# Herald of Health

Vol. 4 Lucknow, U. P. April, 1913 No. 4

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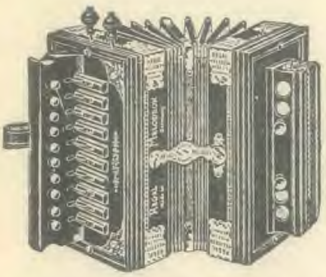

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# HERALD OF HEALTH

The Indian Health Magazine.

V. L. Mann, M. D., Editor - - - - - S. A. Wellman, Asso. Editor.

Vol. 4 Lucknow, U. P., April, 1913. No. 4

## Diabetes; Cause and Symptoms

THIS disease is charcterized by a copious flow of urine which is charged with sugar, resulting from a disturbance in the processes serving to maintain and to deal out to the blood a constant and equable supply of carbohydates, which are derived from the glycogenic reservoirs of the body.

Diabetes is one of the oldest diseases known to mankind. It was observed by the Roman Celsus aud the Greek Aretaens who lived in the first century of the Christian era: The early East Indian physicians recognized the disease as accompanied by large quanties of urine, weakness, emaciation and excessive thirst. It was not until about the sixteenth century that anything was contributed to medical literature on this disease.

It is more common in some countries than others. It is common in Sweden, Southern Italy, and India, while on the other hand it is rare in Holland, Russia. and Brazil. The rich and well-to-do are affected more than the poor. This is consequent from an excess of the luxuries of life. This fact is quite noticeable in India. It is the Indian who has given up his simple diet and indulged in the more complex one that seems to suffer most. It is most frequent among the males, and between the ages of 30 and 60 years. The Hebrews are more susceptible than the Christians. When it occurs in the young the patient rapidly reaches a fatal end. It seems to run in the family as is often shown by their history, thus giving the disease a hereditary taint.

When one tries to explain the cause of diabetes, he has more or less to theorize. We know considerable concerning what changes take place in the body during the course of this disease, but as to what brings about these changes physiologists do not agree. This last decade has added considerably to our knowledge and we hope that medical science a few years hence will be able to add considerably to any present knowledge.

If the reader will remember, in a former article we showed how the carbohydrate contents of our food was utilized by human economy; that it was changed to a form of sugar called dextrose or glucose before absorption, and that it was carried from the intestines by a branch of the Portal vein to the liver, where part of it was stored up in this organ as glycogen and again delivered to the system as it was needed. The muscles also have the power of storing this glycogen. By means of these storage reservoirs the blood is kept supplied with .12 to .18 per cent of glucose in health, but anything that causes an over stimulation of this process, or if the inhibitory process is removed, we get an increased amount of sugar in the blood and consequently a resulting diabetes. Upon the fact that the removal of the pancreas or its destruction by dis-

ease is followed by a rapidly fatal diabetes, and that this is overcome by transplanting pancreatic tissue, we would naturally look to this organ for a share in maintaining a balance in the sugar stored up in the liver, muscles, and possibly other organs as reservoirs. Also upon the fact that removal or disease of the suprarenal glands, thyroid gland, and pituitary gland, produces as a result, sugar in the urine, it would seem very probable that these organs play a part in preserving the sugar metabolism of the body. With these facts before us, it is conceded that the pancreas furnishes the blood with what we call an internal secretion that has an inhibitory influence upon the dealing out of the sugar stored up in the liver and muscles in the form of glycogen. In other words this organ bears the same relation to this process that the governing balls do to the engine. Therefore destruction of the pancreas by disease or otherwise, results in an overproduction of sugar from glycogen. This causes a higher percentage of sugar in the blood and sugar in the urine.

On the other hand it is the supparenal glands and possibly the pituitary and thyroid gland that furnish the blood with a substance technically called "hormone" that stimulates, or causes the glycogen stored in the liver, muscles, etc., to be changed to sugar and dealt out to the blood in proper quantities. Disease in these organs furninshing the hormone causes an excess in stimulation or overproduction with a resulting high per cent of sugar in the blood and sugar in the urine. Therefore in maintaining a balance in the sugar processes of the body there are two factors involved: one resides in the pancreas as an inhibitory process, and the other in the suprarenal glands as a stimulating process. Each one of these processes holds the other in check, and a disturbance in either process results in sugar in the urine. This is the best and most satisfactory explanation in the present light of medical science for the cause of diabetes.

The symptoms of diabetes are many and varied. What will be a prominent symptom in one will be insignificant in another individual. Generally the first symptoms noticed are an excessive thirst and an increased output of urine or polyuria. The throat becomes dry and the spittle becomes thick. The skin also shows dryness with a resulting harshness. An intense itching is sometimes set up in the skin. Until the vital resistance is greatly lowered, there is a voracious appetite. The patient steadily looses weight and grows weaker and weaker. The loss of sexual desire is a very common symptom. Because of the lowered condition of the defences of the body, boils, carbuncles, and gangrene put in their appearance. Eczema, dyspeptic symptoms, and constipation are very frequent accompaniments of the disease. Finally the patient goes into what is called a diabetic coma caused by an acid intoxication resulting in aceteone, diacetic, and oxybuturic acids in the urine. The urine, being voided in large quantities (sometimes as high 18 to 20 seers), has as high as 40 to 50 ounces of sugar a day in it. These are extreme cases. The sugar contents makes the urine have a very high specific gravity. The blood becomes charged with sugar, assumes a higher specific gravity and its alkalinity and red blood cells are diminished.

Some of the more uncommon symptoms are neuritis or irritation of the nerves. We have in mind now a patient in India whose principle annoyance in this disease is an intractable neuritis. Various disturbances of sight, changes in hearing, taste, and the sense of smell may be experienced. Spongy gums, sweating, and edema are infrequent annoyances accompanying this complex symptom.

# General Articles

## Modern Dietetic Ideas

By David Paulson, M. D

WITHOUT exception the first advice the doctor gives to a patient suffering from Bright's disease is to discontinue the use of flesh food. The patient may plead, "Doctor, what about chicken?" The invariable reply is, "No, you must not touch meat at all."

Every sensible, up-to-date physician gives similar advice in a case of acute rheumatism, and also in fever, and more than likely in a severe attack of autointoxication.

But there is something even better than this, and that is to discontinue the use of meat one year or five years earlier and not have the disease at all. For what can cure a disease certainly ought to prevent it, and so it would in most instances.

I object to a flesh diet because it hurts my business. As a healer of disease, I am naturally opposed to all those things that produce disease. I am glad to help sick people become well, but it is a much greater inspiration to help well people not to become sick.

Gautier, one of the best recognized authorities in the world on scientific dietetics, writes:

"A meat diet acidifies the blood and diminishes the oxidation. . . . It congests the liver; it brings on obstinate constipation, and causes dyspepsia, gastric difficulties, and enteritis; it leads to psoriasis, eczema, etc.; it develops rheumatic, arthritic, gouty, and nervous tendencies. It produces arterial hypertension (high blood pressure ) and heart fatigue, and becomes one of the most active predisposing causes of arteriosclerosis (hardening of the arteries) . . . . A diet, the exaggeration of which is the origin of so many physiological and morbid disorders, could not be favourable to the good development of the family or of the race."

### Cancer and Gastric Ulcer

Gastric ulcer is rapidly becoming one of our most common diseases. Our great surgeons have demonstrated that it is ten times more prevalent than was formerly supposed. Several years ago Dr. Fenton Turk, Chicago's eminent stomach specialist, stood up before the American Medical Association and said : "Gentlemen, gastric ulcer is a meat-eater's disease. It is unknown where there is no meat-eating."

Merely to mention the word "cancer" starts a shudder through us. All experienced physicians believe that this disease is increasing enormously among civilized nations. There are a great number of physicians who believe that cancer is largely caused by meat-eating. Dr. Bell of England not only maintains that cancer is largely due to this, but that in the early stages cases have been cured by adopting a vegetarian programme. A medical editor ridiculed this idea, and Dr. Bell sued him, and made so good a showing in court that he was recently awarded ten thousand dollars damages.

Dr. W. Roger Williams, one of the scientific authorities in England, has insisted for years that the rapid increase in cancer in Great Britain has kept pace with their increase in the use of meat. He has investigated the question the world over, and has found that non-meat-eating people are practically free from cancer. In Canada there is a large colony of religious people who originally came from Russia. They are strict vegetarians. It is said that there

has never been a case of cancer in that entire colony. If what I am suggesting shall finally be sustained as an absolutely scientific truth, it is evident that that alone is amply sufficient to blacklist meat as an article of diet.

The universal prevalence of high blood pressure among the middle-aged in active life is becoming a standing menace to humanity. Men are dropping dead in the streets, of heart failure; strokes of apoplexy are becoming distressingly frequent. It is now known that in addition to our modern strenuous life, the waste products of meat, the nicotine of tobacco, and the caffein of tea all tend to develop this condition.

