

Herald of Health

Vol. 4

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No. 5



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Where's my Bottle?

HERALD OF HEALTH

The Indian Health Magazine.

V. L. Mann, M. D., Editor

S. A. Wellman, Asso. Editor.

Vol. 4

Lucknow, U. P., May, 1913.

No. 5

Diabetes: Its Outcome and Treatment

THE progress or outcome of this disease depends upon the temperament and age of the patient and the underlying cause of the condition. If the disturbance in metabolism that we spoke of in our former article has been brought about by some underlying condition which can be removed, the diabetes stops. There are poor prospects of recovery when it occurs in the young as it is quite often rapidly fatal at this time of life. We can give the best hopes in a man past middle life with an easy going temperament. On the other hand, if the patient is under middle life, of an overworked, nervous temperament, the outcome is not as favourable. When the diabetes is caused by syphilis or obesity the outlook is more favourable as these conditions can be relieved.

This is a disease in which promptness in its recognition and the instituting of proper treatment means much. If treatment is promptly and thoroughly carried out, even those for whom we have given a more or less unfavourable outlook can be helped, the unpleasant symptoms ameliorated, and the very serious complications that attend this disease avoided. It is a disease that does not tend to get well of itself, so delay is disastrous. The cases that I have seen in India have been mostly of the favourable type. On the whole one can give a more favourable prognosis than most text books and articles on this subject allow.

In taking up the treatment of this malady we will say at the beginning that the best results are obtained by the constant observation of a good pains-taking physician, who can take the time to make a study of the metabolism of the patient. It means that the urine must be examined often; that the patient's tolerance for starches and sugars, as these are the offending articles, must be found and the diet regulated accordingly. This is accomplished by weighing a prescribed daily ration containing a certain amount of starches and sugars. Then the urine must be examined to find out how much sugar is present from the ration of starches and sugars given. In this way the starches and sugars are cut down until the sugar in the urine is at a minimum and when this point is reached, we have just arrived at a working basis. Other means which we will mention later, are adopted to improve the general condition of the patient, and as the tolerance for the starches and sugars is increased without an increase of sugar in the urine, the patient is given a little more of these articles until he gets all that he can stand without an increase of sugar in the urine. Often a patient can be trained to take quite a little carbohydrate food without an increase of sugar in the urine, and in many cases the urine can be made entirely free from sugar. Sometimes it becomes necessary to add starches and sugars to the diet,

even if the sugar in the urine seems to be increasing, to avoid an acid toxemia which is one of the complications of the disease. Many will say it is impossible for me to meet these conditions, and if my life depends upon the following of a course like this, I surely will die of my disease. Remember we are giving you a plan by which you can attain the best results. If the patient cannot meet the most ideal conditions, we are glad that we can help with suggestions by which he can do a great deal for himself.

Many things or means have been tried to find a specific for the treatment of diabetes, but thus far the medical profession has failed in the undertaking. With an increased knowledge of the disease we believe that we can look forward to a time when we can attack this disease more specifically. An extract of the pancreas one would naturally think would be of a specific nature in the treatment of the disease in-as-much as this organ is directly implicated. This has been tried without the brilliant result that we might expect. So the best means that we have of treating the disease at present is along dietetic and Hygienic lines.

The dietetic treatment consists in eliminating from the diet such articles as are readily convertible into glucose: viz., the carbohydrates, or to find the carbohydrate food that will do the patient the least amount of harm. Von Nordan has found that most diabetic patients get along better on the starch found in oatmeal than on any other food. He allows the patient a daily ration of $7\frac{1}{2}$ oz. of oatmeal, 3 oz. of proteid, preferably taken from the vegetable kingdom and 9oz. of butter. This is prepared in the form of a soup and allowed at frequent intervals without occasional beverages. Gluten is a good substitute for the breads made from flour. In the April number 1912, Vol., 3, No. 4, page 65 of the "Herald" we tell how to make

gluten and gluten products. These will be found very valuable to the diabetic reader. The following list will be useful as it is admissible in diabetes.

