensitive to drafts. The very attempt to prevent cold—closing windows, pasting up cracks, and closing out as far as possible all fresh air, is a sure way to invite a severe cold.

Over and over again has it been demonstrated that the cure of tuberculosis must include the fresh-air treatment. This does more than anything else for the consumptive. Colorado climate will not do much for those who house themselves indoors; and the rawest eastern climate may accomplish wonders if the tubercular patient is kept out of doors—properly protected, of course,—day and night.

On the other hand, tuberculosis spreads most rapidly, and does its most effective work in badly ventilated houses. The health of the air passages and lungs demands pure air. The won-

ders that can be accomplished for consumption by open-air methods is an indication of what may be done for less serious cases of throat and lung trouble by the open-air method.

Besides, many people who never suspect it, have tuberculosis, as has been abundantly proved on the post-mortem table. Thousands have tuberculosis who think it is only a cold. Many get well. No doubt the ventilation, in any case, is a strong factor, determining whether the case shall get better or worse.

Ventilation costs a little in fuel but it saves an immense amount in health.



Muscle Heat Versus Stove Heat

A SCIENTIST produced artificially an intensity of cold sufficient with pressure to liquify oxygen. Such a temperature is never known on this globe except under artificial conditions. It is way down below the freezing point of mercury. He subjected himself for a while, properly protected to prevent freezing, to an artificially chilled atmosphere, the result being that it caused in him an intense hunger. So he believed he had found a new method of curing loss of appetite.

But it is a very old method. Every one living in a sharp, bracing climate has noticed how much more keen the appetite is in winter than in summer. It is especially so if the effects of the cold are not neutralized by stove heat.

Exercising in the cold gives a double edge to the appetite, food being required in large quantity to replace that used both in the muscular work and in the extra labor of heating the body. The man who, on a frosty day, works up two or three cords of wood, will relish plain food, and will digest it, even if it is—as is usually the case in rural regions—food quite difficult of digestion.

One who has sought in vain, through the use of "tonics" and other patent nostrums, for an appetizer which will not go back on him, will, if he can be induced to try the effect of a combination of exercise and cold, be surprised at the results. Here he will find, not a deceiver, a nerve fooler, but a real tonic.

Fortunate is he who has a little bracing air to get into in winter, and doubly fortunate is he if he knows how to make good use of it.



THE Iowa Health Bulletin wonders why it is "that young men and women, as well as older ones, have such robust physical constitutions that they can sit in the open air, subject to varying atmospheric condition, for hours, witnessing an interesting ball game or horse-race, and never take cold or suffer any bad effects, and yet, if they sit an hour or an hour and a half, listening to a literary or scientific address or a church service, under apparently more comfortable and less exposed conditions, they are sure to get their 'death of cold.'"

The answer is not hard to find when it is remembered that some of the important causes of cold are impure air, exposure to cold air after long confinement in close quarters, and, perhaps, infection from others when in a close assembly room.

Motor-men and others exposed to more or less inclement weather are, as a rule, quite exempt from cold.

There is a possibility, also, that the acute excitement and intense attention which is present in witnessing sports, and which is probably entirely absent in listening to a lecture or a sermon, may tend to make the body temporarily more resistant to outside influences.

RAILROAD survey men in Western Canada, so we are told by Dr. Hessler, sleep for years in the open air or under tents, and never have colds except when they sleep in a room while passing through some village. So invariably is room sleeping followed by a cold that they dread to sleep in a house. He relates the following incident: "Two men with whom I was associated had just spent the winter under canvass in a temperature varying from thirty degrees to fifty degrees below zero, and with continued good health. Fresh from this experience, they spent one night in an attic of a hotel in Regina, Assiniboia. The next day we left for camp on the prairie, and both developed an attack of dust coryza. This they affirm to have been their constant experience after one or two days of town life."