### Food Plus Ashes

Meat is partly burned food. It is nourishment plus ashes; and it is the ashes, the waste products, that I seriously object to, and that are responsible for a large share of the mischief produced by meat-eating.

Contrary to the usual notion, the animal kingdom does not make any food at all. Every bit of nourishment there is in the earth to-day was created by the plants. The plant kingdom reaches down, lays hold of the dead minerals, absorbs the gases from the air, and aided by the moisture and wooed by the sunshine, builds us food. The animal consumes this plant food, burns up most of it, leaving the remainder, more or less burned, as muscle.

But it takes about ten pounds of corn to make one pound of flesh. In other words, the animal, instead of making food, burns up about nine pounds to make one, and leaves a lot of ashes clinging even to this pound. The food that the animal eats is largely used in furnishing energy for its various activities, but a small part is stored away as muscle, and when we eat flesh we are simply eating the original food made by the plant plus the ashes made by the animal.

Some will say, "When a cow eats hay, and I by and by eat the cow, has she not served me a useful purpose?" Certainly; and yet the chemist to-day could take that hay, and transform the cellulose in it, which is only another form of starch, into sugar even better than the cow can. Of course if it were a question of either eating the haystack or eating the cow, we would be compelled to eat the cow. But in most instances there is no such necessity that compels people to eat flesh.

### The Strength Delusion

One reason people eat meat is because they think it is strengthening. Whence comes this universal notion that there is something especially strengthening in a meat diet?—It springs from exactly the same source as the old alcohol delusion. Generation after generation people believed that alcohol gave strength. While I was a student in Bellevue Hospital, at the end of almost every lecture on how to treat pneumonia, tuberculosis, and other fevers, the professor would advise giving a big dose of brandy. To-day no medical instructor on the face of the earth would have courage to stand up before an intelligent class of medical students and give such advice. He would run the chance of being hooted out of the class room. For science since that time has shown conclusively that alcohol is a poison, a depressant, and that its stimulating effect is simply a delusion. Several years ago the editor of the *Journal of the American Medical Association*, which is the official medical publication for more than fifty thousand American doctors, wrote that it was time for physicians to recognize that there is nothing especially strengthening in a meat diet; that bread and butter come nearer being an ideal food. And the most searching scientific investigations amply sustain these conclusions.

On this point Gautier says, "Like the opium-smoker, the individual who accustoms himself to meat, feels that he misses

it when he does not take the usual excess." I have often had patients tell me, "Doctor, I felt weak immediately after giving up meat, and I went into town and had a good beefsteak supper, and somehow I felt stronger."

What is it that makes a man *feel* stronger when he eats meat than if he had eaten bread or any other substantial food? We now know it is the waste products that are in the meat; it is the ashes. Beef tea, which does not contain a particle of nourishment, can make a man feel the same exhilaration as if he had taken brandy. It is the same delusion. It is the drug effect of the waste products. The actual food that is in meat is no more stimulating than so much bread. It is the harmful effect that is in meat that the man misses when he gives it up; for like morphine, it is the part that acts on his nerves.

(*Concluded in May*)

# The Mouth as a Factor in Disease

BY CHARLES HENRY HAYTON, B. A., M. D.

OF all the cavities entering the human body the mouth is the most important of all. Into it all the food and drink enter that go to supply the body with necessary material to produce heat, growth, and repair. It contains the two rows of teeth between which the food should be thoroughly masticated, a process essential for good digestion. The salivary glands empty their secretions through ducts into the mouth for moisture and to mix with the food as the first stage of digestion. The tongue with its delicate taste buds and nerve fibres occupies the cavity of the mouth and assists greatly in passing the bolus of food into the œsophagus.

At the back of the mouth stand the two tonsils to guard against the passage of any bacteria into the oral pharynx. How essential, then, that this important cavity, containing so many necessary factors in the every-day life of the individual, should be given a due share of care and attention.

### The Food.

The food entering the mouth should be plain, wholesome, and non-irritating. It should be thoroughly cooked, and eaten while yet warm, for it is a fact overlooked by a great many people that by the cooking of foods one guards against the introduction of further bacteria among the already existing multitude in the mouth. The exposure of the foods to such high temperature kills the bacteria. It is very necessary for those travelling in such countries as India and China to refrain from eating anything but what has been subjected to heat. Fruit and green vegetables eaten uncooked always expose the eater to the risk of the many parasitic and infectious diseases. Who has not been tempted to purchase for immediate consumption some of the beautiful plums and grapes exposed for sale in the many shops and stores? But who knows through how many infected and unclean hands these luscious fruits have passed before they find their way into the purchaser's bag. They should be carefully and thoroughly cleansed or washed before being placed in the mouth. Remember that eternal vigilance is the price of good health as of liberty.

### The Teeth.

Nature supplies us with but one permanent set of teeth, and she has made them of as hard material as possible, intending that they should last us through life. They are placed in the mouth for a definite purpose. They begin the important work of digestion by masticating the food, thus preparing it for the churning process of the stomach. Remember that the stomach has no teeth. If the food is

not masticated in the mouth it passes through the intestines as it is swallowed. One cannot enjoy the best of health without teeth. Many symptoms of indigestion are caused by a lack of teeth. No suppurative stumps of teeth should be allowed to remain in the mouth. The constant swallowing of the diseased materials from the stumps is a potent factor in many of the constitutional diseases. Rheumatoid arthritis is well known to be caused by toxic material from this source. If one lacks teeth, or they are undergoing decay, a dentist should be consulted, and the teeth put right. Money spent upon the teeth is not wasted. Sound teeth are most essential for good health.

### The Tonsils.

These two small bodies placed on either side of the posterior outlet of the mouth cause great trouble when they become diseased. Tonsillitis is a common complaint especially among young people. The tonsils become swollen because of the constant attacks of bacteria. These find their way into the crypts of the tonsils and thence into the circulation. A great many infectious diseases are derived from this source. Rheumatic fever, with its serious heart complications, has its origin through this means. Measles, scarlet fever, whooping cough, are also believed to affect the system through the tonsils. After repeated attacks of tonsillitis the tonsils become permanently enlarged and then should be removed. If parents were alive to the grave results following a simple case of tonsillitis, they would guard against it by teaching their children to keep their mouths clean. The mouth as well as the teeth should be cleansed at least three times a day.

### Cleanliness.

No cavity entering the human body is so full of bacteria as the mouth. Given the constant temperature of 98.4° Fahr., the continual moisture and the remains of each meal, and you have a perfect human incubator. Millions of germs are being constantly born and bred in an incredibly short space of time. It is these that attack the teeth, the tonsils, the tongue, and the delicate lining of the mouth. It is these and their toxins that, being constantly swallowed, are the cause of many throat and stomach troubles. They travel by way of the Eustachian tubes to the ears and eventually produce a running and permanent deafness. They find their way up the salivary ducts, causing mumps and suppurative troubles. All these diseases can be more or less avoided by keeping the mouth clean. It is a simple matter to gargle and keep the mouth clean. A teaspoonful of boric acid in a half tumbler of water is a good mouth wash. Even common household salt does good. Hydrogen peroxide half strength is excellent. The following makes up a good mouth wash and is cheap:—

| | |
|---|---|
| Sodium bicarbonate | 1 dram |
| Sodium biborate | 1 " |
| Carbolic acid | ½ " |
| Glycerine | 1 oz. |
| Water q. s. ad | 4 " |

Add to this to one quart of water, and use frequently. Remember prevention is the watchword of health to-day. Better to put a fence around the cliff than to constantly keep an ambulance at the foot.

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"NEVER bear more than one trouble at a time. Some people bear three sets of troubles, all they have had, all they have now, all they expect to have."

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CULTIVATE reverence for greatness. Teach it to your children. Cultivate perception of it—the double blessing of pattern and power.—*Phillips Brooks.*

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I CANNOT consent, as your queen, to take revenue from the sale of liquor, which destroys the souls and bodies of my subjects.—*Queen of Madagascar.*

# The Value of Cheerfulness

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

THE value of cheerfulness as a curative measure was recognized as far back as the days of Solomon. Inspiration has left on record by the pen of this sacred writer the following epitome of a great truth: "A merry heart doeth good like a medicine; but a broken spirit drieth the bones." (Prov. 17: 22) The revised version more correctly states, "A merry heart is a good medicine," and its margin brings out the additional truth, it "causeth good dealing."

This proverb has been sounding down through the ages and today is as true as when first uttered. Nothing has been more conclusively proven by science or every-day real experience. So profound an influence does the mental attitude exert over the entire body, especially digestion, that a consideration of this subject is of vital importance to each individual.

A merry heart not only is a good medicine but it will replace the need of treatment in many casas. It is true that there are scores of disorders which a merry heart will not cure, but there are none which it will not influence for good. There are neither exceptions nor bad effects.

On the other hand, "A broken spirit drieth the bones." It acts like a brake to the entire machinery of the body and it either augment diseases or predisposes to it. Discouragement from either real or imaginary causes acts identically the same. Fear and anger affect us even greater than discouragement.