Soups.—any kind made without rice, flour, vermicelli, or other starchy substances; and without vegetables named below as admissible.

Vegetable.—Cabbage, cauliflower, green string beans, asparagus, spinach, dandelions, tomatoes, lettuce, raw cabbage with vinegar and no sugar, olives, cucumbers, radishes, young onions, watercresses, celery, or any other green vegetables.

Bread and cakes made of pure gluten, bran, soya, peanut or almond flour, with or without eggs and butter. Eggs in any quantity and prepared in all possible ways without sugar or ordinary flours.

Butter and home made cheese.

Nuts.—all except chestnut.

Fruits.—Plums, goesberries, strawberries, acid apples, lemons, oranges, sparingly, all without sugar. Acid fruits may be stewed, with the addition of bicarbonate of sodium instead of sugar.

Jellies.—None except those not sweetened with sugar. Saccharin may be used for sweetening instead of sugar, yet it is a practise not to be recommended as a routine measure.

Drinks.—Cocoa, substitute coffee, kumiss, mineral waters, unsweetened soda waters, water.

To be especially avoided, cantaloupes or melons, watermelons, peaches, grapes, and all other sweet melons and fruits; potatoes, sweet and Irish, rice, beets, carrots, turnips, parsnips, peas, and beans; all vegetables containing starch or sugar in any quantity.

Hygienic treatment consists in taking exercise, bathing, pure air, keeping the skin clean, soft, and pliable by taking a sweat bath of some kind a couple of times a week, followed by a good cleaning of

(Concluded on Page 119)



General Articles



Accidents and Common Ailments

G. K. ABBOTT, M. D.

Sprains

SPRAINS are of such common occurrence that every one should be able to treat them with at least some degree of skill. Recovery with the least possible loss of time is fully as important in treatment as the relief of the pain. Sprains of the ankle are far more common than in any other joint, and perhaps next in frequency are those of the wrist. The condition present is the rupture of ligament by an excessive and usually unguarded movement. Pain is immediate, and congestion and swelling come on very quickly. It is perhaps needless to say that rest of the part is the first requirement in treatment.

That which is usually first resorted to is immersion or bathing of the part in hot water. This relieves the pain to quite an extent, but does not check or limit the swelling. Often the application of a liniment is all that is thought of. Sometimes the part is bandaged not only to secure rest, but to provide against excessive swelling. These are the methods in common use. While each one accomplishes one or more desirable results, none of them meets all the needs of the condition. In this connection we may well learn from the methods instinctively pursued by wild animals in like accidents. They seek a pond, lake, or better a stream, and stand with the injured member in the water, often for an hour or more at a time. This treatment with cold water, particularly running water, meets all the needs of the situation. It not only relieves the pain, but it limits the swelling and hastens healing by increasing the

rapidity of the circulation and bringing to the part many more white blood-cells, which are also more active under the influence of the cold water than under heat. The persistent and annoying pain is due almost wholly to the swelling, and consequent tension on the nerve filaments. For this reason, the relief under cold running water is more lasting after removal from the water than when treatment is had by hot water, since the cold removes the cause of the pain, that is, the swelling. The treatment may be carried out by placing the injured part under a cold-water faucet, or it may be held over a pail or tub and cold water poured over it from a dipper or pitcher.

This plan of treatment may appear rather heroic, especially for delicate persons. But in such cases a little further reasoning will suggest the necessary modification. Let the part be immersed in hot water for a few minutes, and then pour cold water over it for an equal length of time, these alternations being continued until relief is obtained. Or the part may be several times immersed alternately in hot water and cold water, or even in ice-water. In all cases, at the close of each sitting wipe the part directly from the cold water, wrap in a thin cold compress, and cover with flannel applied closely and pinned well so as to quickly bring on the heating-up process. The part should then, of course, be kept elevated as much as possible until the next treatment. The whole procedure may be repeated two or more times daily as necessary. Tight bandaging is not advisable. It limits the

swelling for the time being, but does not remove the cause, and after removal of the bandage the swelling becomes worse than otherwise. Even an uninjured part, if tightly bandaged for a few hours, will swell on the removal of the bandage.