Stuffy Rooms

AIR, we must have, or die. Pure air we must have, or lose health. It is poor economy that cuts off ventilation to save fuel. Cold air is not necessarily pure air. It is not cold enough to freeze the germs or precipitate the poisons. Stuffy air is bad air, no matter how cold it is.

The way to know whether the air of a room is stuffy or not, is to go out into the open air for a while, when upon returning, if there is a stuffy odor about the room, the air is unfit for use.



What Are Health Foods?

ARE they factory foods?—Possibly; but not necessarily so. Before factories existed or were dreamed of, there were health foods,—foods "ready to eat," pleasing to the eye and nose, tempting to the palate, dainty, nourishing, and healthful.

The laboratories of man can not compete with the laboratories of nature in producing foods adapted to all man's wants.

Imagine for a moment that the food-factory people had lobbied a bill through the legislature abolishing orchards and fruit stores, and establishing in their place food factories, and shops selling cartons of bakery and laboratory products. What would result? — A howl of rage from all classes. Later, probably, an outbreak of scurvy.

There are people, it is true, who seldom, if ever, eat fruit; some seem better off without it; but for the vast majority of mankind fruit is almost a necessity.

As a rule, too much is claimed for factory foods. Some are not only *not* health foods, they are the opposite; and all are liable to be if eaten too exclusively.

With some, the nut foods act like poison, causing in some cases, disturbance out of all proportion to the quantity used. There are some who seem unable to tolerate peanuts in any form. Others can eat these foods in moderate quantity, and seem the better for it. Others, still, can seemingly eat large quantities with comparative impunity.

The nut foods are rich in proteid and fat, and where they do not cause digestive disturbance, they constitute a most excellent form of food, though quite expensive for people of limited means.

Most people (the ordinary people who are not as a rule regarded as invalids), do best on a liberal supply of ordinary foods — farm foods rather than factory foods — simply cooked, without grease, condiments, and complicated mixtures.

For people who, from habit or through nervousness, eat too fast, the dry, "predigested" foods are excellent, as they compel a certain amount of mastication.

But such people are likely to neutralize this good effect of the foods by pouring cream or other liquid over them.

Many of these foods are valuable to eat in addition to ordinary foods — for people who can afford them — and really they are not so expensive after all.

As a rule, people eat too fast and too much. By taking some of these dry foods, reducing the quantity eaten, and perhaps the number of meals, eating slowly with thorough mastication there might be a wonderful improvement in health without notable increase in expenses.

And if time in preparation is an object, the "health foods" are often a decided advantage, being "ready to eat at once."

Properly used, they save time, they save health, they replace many unhygienic mixtures, they add a pleasing variety.



DR. J. HOLLINGER, of Chicago, discussing a successful treatment for catarrh, said: "How long after Dr. Stucky has given that course of treatment, does the patient stay cured? A man goes back to the same mode of living, and in six months he is as bad as he ever was. We all know these patients, and how much they bother us. If we can make a man understand that he has his muscles to use, his legs to walk with, and his arms to exercise, we shall accomplish much more than with these cures, which tend to substitute one disease for another."



NATURE delights in the most plain and simple diet. Every animal but man keeps to one dish. Herbs are the food of this species, fish of that, flesh of a third. Man falls upon everything that comes in his way. — *Addison*.

Books

[It is the aim of the Editor to notice in this department only such books as have a bearing on health, and which, as a whole, he can recommend. It is not to be understood, however, that he indorses everything in the books here noticed.]

The Manual of Childbed Nursing

which was originally prepared for the Long Island Hospital Training-school for Nurses has been revised and rewritten, with the purpose of making it available not only for nurses, but also for mothers and all who are interested in obstetrics.

There is no padding. The material which might have been spread to fill a two-hundred-page book is here boiled down to less than eighty pages of text, and arranged for ready reference.