Doctor Pawlow, the celebrated Russian scientist, has clearly demonstrated the evil effects of a disordered mental condition. He determined the normal gastric secretion in a dog, then placed him in a cage with a cat. In this annoying condition the dog's gastric secretion was almost stopped or at least greatly retarded, although the food given was the same.

Worry and good digestion are incompatible. You can always tell a confirmed dyspeptic by the gloominess of his countenance. On the other hand, cheerfulness and good digestion can scarcely be divorced.

Cheerfulness means more than a superficial laugh of periodic occurrence. It means to be thankful for all things and at all times, with a conscience void of offence.

Let us lay hold of these principles and increase our powers of digestion. Let none manifest a gloomy disposition. "If we are heaven-bound, how can we go as a band of mourners, groaning and complaining all the way to our Father's house?"—*Ministry of Healing, p. 251.*

If there is one thing more than another which helps to promote health of body and soul it is a spirit of cheerfulness, gratitude, and praise. If there is one thing more than another which helps to wreck our digestive and nervous systems it is a spirit of worry, complaining, or discouragement.

It is a positive duty of each one to lay aside worry and discouragement and take on cheerfulness, gratitude, and praise. Especially is this of paramount importance at meal time. Some who are trying to be health reformers worry for fear of not eating the right things or not making the right combination. "If you are in constant fear that your food will hurt you, it most assuredly will."—*Healthful Living, par. 390.* Take the words of our Saviour, "Be of good cheer," and follow the example of the early Christains, "They did eat their meat with gladness."

"Mealtime should be a season for social intercourse and refreshment. Everything

that can burden or irritate should be banished. Let trust and kindness and gratitude to the Giver of all good be cherished, and the conversation will be cheerful. A pleasant flow of thought will uplift without wearing."—*Education, p. 206.*

"Talk happiness. The world is sad enough without your woes. . . . Talk health. The dreary, never-changing tail of mortal maladies is worn and stale. You can not charm or interest or please by harping on that minor chord, disease."

Some have discovered the effects of the mind upon the body and have built up creeds upon the principle. Christian Science is a good example. Because of the benefits derived from the spirit of good cheer, thousands are flocking into its ranks. Let us recognize the principle and give thanks and praise to the Creator of mind and the author of cheerfulness.

"Be cheerful and pass it on."

# Simple Home Treatment of Pneumonia

BY T. J. EVANS, M. D.

THE early intelligent treatment of pneumonia will be found an important factor in the ultimate recovery from an attack of the disease. Should one be suddenly afflicted with pneumonia, it is quite essential to have some home treatment in mind that will assist the patient and yet will not interfere with any after-treatment. Pneumonia is a disease which attacks individuals of all ages and sex, the male being more subject to an attack than the female, as they are usually more subject to the inclemency of the weather. This disease is due to a definite micro-organism called the pneumococcus, which is found in the throat and mouth of many individuals, and becomes active when the vitality is lowered, as from a sudden congestion due to a chilling of the surface of the body. In order to treat the disease intelligently and successfully, it is necessary to have some knowledge of how the disease manifests itself in the system. The changes that take place in the lung tissue in lobar pneumonia are first an intense congestion, causing an enlargement of all the fine capillaries and lymphatics. Following this there is an exudation of blood into the alveoli of the lungs, completely filling the air spaces. During this stage of solidifaction the affected lobe of the lung resembles a section of the liver. The next change that takes place in the lung is the liquifacation of these secretions that have found their way into the air spaces. The colour of the lobe is now gray, and the secretions are soon absorbed or eliminated by expectoration.

During the stage of engorgement, the respiration is rapid, the pulse is slow, full and bounding, and the temperature is high, ranging from 102° to 105°. The face is congested, and the patient may be delirious. The feet and hands, as a rule, are cold, as the blood has been attracted to the congested area. The more intense the congestion, the more serious it is for the patient. The expression is one of anxiety and fear. Each breath seems to be the last one, to the patient. As soon as this condition presents itself, treatment should be instituted at once. Much valuable time may be lost in waiting for the arrival of a physician. The patient's bowels should be emptied by the use of a good cleansing enema. The patient should then be placed in a hot bath for a short time, keeping cold compresses to the head and neck. Following this, a dry blanket pack may be applied to the hips and legs in bed, accompanied by a cold compress to the head. A large cold compress should also be frequently applied to the chest. A wet blanket pack may be used to the extremities for about twenty minutes several

times during the day with excellent results, always keeping a compress to the chest, neck, and head during the treatment. This dilates the small blood-vessels of the lower extremities, thus relieving the congestion in the lungs and face. Sometimes for a severe pain in the chest a short application of heat by means of the fomentation will be of service. But prolonged applications of heat may increase the congestion. Under no consideration should the extremities be allowed to get cold.

It is not necessary to encourage feeding. Small quantities of liquid food is all that is essential to sustain the patient, for he is not likely to digest food well with such a high temperature.

Abundance of fresh air is one of the essentials in the successful treatment of this disease. The air carries away the poisonous material, and has a cooling, soothing effect upon the inflamed lung tissue. Fresh, cool or cold air, with children, is one of the most useful agents in the treatment of this disease. This treatment will not only give relief until the physician arrives, but has beeu used very successfully during the whole attack until recovery was established.

# The Medicinal Aspect of Fruit

BY H. M. LOME

FRESH fruit is made up of water, protein, fat, carbohydrates, cellulose, mineral matter, and the oils that give it its characteristic odour and flavour. The medicinal elements are found in the water, carbohydrates, cellulose, and mineral matter. The flavouring constituents have their share in the curative properties also, by making the fruit grateful to the palate, and so desired by the healthy and the invalid alike. Some of them are so subtle and ethereal that they have defied the chemist to isolate them. But, curiously enough, they have been made by synthesis from that malodorous substance, coal-tar. The juice of fruit consists of distilled water impregnated with the carbohydrates and other constituents.

One-half to three-quarters of the carbohydrates consist of fruit-sugar, or levulose. Some fruits, including the apple, apricot, and pineapple, also have cane-sugar. Fruit-sugar is capable of passing into the blood without preparation on the part of the digestive organs. On the other hand, cane-sugar calls for work by one of the intestinal juices. Fruits rich in levulose are good for dyspeptic and diabetic patients. The carbohydrates, in addition to the sugars, include gums that on boiling yield jelly, owing to the presence of a substance known as pectose. On being digested, the jellies are turned into a form of sugar called pentose, that is said to have emollient qualities of a high order. Apart from their medicinal qualities, the carbohydrates are practically the nutritious elements of fruits, the protein and fat forming but a very small portion of their make-up.

While the amount of mineral matter found in fruits is small, something like five-tenths per cent, it has much to do with the curative properties of the fruit. In the main, such matter consists of potash, iron, or phosphorus united with tartaric, citric, or malic acid—organised salts capable of being assimilated by the human system. These salts when taken into the body are converted into carbonates, and so help the blood to become more alkaline. When the blood has too much acid in it, maladies of several kinds are pretty sure to follow. Fruit salts restore the balance in the vital fluid, as it were.

The absence of earthy salts in fruits is noteworthy. Such salts have a bad effect

on sufferers from certain diseases, including some forms of tumor and atheroma, or degeneration of the inner coatings of the arteries. Many physicians therefore prescribe the free use of fruit in place of cereals, because the latter are rich in the objectionable salts.

Citric acid, more than its fellow acids already named, occurs in the majority of fruits. As fruits ripen, their acids diminish with the increase in sugar. Ripening is therefore a sweetening process. A few fruits, such as the apricot, become sourer after cooking, because of chemical changes brought about by the heat. It is usually better to eat raw fruit, because it has curative qualities which the pot or pan may possibly destroy. Jams, jellies, and stewed fruits are appetising and wholesome, but fruits taken for medical purposes are better used as nature prepared them. Unripe fruits cause intestinal irritation by reason of their excess of acid.

Prof. Arthur Lonsdale, of London, spoke of fruits as "a globular framework of fine, easily digested, and pharmaceutically valuable cellulose, saturated with distilled water containing fruit-sugar." The distinguished scientist is quoted because of his reference to the cellulose, his opinion being that of practically all members of the medical profession who have investigated the curative properties of fruits. This cellulose appears to have a direct stimulating action on the bowels. Those persons, therefore, who suffer from constipation usually find ready relief by making fruit a prominent part of their daily dietary. Unlike artificial cathartics, the use of fruit does not entail subsequent constipation, while the action induced by it is of a gentle and bland nature. Where there is much griping or other violent intestinal disturbances following the taking of fruit, it is a sure sign that it was either unripe or not fresh.

Citrus fruits include the orange, lemon, citron, lime, bergamot, shaddock, and grape fruit. These fruits are distinguished by the volatile oils found in their skins and flowers. From the skins flavouring essences are made, and from the flowers, perfumes. Both of these have their place in the *materia medica* also, by reason of their stimulative effects.

But it is because of the citric acid that these fruits are best known; the lemon in particular being prominent in this respect. Many are the excellent medical qualities claimed for this acid. When diluted and sipped slowly, it will increase the secretion of saliva. It seems to be beneficial in muscular rheumatism; its power to allay feverish symptoms is well known. In many forms of skin disease, it acts like a charm. It is a certain preventive and cure for scurvy. Since it became a portion of the daily diet of seamen by law, scurvy, the dread and scourge of seagoers of old days, has practically disappeared. The writer remembers a sailors' song of English origin that was called "The Cantankerous Captain," two lines of which ran thus;—

"He puts 'em on a double watch; cuts 'baccy, that's a fact;
But he's got to pass the lime-juice out, according to the Act."

The allusion is to the stringent British laws, or act of Parliament on the subject. Citric acid is also often used in medicine in combination with iron, magnesium, lithium, quinine, etc., "citrates" being the result.

Fruit acids are germicidal. The harbouring place for many of the most common and dangerous microbes that afflict humanity is the intestinal tract. The use of the citrus fruits is somewhat of a protection against maladies that these microbes cause. As a mouth wash, lemon juice has some virtue. A very dilute solution of the acid can be used with advantage for tired eyes and inflamed

eyelids. Scorbutic affections yield to its use. Lemonade is too well known as a refreshing drink to need mention. And as a drink for feverish invalids, it is unsurpassed. It is also good for diabetic patients. Travellers escape tropical fevers by the liberal use of drinks of which lemon or lime juice is the basis.

Apples, pears, and quinces are all members of a botanical family that includes the roses, and is scientifically known as *Pyrus malus*. Ripe apples eaten raw and thoroughly masticated, are sometimes excellent for digestive troubles. In Devonshire, England, there is an apple-cure establishment for dyspeptics that is said to have effected some remarkable recoveries by placing the patients on an exclusive diet of the fruit. Skin and allied diseases yield to a treatment that includes apples as one of the chief articles of diet. Together with the pear, the apple is a mild aperient. Fresh apple-juice, taken before breakfast, is excellent for constipation. The quince is used only in the form of preserves. Owing to its excessive astringency when raw, it is sometimes employed to stop hemorrhage by placing slices of it on the wounds.

Unfermented grape-juice acts as a mild laxative and diuretic, and diminishes the acidity of the urine. It is therefore good for gout, rheumatism, obesity, scorbutic afflictions, kidney troubles, and digestive disorders, including those having their origin in the liver. And according to Robert Hutchinson, M. D., the famous English doctor, grapes are of the utmost value in the case of chronic bronchial catarrh.

Rhubarb, owing to the large proportion of oxalic acid that it contains, is a capital antiscorbutic. In minor forms of scurvy, it acts as a curative. The young plant when stewed and eaten at breakfast, is laxative.

Bananas contain more starch than any other known fruit. For this reason, while they are very nutritious, they are not laxative. They may be used with advantage by those who suffer from looseness of the bowels.

The fig is rich in cellulose. On account of this quality it possesses laxative powers of a high order. Confirmed cases of constipation can be cured by the use of *sound*, dried figs. Many figs offered to the public are mouldy, partly rotten, or maggot-eaten, and unfit for consumption. They should be plump, free from a suggestion of mould or blight, and of a fragrant odour.

Peaches, apricots, nectarines, and all the stone-fruits, contain much cellulose, and usually have marked laxative effects. When fully ripe, they have a tonic quality that "picks up" those of delicate appetite. It is said by some investigators that this bracing effect is due to an infinitesimal quantity of prussic acid, which gives the flavour to the kernel of the fruit, and escapes into the pulp. There are many poisons of the deadliest descriptions that, used in microscopic quantities, are of therapeutic value, and it would seem that that of the stone-fruits is one of them.

The plums have medicinal qualities akin to those of the fruits just named. The prune is especially well provided with cellulose, and hence its well-known effects on the organs of excretion.

Iron salts enter largely into the composition of the strawberry, and make that fruit particularly acceptable to those who are nervous and run down. The acid of this fruit is also said to be of benefit to sufferers from kidney and bladder troubles. Because of the absence of cane-sugar in the strawberry, it also can be safely used by the diabetic.

The pineapple contains a substance that assists in the digestion of food. The pineapple is not suited to diabetics, owing to its containing cane-sugar. But in the case of others, it is of value for its digestive and antiscorbutic properties and for its stimulative action on the bladder. Also, if eaten in liberal quantities on an otherwise empty stomach, it will overcome ordinary constipation.

Dates are mildly stimulating. Tamarinds are markedly laxative. In the British army in the tropics, this fruit, pre-

served, is served daily for the purpose of insuring regular excretory action. Melons and pumpkins contain a comparatively large proportion of phosphoric acid.

Blackberries, raspberries, huckleberries, and other similar kinds, are rich in acids and cellulose, and act as blood purifiers and laxatives. The cellulose takes the form of the pithy grains that are embedded in the pulp. These grains cannot, be digested. When one eats the fruit, the intestines make a special effort to rid themselves of them; hence the laxative action that usually accompanies the use of berries.

The peel, or rind, of the fruit is usually tasteless or bitter or even poisonous. Therefore it is well to peel your fruit before you eat it. When the peel is eaten, care should be taken that it is thoroughly washed. Insects lay their eggs, and mould grows, on the outside skin of the majority of fruits, to say nothing of the dust and dirt that gather thereon. The safest and certainly the cleanest plan is to remove the peel.

# Patent Medicines and Intemperance

BY G. H. HEALD, M. D.

A PHYSICIAN was called to see a clergyman who had recently been acting somewhat strangely. After a careful examination he looked very serious, took one of the sons aside, and said to him: "I am sorry to tell you that your father is intoxicated."

"Intoxicated?" said the son. "Impossible! Father never drinks."

A little inquiry revealed the fact that there was in a closet quite a pile of empty Peruna bottles, giving evidence that this clergyman, possibly without realizing the fact, had become a regular Peruna drunkard. Being a conscientious and self-respecting man, when the situation was explained to him after he had become sober, he readily gave up the pernicious practice which he had unwittingly begun.

The manufacture of so-called patent medicines with a purpose of escaping the liquor license and finding sale perhaps in prohibition territory, grew to such proportions that the United States Government had to decree that patent medicines containing a large proportion of alcohol and a little medicament must be sold only in places having a retail liquor license. This of course caused considerable skirmishing among the manufacturers of such products. The proprietors of Peruna who did not want to put their product alongside of such palpable boozes as whisky, rum, and beer, changed their formula by the addition of a laxative drug sufficient to enable them to still register the stuff as a medicine to be sold by chemists.

Soon the persons who had been accustomed to using Peruna as their favoured booze began to experience certain after effects which were not at all pleasing, and forthwith the sales of Peruna dropped almost to a minimum As a result, the Peruna manufacturers have decided recently to resurrect the old formula under a new name, so that the old patrons of Peruna can again obtain their favoured booze, but they must obtain it now in a saloon.

But Peruna is only one of a large number of substances sailing under the name of medicine which are nothing more or less than cheap liquors, with a little medicament in the form of bitter herbs or some mineral salts. What really sells these preparations is the alcohol. A large number of the sarsaparillas, the bitters, the tonics, the "safe" remedies, many of the proprietary foods like liquid peptanoids, hæmapeptone, liquid peptone, predigested beef, etc., are simply forms of liquor, and there are many people who can honestly write a testimonial like the following:

"I can cheerfully testify to the efficacy of Dean's Celery Cordial, for I have been using it constantly during the last ten years, and I find it impossible to get along without it."

Such a testimonial one could write regarding whisky, or any of the other alcoholic drinks. These patent medicines create an appetite for themselves, and one is very apt to continue using the so-called medicine, or sooner or later to switch off on some form of regular intoxicating alcoholic drink.

# The House We Live In

## Organs With an Internal Secretion

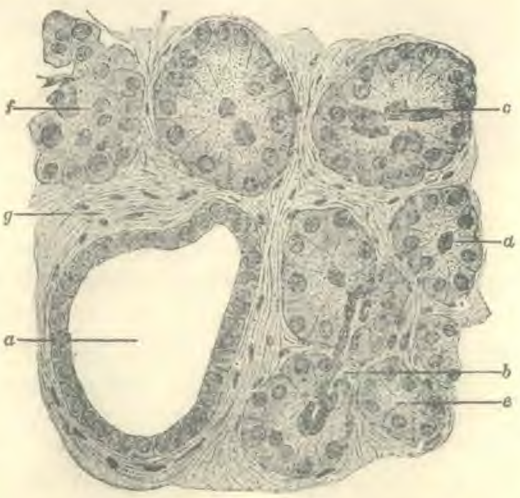
THESE are a group of organs having the nature of glands. By glands we mean that the cell structure of the organ is arranged in such a way that they are capable of secreting a juice. These organs are sometimes called ductless glands and are spoken of as forming an internal secretion. They are ductless because they have no duct or known channel by which their manufactured secretions are delivered to the blood. We say they form an internal secretion because they deliver their manufactured products to the blood in such a way that we are unable to obtain secretion and study it in a pure form. As an example the juice or secretion of the salivary glands, which is called saliva or spittle, is the product of a gland having a duct out of which is poured an external secretion. On the other hand adrenaline is the internal secretion of the suprarenal gland which has no visible duct. The work of the former is done more in the open, while the work of the latter is done in secret. In order to obtain an internal secretion of one of the ductless glands it is necessary to chop the gland up and squeeze the juice out, then it is not in a pure form as it is mixed with the ingredients of the lymph and and blood. It is only in the last few years that medical science has contributed very much on the work of these organs. Although these few years have added much to our knowledge of these glands, still it is but a beginning. Some organs not only have a duct with an external secretion but also are classed among those forming an internal secretion. The liver and pancreas are good examples of this. The work of the latter we have spoken of in other articles. The external secretion of the pancreatic juice is carried to the intestines by way of the pancreatic duct and helps in the digestive process of our food. We show in the article on "Diabetes" in this number of HERALD how the internal secretion of the pancreas plays a very important part in maintaining the sugar balance of the body.