While the author, in common with most medical men, believes a small amount of meat is necessary, he limits that to once daily, and, speaking of the expectant mother, says: "Fried dishes, pastry, rich foods, excess of meats, of sweets, and of tea and coffee, and over-eating should be avoided."

In giving directions for preventing infection, the author is explicit, preferring to err, if at all, on the safe side. He certainly believes that "it is better to be sure than sorry." The difficulty will be that people unable to employ a trained nurse will not be likely to follow all the details, and they may not be able to distinguish between the more important and the less important measures. To get people who are not accustomed to do so to adopt sanitary methods, they must be simple.

"MANUAL OF CHILDBED NURSING," with Notes on Infant Feeding, by Charles Jewett, A. M., M. D., Sc. D., Professor of Obstetrics and Diseases of Children, Long Island College Hospital. Fifth Edition. Revised and Enlarged. New York, E. B. Treat & Co. Clo. 84 pages; 80 cents, net.

The directions for artificial feeding will be found of especial value, particularly the directions for modification of bottle milk.

The book ought to be of much value to any one having or expecting to have, the care of an infant.



Principles of Cookery

THESE little books, as their name indicates, deal in principles. The cook-book tells you how to cook, giving the details for the preparation of each dish, and you wonder, perhaps, why such and such procedures are necessary,—why a hot oven for one food, a slow fire for another; why start certain foods in cold water, others in hot; why some dish is not so good if some apparently unimportant step in the process is left out.

In these unassuming books, these whys are answered. The attempt is not made to give a long list of recipes,—that is left to the cook-books,—but to so teach principles that one will be able to cook without recipes,—to use the utensils, the fuel, the materials at hand, and get from them an acceptable meal.

Economy (in time and in foods) and health are points which the writer makes important. While the books treat of the cooking of meats and other articles not approved of by LIFE AND HEALTH, we feel free to recommend this course to any one who wants to understand the

"PRINCIPLES OF COOKERY:" parts I, II, and III. Written by Anna Barrows, Director Chautauqua School of Cookery, Lecturer, Simmons College, Boston. Illustrated. American School of Household Economics, Chicago. Five by eight inches. Paper-bound. 50 cents each.

principles underlying the art of cookery.

The instruction is extremely practical, and the student is expected to work out in her laboratory, the kitchen, the various problems, and learn from her own work rather than from the book.



Save the Boys

To help stem the tide of evil which is sweeping off the rising generation in the tobacco habit, Mr. H. G. Phelps, of Minneapolis, is publishing a booklet of twenty-four pages, which he mails at \$1 a 100, or 60 cents for 50.

Parents naturally desire to fortify

their sons against the habit. The best way to accomplish this is by furnishing them the facts regarding the injury caused by tobacco using. The leaflet will be found most valuable for this purpose. Warn your boys before they get the habit fixed.

Mr. Phelps also publishes a monthly journal *Save the Boys*; 12 pages, 30 cents a year, or 20 cents when ten or more copies are sent to one address.

Be sure your boys understand the danger of the tobacco habit, and you may, as a result, save them. Address H. F. Phelps, 118 West Minnehaha Boul., Minneapolis, Minn.



ONE doctor is responsible for the belief that the long fast between supper and breakfast — the complete emptiness of the stomach during sleep — adds greatly to the amount of emaciation, sleeplessness, and general weakness we so often meet. Possibly! But some people — many people, I might say — have found health not only in fasting between supper and breakfast, but also in doing without a late supper, perhaps eating nothing after four or five o'clock.

It is not for me or any one else to say that some are not injured by this night "fast." There may, possibly, be some that should get up several times in the night to be sure that their stomach-walls never have a chance to rub together.

But the evidence that is forcing itself on thinking people, as a result of experimental work by eminent physiologists, is leading to the belief that people as a rule eat too much and too often, rather than the opposite.

The study of Mr. Fletcher's work is of especial interest in this connection.