Those organs that are ductless glands, pure and simple, are the spleen, thymus, thyroid, parathyroid, suprarenal, pituitary, pineal, coccygeal, and carotid glands. Because of the obscure way in which these glands deliver their manufactured product to the system, we cannot study their secretion like we would study the gastric juice. So we have to resort to other methods. We study them by removing the gland, and watching the effect. We note what effect disease of these organs has upon the metabolic (building up and tearing down) processes of the body. The transplantation of one of these glands after its removal and the effects observed. The injection of the extracts of the glands in question into animals with carefully recorded results.

It is not our aim to take up in detail the make up of these different organs or glands as it would be uninteresting and unprofitable. But we would like our readers to keep in mind that these glands, although quite small and insignificant compared to some of the other organs of the body, play a very important part in maintaining an equal poise in very important processes that take place in the body, and that disturbance in any one of these glands throws the whole system out of balance with resulting symptoms well

known to the student of medicine. We will be content with mentioning some of the more important features of two of these glands containing an internal secretion and with locating the rest.

The spleen is situated to the left of the stomach, between it and the diaphragm, the important muscle of respiration. It is the largest of the so-called ductless glands. It is very irregular in shape being filled with depressions where the other surrounding organs come into contact with it. In the adult the organ is about five inches in length, three inches in breadth, and an inch or an inch and a half in thickness, and weighs about 7 ounces. The spleen being very vascular changes in size materially when there are disturbances in the circulation. Also in some chronic diseases where there is an unbalanced circulation the spleen becomes enlarged. Chronic malaria produces an enormous sized spleen. The organ has a capsule surrounding it and the interior tissue is made up of two kinds, one serves as a frame work of the organ, while the other is the tissue that does the work of the organ. The blood vessels leave or enter a portion of the organ called the hilum.




Portion of pancreas (Bohm and Davidoff). *a*, large duct: *b*, beginning duct. *c*, *d*, *e*, secreting alveoli; *g*, sustentacular connective tissue.

The spleen has several important uses or functions. It is a factor in the formation and destruction of the solid constituents of the blood, the white and red blood cells. It acts as a kind of vascular reservoir for the Portal circulation which is shown by its enlargement during digestion. It also produces an internal secretion which actuates or stimulates the formation of the intestinal juice.

The pancreas is constructed similarly to the salivary glands. It is long and irregularly prismatic in shape with a very soft consistency. It has a head, neck, body, and tail in terms of the anatomist. It is located transversely across the back part of the abdomen. Its head comes in contact with a portion of the duodenum and its tail touches the spleen. This can be seen by referring to the illustration. The body of it is in close relation with the stomach. It is five to six inches long, an inch and a half broad and an inch and a half thick. It weighs from two to three and a half ounces. This organ is not enclosed in a distinct capsule. The interior of the organ contains very little supporting tissue, but mostly that tissue that carries on the work of the organ. This is what gives the organ its soft consistency. The organ is delivered into lobules. Each lobule consists of one of the ramifications of the main duct. A smaller division of the tissue is the alveolus which is lined with cells that have power of secretion. The function of the pancreas we have considered in other articles. Its help in the digestion of our food and its serving as a balance in

sugar metabolism are its most important functions.

The pitnitary and pineal glands are located at the back of the brain. The thyroid gland is situated in front and on the sides of the neck. The para thyroids are in close relation with the thyroid. The thymus is also in the front part of the neck and extends down under the sternum to the pericardium, the covering of the heart. The carotid glands lie at the point where the carotid artery divides into two parts. The suprarenal gland sets on the upper or superior pole of the kindney like a cap. The coccygeal gland is located at the tip of the coccyx on the lower end of the spinal column.

# Bad Odours and Health

IT has been supposed by some that one of the reasons for the existence of an olfactory sense is that its possessor may be warned thereby of an impending danger to health. Diphtheria and typhoid fever, for instance, are quite commonly attributed to the inhalation of some evil smell from a bad drain, and it is almost impossible to convince those who hold to this belief that comparatively few noxious diseases are contracted in that manner. But after all, the "nymphs that reign o'er sewers and sinks" do not exercise such a malign influence as many people fondly imagine. Unpleasant as bad odours are, especially those connected with certain trades aud occupations, there is no real evidence to show that the workers who are engaged therein suffer from bad health in any special degree. Overpowering as the stench may be in the vicinity of soap or linoleum works, sewers, or in places where gut-scraping is in operation, those who are employed in the actual work enjoy as much immunity from disease as any other class of workers. They do not even appear to get septic tonsillitis which is often said to result from inhaling some foul emanation. The truth is that bad ventilation appears to be more harmful than evil odours themselves, so that those whose work does not lie in a bed of roses, in the olfactory sense, may take courage and breathe freely.—*Medical Press.*

# How Americans Spend Their Money

A MORE truthful heading for this paragraph would be, "How Americans Waste Their Money." The following data were displayed at an exhibition which was held in connection with the Fifteenth International Congress of Hygiene and Demography, at Washington, D. C., U. S. A., last September.

| | |
|---|---|
| Immorality, Social Diseases | $3,000,000,000 |
| Intoxicating Liquors | 2,000,000,000 |
| Tobacco | 1,200,000,000 |
| Jewellery and Plate | 800,000,000 |
| Automobiles | 500,000,000 |
| Church Work at Home | 250,000,000 |
| Confectionery | 200,000,000 |
| Soft Drinks | 120,000,000 |
| Tea and Coffee | 100,000,000 |
| Millinery | 90,000,000 |
| Patent Medicines | 80,000,000 |
| Chewing Gum | 13,000,000 |
| Foreign Missions | 12,000,000 |

We wonder whether any heathen country or even savage tribe could produce any more portentous figures than these. Perhaps we might explain that what we call temperance drinks in this country are usually known as "soft drinks" across the water. Fortunately the chewing gum evil has not seriously penetrated our country, and we trust it never will. Otherwise we fear that we should be able to produce much the same figures in proportion to our population.—*Good Health, London.*

"MAN is the only animal who does not know how to live."


# Dairy Products

GEORGE E. CORNFORTH

### Artificially Prepared Buttermilk

BUTTERMILK has long been recognized as a wholesome food, possessing health-giving properties. But buttermilk is deprived of the fat of the milk, and from the fact that the milk may have been old and germ laden before the butter was made, the buttermilk may not be of the cleanest or most wholesome nature. By making use of the germ which causes the souring of milk, an artificially prepared buttermilk may be prepared which is free from harmful germs, and which contains all the food constituents of the milk. There are are various brands of buttermilk tablets on the market for the preparation of this milk. They may be obtained at a chemists shop. The process of making the milk is as follows:—

Pulverize one tablet, and dissolve it in a little cold water. Sterilize one quart of milk, and *cool it until lukewarm.* Add a few grains of salt and the dissolved tablet. Stir well. Set in a warm place where the temperature would be right for setting yeast bread to rise. Keep it at that temperature for forty-eight hours. At the end of that time, possibly it might be a little longer or a little shorter, it will be thickened. Set it in the refrigerator. When cold, whip it with a batter whip till it is creamy. When more is required, it is not necessary to use another tablet. One-fourth cup of this prepared milk is sufficient to make one gallon. Proceed as in making the first quart, using the one fourth cup of prepared milk in place of the tablet. It will probably not be necessary to allow it to stand much more than twelve hours when made in this way. The new lot should not be prepared from the old milk more than three or four times because other germs are sure to get in, which may cause some trouble in properly preparing it. It should not be allowed to stand too long in a warm place. If it does, the whey may separate from the curd, and the result will be a thin, watery milk instead of a thick, creamy one. Just as soon as the milk thickens, it should be put into a cold place. This buttermilk may be prepared from skim-milk, but it will not be so thick and rich as when prepared from whole milk. Some recipes call for the addition of water to the milk when the tablet is added. This makes a thiner and less rich milk. This milk may be prepared in bowls instead of in one large dish, and put into the refrigerator after the milk thickens. When cold it may be eaten with a spoon. A bowl of this with zwieback would make a wholesome and nutritious lunch. Or it may be put into small molds or custard cups to thicken. After it has become solid, set in the refrigerator to become very cold. The molds may then be turned out and served with cake or crackers. A little sugar is usually eaten on it when it is served in this way. Cream and sugar may be used.

In this sour-milk preparation the casein of the milk is in the form of fine, flaky curds, which are very easily acted upon by the digestive fluids. It can not form large, hard curds in the stomach.

### Cottage Cheese

The best of cottage cheese may be made from milk prepared according to the above directions. The soured milk should be prepared in a shallow pan. With a knife cut the milk into two inch cubes. Set the pan in a moderate oven, and heat the milk to just a little above lukewarm. Heating it too hot will make the cheese tough, and will get less cheese. Do not stir the milk. This also will lessen the quantity of cheese. When the whey has separated, pour the milk into a cheese-cloth bag, and hang up to drain. Remove from the bag and season with salt and cream. The cheese may be formed into balls or cakes if desired.

Cottage cheese may be made from ordinary sour milk by the same process. Soured skim-milk may be used; but the cheese made from skim-milk is not so pleasant nor so nutritions as that made from whole milk.

*(Concluded in May.)*

## RECIPES

### Chocolate Cake

CREAM one tablespoonful of butter with one cupful of sugar, and add the beaten yolk of one egg. Add one-half cupful of milk and three-quarters of a cupful of sifted flour. Add one-half teaspoonful of soda dissolved in a little water and then two squares of melted chocolate, one teaspoonful of vanilla and another half cupful of milk; finally add three-quarters of a cupful of flour and a half teaspoonful of salt. Beat together thoroughly. The mixture will be thinner than the average batter. Bake in a moderate oven. Frost while warm with a frosting made as follows: Cook one cupful of brown sugar with one-third of a cupful of water until it will thread. It will take longer than if white sugar is used. Pour slowly over the beaten white of the egg. Flavour with vanilla and beat until of the right consistency to spread. The success of this inexpensive cake depends upon the method of mixing.

### Love Loaves

Cream half a cupful of butter with two cupfuls of sugar and add one cupful of sweet milk, alternately with two cupfuls of flour mixed and sifted with two teaspoonfuls of baking powder. Fold in the well-beaten whites of four eggs and flavor with vanilla. Bake in a square pan. When cool cut into hearts, using a heart cutter, cover with a chocolate icing over which sprinkle coconut. For the icing, place one cupful and a half of sugar with three tablespoonfuls of cream and a third of a cake of chocolate in a saucepan and boil until it will rope when poured from the spoon. Pour this over the beaten whites of two eggs. Beat until it thickens.

### Sweet Potato Toast

To two cupfuls of hot mashed sweet potatoes add four tablespoonfuls of sugar, two teaspoonfuls of butter, one and a half cupfuls of milk, half a teaspoonful of salt and two eggs. Mix into a smooth paste. Cut stale bread into very thin slices and spread with the paste; lay close together in a well buttered pan; sprinkle with sugar and cinnamon and bake in a hot oven until they begin to turn a golden brown. Serve hot.

### Apple and Banana Compote

Fill a baking dish with alternate layers of sliced tart apples and sliced bananas, sprinkling each layer with a little sugar. See that bananas form the top layer. Brush over with melted butter, sprinkle with sugar, cover closely and bake in a slow oven an hour and a half. Remove the cover and brown.

### Nut Croquettes

Mix together one cupful of very finely chopped nuts and one cupful of bread crumbs. Bind together with a beaten egg. Form into small balls and encase them in seasoned mashed potato; roll in egg and crumbs and fry in deep fat.

*—Good Housekeeping.*

# Mother and Child

## Training the Child's Appetite

PARENTS know that their child is not capable of wisely deciding what is best for him to wear or what his amusements shall be, but, when it comes to deciding the most important matter of all, what shall go into his stomach, they allow him free rein. Anything and everything he wants he gets, and not a firm word of denial is spoken.

Then Mother takes care of him through the long night when he is sick, and everybody wonders what makes the baby have colic, and complains because they "couldn't get a wink of sleep." And Grandmother says: "Why, every baby has colic. That is one of the things you have to put up with when there is a baby in the family."

A very little baby that has never had anything but milk has been unable to make comparisons in food, without which experience taste cannot be formed. This fact was amusingly illustrated when my baby was very young and I had occasion to give him castor oil. My mother thought it a shame to give it to the child without some peppermint or something else to "take away the taste."

"Why," I laughed, "he has not formed any taste yet. What is castor oil to him? Just something strange to put into his mouth; I'll wager that he will not mind it a bit. Just watch his face."

And the little fellow actually smacked his lips and looked up as if he wanted more of the horrid stuff! If we had nothing but such tasting things as castor oil to eat, that baby would soon have enjoyed its taste and called it good! And perhaps he might have gone to college declaring that he was accustomed to having castor oil for his breakfast and simply could not eat anything else.

A child's appetite is just what his parents make it. If the father and mother are wise, members of their family learn to eat "everything." If the mother caters to some preference, her son and daughter soon begin to think that they must have that article of food and no other. The children accustomed to eating whatever is set before them are welcomed everywhere; they are the joy of a hostess. But those brought up under the opposite conditions are the despair of everybody. They cannot eat this, and cannot abide that, and the other thing "makes them sick." Truth to tell, they make most people "sick," poor things!

When a child's stomach has been accustomed to a milk diet only, it will not take food of varying degrees of indigestibility without rebellion. Many a grandmother objects to such a statement, and will tell you immediately:

"I brought up eight children and every one of them had everything they wanted from the table from the time they came to it. Tea? Certainly; I gave them tea and coffee—all they wanted. And everything else besides, and they lived through it!"

Yes, thousands lived through such treatment, but it was in spite of, not because of, such ignorant methods. No one ever tells of the awful nights or the excruciating stomach-aches they caused.

There are few children that are underfed compared with the thousands that have so much to eat that it makes them poor to carry it around. Three times a day they have their stomachs filled "chuck

full" and then we wonder why they do not get along better in school, and why they are so peevish all the time. "Some member of the family is sick all the time," one mother after another complains. And a person with a grain of common sense does not wonder a bit when he sees how their children eat.

The tendency is to overeat rather than not eat enough. The body requires only a certain amount for physical growth and development, and to enable it to perform its daily functions. If more food is taken than is required it is apt to clog the system, bring about organic disorders, and sap the nervous strength of the individual. Intellectual attainment is difficult or altogether impossible to one who has not the will power to deny himself too much food, or the rich and stimulating foods we are apt to find upon our tables to-day. It is a physical impossibility for the brain to work while the stomach and other digestive organs are being overtaxed. Keepers of very fine animals show their recognition of these principles in feeding them at regular intervals and in moderation, a practice that has proved conducive to their best health. If men can do such things for monkeys and bears, cannot women take as intelligent care of their children? Are not these children of ours of more value than the highest-priced animals?

—*Bertha Bellows Streeter.*

## A MOTHER'S EXPERIENCE

WHEREVER possible, however, I had another and still better method of bringing home the naughtiness of any particular misdeed. I made the punishment fit the crime. For instance, if Edgar persistently dried half washed hands on a clean towel I made him wash that towel out himself, and wash it clean. If Anita chose to scramble over fences and tear her clothes I made her mend them herself. If either of the children interrupted conversation, their father and I made a point of interrupting the interrupter and pointing out why we did so—until the lesson was well learned.

It sometimes seems to me that if I had used a little less conscience and a little more head I would have avoided so many needless mistakes in my training of my children. I was so anxious, so painstaking and so foolish. For instance, it was my earnest desire that my children should be truthful and straightforward. I wanted them to feel that a lie was a lie, whether a mere evasion, an unworthy shuffling, or a lie of the kind miscalled "white." I wanted them to feel that their word was binding: that if they promised a thing that promise was to be fulfilled in the spirit as well as in the letter. I wanted to be absolutely sure of their obedience to my behests.

Unfortunately I went quite the wrong way about trying to instill these principles into my dear little youngsters. And the mistake I made was in watching them too closely; in guarding too anxiously against the possibility of their deceiving me. And this, as I can now well see, simply put things into their heads.

For instance, one of our spaniels was the possessor of six tiny puppies. My husband wished to keep the little things from being handled, so I called Edgar, Anita and Maisie and told them that I did not wish them to go to the stable until I gave them permission. I did not tell them why, because I believed that children should learn unquestioning obedience. And I added: "If any of you disobey me I shall be very angry." Now that was a false start. I should not have even suggested the possiblity of their disobeying me. And I made matters worse by asking each night: "Did any of you go near the stable to-day? Now tell Mother the truth!"

Could anything have been worse? I not only showed them I half expected

them to disobey me, but also felt it extremely probable that they might lie to me as well! And, as might have been expected, I discovered one day that Edgar had disobeyed me and lied about it, while Anita had behaved like a little sneak and "told."