"COLDS" may result from exposure, especially of a part of the body, to a cold draft; from sudden changes in temperature; from chilling when overheated; from breathing cold dry air after leaving an overheated room; from dietary errors, especially overeating, with insufficient exercise. Avoid a cold; for it may be the beginning of a period of decline, terminating in death.



Do not, because it is cold weather, be afraid of the cold hand bath. If it was good in summer, it is excellent now. It should not, however, be taken in a chilly room.



SOME people seem to be afraid of sunlight, even in winter. They are preparing to get down about six feet below where sunlight reaches.



A LECTURER in a prominent medical college used to say he never expected to be more than "a hod-carrier to nature."

News Notes

Pure Foods

THE health offices of Montclair, N. J., have been unusually successful in their control of the milk supply. They make public the conditions of all dairies, so the people may know what kind of milk they are getting. The dairymen have learned that it is useless to attempt to market unclean milk, for the simple reason that the public will not buy it. "The successful dairymen have brought their plants to a high degree of perfection, and the others are compelled to follow their example by the mere force of competition. Nearly all the men keep their cows in stables which are ceiled, and which are cleaned twice daily. The use of straw and meadow hay for bedding has been given up by all of the best dairymen, and by most of the others. The feed is carefully selected, and the cows are kept clean and in good condition."

THE health department of San Francisco publishes a bulletin in which they give the rating of dairies inspected. They give the name of the dairy, name of the owner, condition of barns and milk rooms. Of seventy-two dairies examined, twelve are rated good, sixteen fair, and forty poor!

A few of the dairies are in such miserably bad condition that the health officer recommends that the premises be vacated, and the permits to sell milk in San Francisco be revoked.

It would seem that, with such a large percentage of bad milk entering San Francisco, the consumers would be sufficiently interested to learn from the health departments whether the milk they are using is of good quality.

Communicable Diseases

TEN extra inspectors are at work in Chicago on account of the recent increase in smallpox cases. An effort will be made to see that every person in the city is properly vaccinated. The city council has appropriated fifteen thousand dollars at the request of the health commissioner, to be used in fighting the smallpox epidemic.

NEW YORK CITY makes free examinations in cases suspected of tuberculosis, malaria, and typhoid fever. Washington city has an office where any one suspecting that he may have tuberculosis will be examined free. These efforts will enable the poor to detect the nature

of their disease in its initial stage, and thus have a better opportunity to treat it successfully.

SINCE the opening of the drainage canal, there has been a remarkable drop in Chicago's typhoid fever mortality, to less than one third of what it formerly was. From having a typhoid death-rate higher than any other large civilized city, it now has one among the lowest.

The sewage, which formerly entered the lake and contaminated the drinking water, now passes away by the drainage canal.

Sanitation

THE health officer of Buffalo, N. Y., has begun a commendable crusade against unsanitary tenement houses. The State laws empower him to vacate any premises which are unfit for habitation. He had the backing of the newspapers and the public; and the Charity Organization Society undertook the care of the tenants thus rendered homeless. A number of the worst tenements were either vacated or put in order. Many landlords, frightened at the turn affairs were taking, have begun to improve their premises without waiting for a notification.

A NEW form of sanitary inspection has been adopted in London, which might well be followed in America. The sanitary arrangements, storing, preparation, and cooking of food in the restaurants, are carefully inspected by a medical officer, and certificates are issued to those restaurants which are in a sanitary condition. It is said that the proprietors do not resent this inspection, but rather invite it, as they are eager to secure the certificate of cleanliness. If such an inspection could be conducted in this country, not by such men as have had in charge the inspection of steamers in New York, but honorable, conscientious, fearless men, it would be a good thing. If such department fell into the hands of the usual city ring, it would be worse than useless.

THE board of health of Cambridge, Mass., has begun a crusade against the unventilated condition of street-cars.

THE State of Kentucky is continuing its war against plush seats. It is the intention of the health officers to indict every railroad officer who can be held responsible for continuing the plush seats. Cane or leather are permitted instead of plush.