This matter of "telling tales" was but another outcome of my ridiculous method. For in my very anxiety to guard them with the utmost care I believed it part of my duty to find out whether or not I had been obeyed. And the process of finding out usually meant the more or less direct questioning either of one or of the other. In cases where both were implicated the one who "confessed" was allowed to go without punishment. In other words I put a premium on sneaking and telling tales.

Different children of course must be dealt with differently: in one case implicit trust may be the only safe method to follow; in another a certain amount of espionage may be absolutely necessary. But the mistake I made was in mixing the two methods too obviously. I told my children I trusted them, and immediately afterward let them see that I really did nothing of the sort. I placed them on their honour, and then made it perfectly apparent that I did not think their honour amounted to much. I quite overlooked the fact that diplomacy is a necessary attribute to successful parenthood.

—*Ladies' Home Journal.*

## "SMILE AND SPLAIN"

"How in the world do you get your children to act so quickly?" inquired a friend who had just dropped in, as she watched the busy, bustling youngsters of her neighbour as they were setting the table for their mother. "My children just 'dream' over everything I give them to do; it makes me fairly tear my hair with desperation sometimes."

"Yes, isn't it terrible the way a child can dawdle? Mine used to be fairly maddening." The mother smiled reminiscently. "I think I made them numb with my continual 'Hurry!' 'Now hurry up!' 'Oh, don't be so slow!' One morning that littlest one looked up plaintively from her shoe-buttoning and said, 'Mother, when I get a little girl I am not going to tell her "Hurry! Hurry! Hurry!" all the time.'

"Of course I laughed, and, still laughing, asked: 'When you get two little girls and two little boys, and have to get them all up and dressed in the morning, and put up their school luncheons, and get their breakfasts ready so they will be in time for school, and then wash the dishes and get to the dressmaker's at ten o'clock, what will you do if those boys and girls just won't help a bit?'

"To my surprise she began to button as if her life depended on it. 'Why, Mother,' she answered, 'I would just smile and 'splain.'

"That gave me an idea. Instead of telling them to hurry until my words were absolutely meaningless I have smiled and 'splained' and given them the feeling of being busy and having lots to do. It works pretty well and we are all much happier. 'Smile and 'splain' would be a good motto in any home."—*Selected.*


## A CAUSE FOR DEFECTIVE TEETH

THE *Dental Review* asks the question: "Why is it that the older children in a family very often have the best teeth, especially in those cases where the mother gradually loses her teeth without having substitutes inserted?"

The explanation is something like this: The mother, having lost some of her teeth, is not able to masticate her food so well. Her nutrition suffers. Children born and nursed under these circumstances receive insufficient nourishment, especially of the bone-making material; and the teeth are non-resistant and especially liable to the inroads of germs. Because of malnutrition, the lack of vitality shown in the impairment of the temporary teeth is still further manifested in the defects of the permanent teeth. A vicious circle has been formed; poor teeth in the mother cause poor nutrition in the mother, then poor nutrition in the child, then poor temporary teeth in the child, resulting in further poor nutrition and then in poor permanent teeth. Can this all follow the neglect of the mother to have her teeth attended to? Dr. Hudeson says he has seen just such cases, where the older members of the family, born while the mother's teeth were good, grew up with sound teeth, while the younger members, born after the mother's mouth was defective, grew up with defective teeth. It is worth considering.

## MEDICINE IN CHINA.

DR. M. R. Edwards, the head of the Shanghai branch of the Harvard Medical School, found on investigation scarcely more than 2,000 trained native physicians and not more than 1,000 foreign physicians in the whole empire. In the above-mentioned institution a department of preventive medicine will educate native public health officials, who alone can best overcome the prejudices of the ignorant classes in time of pestilence and epidemics. A research laboratory will also be established where the diseases of the Orient will be studied by a group of men devoting their whole time to this work. It is also expected that the laboratories will offer facilities for research to men coming for independent study from other countries, and will aim in every way possible to assist in the development and advance of medical science throughout China. This new Harvard school marks a distinct advance in the facilities for obtaining a sound medical education offered to Chinese. It has, however, been foreshadowed by the Union Medical schools in Peking and Shantung in the north and by the University of Pennsylvania school in Canton and the Hong Kong University. The teaching in the new Harvard school and also that in Hong Kong University is conducted in English. The requirements for admission are a thorough knowledge of English and an elementary scientific training.

## NATURAL VERSUS NARCOTIC SLEEP

DURING natural sleep there is a natural restoration of the function of the brain cells. During the waking hours, the supply of oxygen not being quite sufficient to keep the cells at their maximum, we have the fatigue which demands sleep. During sleep while the cells are resting, restoration takes place by means of oxygen which now is not required for immediate functioning, and which can be used for repair work, as it were.

But in narcosis, produced by drugs, there is a diminution of oxidation. Even when the supply of oxygen in the lungs is ample, it does not reach the gray cells of the brain; in fact, the brain cells undergo a process analogous to drowning. As the *Therapeutic Gazette* says:—

"If we use narcotics to produce sleep, we must always bear in mind that no true sleep occurs as long as the narcosis of the cortex lasts."

Though the *Gazette* admits that a hypnotic may sometime prove beneficial in the hands of a physician when used sparingly, it continues:—

"The physician must, however, never forget that not the entire period of unconsciousness which follows the use of the hyp-

notic is true sleeping, but that at first it is rather a depression, the injurious effect of which will manifest itself when the hypnotic is used for any long period."

## TREATMENT OF SNAKE-BITE.

COLONEL R. NEIL CAMPBELL, M. B., C. B., C. I. E., I. M. S., in his annual report on medical matters in Assam writes the following note on the above subject:—

In 1911 only 14 cases of snake-bite were treated with Dr. Rogers' or Sir K. Brunton's Lance and permanganate of potash, *viz.*, 4 in the Lushai Hills, 3 in Sylhet, 2 each in the Khasi and Jaintia Hills and the Naga Hills and 1 each in Darrang, Goalpara, and Rangpur districts. Of these, 12 were males and two females and their ages varied from 14 to 50 years. In the two cases treated at Shillong in the Khasi and Jaintia Hills the snakes were identified by the Civil Surgeon as Lachesis Monticola but they were very small, six and eight inches in length, and the punctures were only skin deep. In the remaining 12 cases in which the snakes were not identified the constitutional symptoms and local effects showed that in seven the snakes were probably non-poisonous, in three slightly poisonous and in two poisonous (one deadly). Of these 14 cases treated, one died.

The treatment with incision by Rogers' Lancet and potassium permanganate applied locally, was apparently of use in some of the cases, but proved of no avail in a case supposed to be the bite of a cobra, though two ligatures were applied within three minutes and treatment with permanganate of potash begun in ten minntes according to the report.

I am of opinion that much good results from this method of treatment for snake-bite, but the reports furnished are not dependable in many cases, as various details as to time between the bite and the application of a ligature, as also between the bite and commencement of treatment depend on guess work, the snake too is frequently not killed and, when killed, not recognised.

—*Indian Medical Gazette.*

## GETTING READY FOR THE SCRAP-HEAP

SOME of the most forceful sermons on the importance of caring for the vitality when there is apparently a superabundance of life and energy, are hid away in medical books, where they are not likely to meet the eye of the ordinary reader. Dr. L. F. Bishop, an authority on diseases of the heart and circulation, some time ago published for the use of the medical profession, a small book on blood pressure, in which is given the following containing a lesson which many a young man would do well to heed: —

"I was much struck recently by a description of his own case as given by a gentleman who has achieved success in life through the able manner in which he has managed a railroad. He is suffering from circulatory failure, and says: 'I think I am like one of the old engines on my railroad,—about ready for the scrap-heap. You may be able to patch me up and keep me going for a little while, but you can not make me new again.' He said that when an engine first came out of the shop, it could do two hundred miles a day, and at the end be just as good as at the start. After a while there would be a little leak in one of the valves, and it would have to go to the shop to be repaired. Later on another valve would leak, and then there would be trouble with the fire-box. When this once began, though each time the engine came out of the shop it would appear to be all right, it would always be going back again, and at the end of a hundred miles one might always expect something to be wrong. He said further: 'I employ a master mechanic to overhaul the engines every morning, and in ths way we manage to keep them going, even though they are old; but there always comes a time when repairs do not pay, and then they are sent to the scrap-heap.'

"There is something about a piece of machinery that has borne the stress of hard usage that is very like the behaviour of the human body under the same conditions. It pays in the long run to buy new machinery, and it would certainly pay to get a new body if it were possible. A new automobile can be managed and kept running by one of little experience; but to keep an old one running requires the knowledge of an expert."

A moral at the end of a story is often odious. It reflects on the intelligence of the reader, who usually feels capable of drawing his own moral. I shall risk the odium of saying that as an automobile or an engine does not show hard usage while it is new, but if used carelessly it sooner gets to that condition where it must constantly have

(*Concluded on Page* 99)

# : In the Absence of the Doctor :

## ARTIFICIAL RESPIRATION.

THIS procedure is resorted to in cases of threatened death from absence of breathing consequent upon drowning, profound anesthetization, electric shock, or the inhalation of poisonous gases, or when for any cause there is interference with the function of beathing. Before resorting to artifical respiration care should be taken to see that nothing is present in the mouth or air passages which will obstruct the entrance of air into the lungs, such as mucous, foreign bodies, or liquids and also that all tight clothing interfering with free expansion of the chest walls is removed from the chest.

When artificial respiration is resorted to the operator should persevere with it for some time, even when no apparent spontaneous respiratory movements are excited; for resuscitation has been accomplished in seemingly hopeless cases by patient perseverance with the manipulations. When the first natural respiratory movement is detected the operator should not cease making artificial respiration, but should continue these movements in such a way as to coincide with the spontaneous breathing movements until the breathing has assumed its regular character. The temperature of the body should also be restored by friction to the surface of the body by the hands or by rough towels and hot water bottles, and warm coverings should be applied for the same object.

The patient should be placed on his back upon a firm flat surface, a cushion of clothing is placed under the shoulders, and the head should be dropped lower than the body by tilting the surface on which he is laid. The mouth being cleared of mucous or foreign substantce the tongue is drawn forward and secured to the chin by a piece of rope tied around it and the lower jaw or may be pulled out of the mouth and held by an


## A GOOD VEGETARIAN COOK BOOK.

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The work contains 420 pages, is well bound in cloth, and the price is Rs. 3-8. Postage extra.

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assistant. The operator, standing at the patient's head, grasps the arms at the elbows and carries them first outward and then upward until the hands are brought together above the head; this represents inspiration; they should be kept in this position for two seconds, after which time they are brought slowly back to the sides of the thorax and pressed against it for two seconds; this represents expiration. These movements are repeated fifteen times in a minute until the breathing is restored or it is evident that the case is a hopeless one.

Mouth to mouth inflation is a good method of artificial respiration in case of emergency especially in very young children. The operator draws the tongue forward, closes the nostrils, and applies his mouth directly to the mouth of the patient and by a deep expiratory effort endeavours to force air into the chest; when this is accomplished, the air can be expelled from the lungs by pressure upon the walls of the chest and the procedure should be repeated about sixteen times in a minute. It is a good thing to have a piece of gauze between the operator's mouth and the patient's mouth

## NEWS NOTES

### BRITISH WHITE SLAVE LAW.

THE new British white slave law has become effective. It is comprehensive in its provisions, including public flogging as well as imprisonment as a penalty for men engaged in this unlawful business.

### VACCINATION

ON January 21st the Isle of Man House of Keys passed, by 17 votes to 5, the third reading of a Vaccination Amendment Bill, which contains clauses making it impossible for a person to be convicted twice in respect of the same unvaccinated child.

### MAINTAINING A MICROBE.

A COUNTRY school-teacher was cashing her monthly check at the bank. The teller apologized for the filthy condition of the bills, saying: "I hope you're not afraid of microbes."

"Not a bit of it," the school teacher replied. "I'm sure no microbe could live on my salary!"


# The Electric Light Bath

"The Electric Light Bath is a powerful eliminative measure. A person begins sweating vigorously after being in the bath from three to five minutes. When used for short periods daily, followed by short cold applications, it is an excellent tonic, and is used in emphysema, chronic bronchitis, asthma, and chronic heart affections. As an eliminative measure it is used in obesity, acute Bright's disease, diabetes, and lithemia."

The Electric Light Bath is one of the numerous methods used at the Sanitarium Treatment Rooms, 75, Park Street, Calcutta, or Kirkville, Mussoorie. For fuller information, address the Manager.

### CHILD LABOUR, NEW YORK.

TESTIMONY concerning child-labour conditions in the New York City tenement district was recently given before the State Factory Investigating Committee. Epitomized, the reports were that mothers beat their children to keep them awake when they fell asleep over their needles after working ten hours a day; that it was no uncommon sight to find children of four or five years making artificial flowers; that one of three years was found working on corset covers; that nineteen workers were found living in a two-room apartment; that children afflicted with diphtheria and tuberculosis and other diseases were found making cigarettes sold to fashionable clubs, and doing other work at a mere pittance for wages.

### ILLICIT MORPHINE.

A GENERAL investigation into the illicit sale of morphin in Paris has been ordered by the authorities of that city. They report an apparently growing craze for the drug. The vice is said to be at its worst among the young women frequenters of night cafes and dance-halls, and in the collegiate circles of the Latin quarter.

### BUBONIC PLAGUE.

THE bubonic plague has broken out near Popovka, in Russia. A company of troops has been stationed there to enforce an effective quarantine.

### CHOLERA AT MECCA.

THE cable reports 1,714 deaths from cholera in the last four days among the pilgrims at Mecca.

### GETTING READY FOR THE SCRAP-HEAP

(*Concluded from Page* 96)

skilled attention to keep it going, and sooner reaches that final condition where it must go to the scrap-head, so the human body. The hardest lesson for a young person to learn is that a wild life or a too strenuous life, or a too-indulgent life, may be hurting him permanently, even though he can not perceive any immediate ill effects. He is hastening the time when it will take the greatest care on his part, and the most skilled of medical asisstance, to keep him off the scrap-heap for a little longer.—*Life and Health*


# Don't Poison Yourself

In the use of Tea and Coffee the user constantly imbibes the narcotic poisons of the beverage. By more advanced students of human ailments this process of slow poisoning is condemned as deleterious to both bodily and mental vigour, and a habit not to be indulged in by those who would enjoy the best health.

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WE can heartily recommend the books advertised in our columns this month. Especially good for the housewife is the volume, "The Vegetarian Cook Book." Now that vegetarianism is more than a fad, in fact a demonstrated boon to all who follow it, it becomes a necessary part of the education of the housewives both of this and the coming generation. Try it.

AN Urdu Quarterly *Nishanat-i-Quiyamat* is published by the publishers of *Herald of Health*. It has a department devoted to Health and Temperance which is along the same lines which this paper advocates. If there are any of our readers who have friends who do not read English and would desire to follow our health principles in a small way, the *Nishanat* Health and Temperance department will be a real help. Price 1 anna per copy, plus postage, or 6 as. per year, post paid.

WE desire to call the attention of our readers to the advertisements which are appearing in our columns. Our aim has been and always will be, to place before our patrons only such advertising as will be in strict accord with our principles and can be depended upon as reliable. For any of the lines which are carried by our advertisers, we believe you will do well to communicate with them before looking elsewhere. Be sure to mention the "*Herald of Health*" in addressing any of these firms. By so doing you will do both them and this paper a favour.

The Sanitarium Treatment Rooms at Kirkville, Mussoorie, open on the 1st of April. These rooms are becoming increasingly popular each year and to the equipment of past years wil be added a high-frequency apparatus in its own room. together with additional room for patients during treatment. Those who plan on a vacation in the hills, or who have need of tonic treatment to restore bodily energy and courage should correspond with the manager, Kirkville, Mussoorie at once, and arrange for a course of treatments as the season will undoubtly be full.


## Steps to Christ

BY ELLEN G. WHITE

This is just the book for a gift to your friend or members of your Sabbath - school class. It contains fifteen chapters written from an intimate knowledge of the human soul's longing for greater nearness to the Saviour, by one who has long walked with the Master and knows his ways. It is a book which should have a wide circulation for the marvellous good that it can do.

For the next birthday gift that you purchase, order a copy of "Steps to Christ." In cloth, 144 pages, Rs. 2 - - post extra.

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## Stop Catching Cold!

A cold is the most common of diseases, yet how few people know just what it is, how it starts, and just how to cure it. Colds are dangerous. They destroy vitality, and prepare the way for worse conditions—sometimes for fatal diseases. The editor of LIFE AND HEALTH, Dr. G. H. Heald, has prepared a little book telling all about

### "Colds," Their Cause, Prevention, and Cure

Only 62 pages of large print to read, but it tells the whole story lucidly and completely. What it contains is worth a fortune to those that have the "habit of catching cold." The book is a Life Preserver, and should be in every home. Neatly bound in white leatherette. Only Re. 1 - - , Post Extra.

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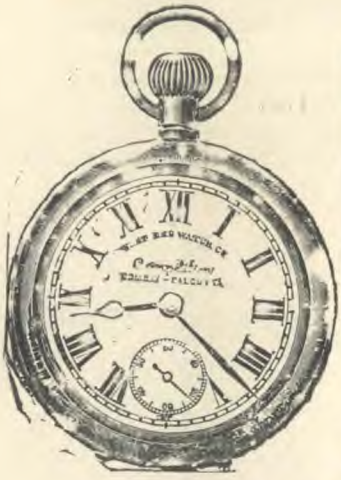

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Printed by W. E. Perrin at the International Tract Society, 17, Abbott Road, Lucknow.