THE Pennsylvania Railroad is installing a new ventilating system in its cars, insuring a much better supply of air than is the rule on other roads. It has not as yet applied the system to sleepers.

Education In Hygiene

THE Philadelphia Department of Health and Charities has arranged to deliver to the public-school teachers lectures on "The Detection of Contagious Diseases." A little judicious precaution may thus be the means of averting disastrous epidemics.

IN Buffalo, N. Y., a complete system of medical inspection of schools has been inaugurated. Unvaccinated children are excluded. A physician is sent daily to every school to inspect pupils, and detect contagious or infectious diseases. In the poorer districts trained nurses instruct the children in cleanliness, and go to the homes, teaching the parents the necessity of keeping the children clean.

Miscellaneous

A SCIENTIST who has investigated the matter is said to have stated that men employed in the Paris sewers are as healthy as the average person, and that no other eight hundred men are so free from infectious diseases.

IN view of the fact that a number of people in New York City recently died from drinking whisky which was found afterward to have been adulterated with wood-alcohol, it is well to remember that Dr. Wiley, the government chemist, states that about eighty-five per cent of the whisky in this country is adulterated. It is not all so villainous as the New York article, but all of it is excellent to let alone, except as a fuel in alcohol stoves.

A CURIOUS marriage occurred recently in a Philadelphia hospital, where the groom had been taken a few days before. The bride insisted that the marriage be consummated without delay, and, securing the permission of the officers, a magistrate was called up, and by telephone asked the necessary questions, the answers being witnessed to by others in the ward. The man died seven hours after the ceremony.

F. W. HEWES in the October *Pearson's*, in an article entitled "How the American Is Changing His Food," shows, from figures taken from the last census, that the tendency among Americans is toward the consumption of less meat and more vegetable products.

He contrasts the consumption in 1850 with that in 1900, giving the amount of each article consumed in one year by each one hundred persons. Below are some of his figures: —

	1850	1890
Sheep	94	50
Hogs	118	43
Cattle	25	20
Wheat, bushels	430	623
Oats, bushels	90	386
Sugar, pounds	23	65

There seems to be an increase in dairy products and eggs, though the comparison is given for only the decade from 1880 to 1890.

But taking the animal products together, and comparing the value, in dollars and cents, of the products consumed, Mr. Hewes concludes: "Our meat food in fifty years has decreased by thirty-six per cent, and our vegetable food has increased by eighty per cent."

THE Department of Agriculture has recently examined wall-papers and clothing for the presence of arsenic. While they failed to find in papers arsenic in dangerous amount, they found in colored stockings, especially in black stockings, a quantity sufficient to be a menace to health. Furs and fur rugs also contained dangerous quantities of the poison.

ACCORDING to Eli Metchnikoff, of the Pasteur Institute, sour milk contains a large bacillus (germ) which does not exist normally in the human body, and which hinders the growth of the more dangerous microbes which commonly infest the intestines.

Some of these intestinal germs, it is believed, hasten the advent of old age by producing poisons which are absorbed into the blood current, and which hasten the hardening of the arteries.

The Bulgarians, who, as a rule, live to an advanced age, consume large quantities of sour milk.

Progress in Medicine and Allied Sciences

J. R. Leadsworth, B. Sc., M. D.

RECENT medical literature furnishes frequent reference to cases of blindness or permanent impairment of vision, and, in not a few cases, death by the ingestion of variable quantities of wood-alcohol. This substance is supplied as "Columbian spirits," "colonial spirits," "eagle spirits," etc., and is frequently used by unscrupulous pharmacists in the manufacture of Jamaica ginger, lemon extract, bay rum, cologne water, witch-hazel, essence of peppermint, essence of lemon, and many other domestic and proprietary articles. Under the old process of manufacture wood-alcohol was so abhorrent to the organs of taste and smell that even a small percentage in any mixture would not be taken by a person in his right senses, however much he craved alcoholic drink. But under improved methods of manufacture these safeguards have been removed without in any way lessening its poisonous properties.



Neils R. Finsen, of Finsen ray fame, died in Copenhagen, Denmark, September 24. Finsen was among the first investigators to successfully use light in the treatment of some chronic skin affections. His work was characterized by the thoroughness of his observations, and the unselfish manner with which he employed himself for the benefit of suffering humanity. Lupus Vulgaris, or tuberculosis of the skin, a most repulsive disease, and one which previous to the work of Finsen, resisted the most

approved methods of treatment, is now treated with the most promising results. Several years ago the writer had the privilege of seeing several hundred cases at the London hospital under treatment by the Finsen method. Some of those had come thousands of miles for treatment, and had been compelled to wait several months for a vacant place among the long list of patients. One case of particular interest was that of a middle-aged lady upon whom the disease had preyed for a number of years, destroying the entire nose and almost the whole side of the face and orbit. After a few months' treatment by the Finsen lamp, a cure was effected, normal tissue seemed to replace entirely that which was destroyed, except the nose. For this a fairly passable appendage was made by a local expert in wax-work, and altogether this patient presented a marked contrast to her former appearance. In recognition of the great boon conferred upon humanity by the work of Finsen, his funeral was an imposing public ceremony, attended by the kings of Denmark and Greece, the queen of England, Prince Henry, of Prussia, as the representative of Kaiser Wilhelm, and numerous other princes and their representatives. The king of England was duly represented, and sent an autograph letter of condolence to Finsen's widow. Queen Alexandria attended in person. The entire cabinet attended in a body with other high dignitaries, and the delegates from medical and scientific societies could scarcely be numbered.

LIFE AND HEALTH

(Continuing Pacific Health Journal)

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G. H. HEALD, M. D. - - Editor

G. A. HARE, M. S., M. D., Associate Editor

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With the Publishers

Thank you.—New subscriptions for LIFE AND HEALTH have been coming in lively for several weeks. Our subscription list is going up rapidly. From Truckee, Cal., comes a list of thirty-seven new subscribers, and from many other places good lists of yearly subscribers are being received. Besides these, individual orders for twenty-five, fifty, one hundred, and five hundred copies are coming by telegraph and by mail.

We wish to thank our readers for this hearty, spontaneous expression of appreciation. It inspires editors and publishers alike to improve the magazine in every possible way.

Please continue these good efforts, and remember that every new subscriber for 1905 gets the November and December numbers of this year free.

We are offering special inducements to agents during December. Write us, and we will give full particulars.

About our covers.—Some people were kind enough to say that they did not like our July cover. Others said that the

cover on the August number was "fine," but that the one for October was the "best yet." Their adjectives run short, however, when they saw the November cover, and all agreed that it was "the best of all."

Your Suggestions concerning the contents of this journal, or what you think it ought to contain, will be thankfully received at any time, and will be given careful consideration.



THE Christmas menu given in this number is intended to be merely suggestive. Each one will want to vary it to suit circumstances. Those who prefer a smaller variety can make selections from the list; for instance, the soup, one nut food or the lentils, one vegetable, and the macaroni, one dessert, and an assortment of fruit, might be a suitable selection.

Protose is a nut food made at Battle Creek, Mich. It may be obtained at any depot handling the Battle Creek foods. Nuttose, so far as I know, is not manufactured in this country now. It is a nut product. One of the Battle Creek products, protose or nuttolene, may be used in preparation of the stew, or some of the nut foods prepared by other manufacturers, though I have had no experience with any but the Battle Creek foods.

H.



PHYSICIAN WANTED.—Finest-equipped treatment rooms in Southern California, with growing city practise. Splendid opening for enterprising man. Climate unexcelled. Reason for selling, appointment elsewhere. For particulars, address Dr. J. R. Leadsworth, Riverside, Cal.

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