Fractures

A broken bone must of course be attended to by a physician or a surgeon. But before the physician arrives, much may be done to relieve the pain, and also to relax the muscles preparatory to setting. This is best accomplished by the use of the fomentation, both results following the application of heat. Flannel cloths should be wrung from hot water and then wrapped quickly in dry flannel. The dry flannel cloth must be a thick one, like a new bed blanket, or else two thicknesses should be used, so that a burn will not result. As an additional precaution, the wrapped fomentation may be tested by applying it to the back of the hand or to the cheek. The fomentation is then wrapped about the fractured part, and in a few minutes another prepared. The heat should be kept up until a considerable degree of relaxation is secured, or until the physician arrives.

Burns

While we do not recommend the use of hydrotherapy in burns (at least only in exceptional cases), yet they are so frequently treated by immersion in cold water that a word here will not be out of place. It is true that cold water relieves the pain as long as the part is in the cold water, but on removal the pain becomes worse than it would otherwise have been. Probably the simplest and best treatment in the large majority of cases is the use of a watery solution of picric acid, and fanning of the part until this and the exuded serum have dried. It may then be lightly dusted with stearate of zinc, and the dressing and bandage applied. Treated in this manner burns heal with surprising rapidity. These substances produce far better results

than carron-oil, and should replace that preparation in the family medicine-chest.

Sore Throat

A simple sore throat may be very effectively treated at home. It is often accompanied by a similar condition in the larynx, and by hoarseness, sometimes lasting several days. Treatment may be carried out by a hot foot-bath and by fomentations to the throat. Both should be continued until the pain in the throat is relieved. This may require twenty minutes. If the patient has perspired because of these hot applications, a general sponge with cold water should be given, taking one part at a time, and finishing with the neck as the last fomentation is removed, and then the feet on removal from the hot water.

After this a heating compress should be applied to the neck, allowing it to remain all night or until another treatment. This is prepared by folding an ordinary cotton cloth in three or four thicknesses, forming a strip three inches wide and long enough to go one and one-half times around the neck. This is wrung from cold water, wrapped about the neck, and covered with a strip of dry flannel a little wider than the cotton piece. The latter is pinned so as to fit snugly. If left on over night, the cotton cloth should be dry by morning. After one or two treatments by means of fomentations to the neck, the plan should be altered by applying a thick cold compress for one or two minutes between the fomentations, three of which with three applications of the cold compress constitute a treatment. In simple pharyngitis the writer rarely uses any other method, except the addition of some mildly antiseptic gargle to be used at intervals of three or four hours.

Blood-Poisoning

Septicemia, or blood-poisoning, is a serious condition, but results from very trivial injuries. The causative bacteria may gain entrance through the prick of a thorn, a cut or bruise, or even the scratch

of a pin. As to whether or not these slight abrasions result in blood-poisoning depends almost entirely upon the vital resistance of the individual. Once in the tissues and unchecked by the white blood-cells, the bacteria multiply rapidly and spread along the lymphatic channels. The hand or other infected part becomes swollen, painful, and dusky in colour.

The cure of the inflammation depends upon prompt attention and thorough treatment. The condition, of course, demands the attention of a physician, but much or all of the treatment in many cases may be carried out at home.

If the infected part is a hand or foot, as it is in the majority of cases, provide two large pails or small tubs, filling one with water as hot as can be borne, and the other with ice-water with blocks of ice in it. The part should now be immersed in the hot water for two minutes, then in the ice-water for twenty to thirty seconds and returned to the hot water. These changes should be continued for about half an hour at a time, and the whole procedure repeated from two to four times a day as necessity may require. The extreme

heat and cold stimulate the circulation and reduce the swelling. That which is of the greatest importance is the great increase in the number of white blood-cells brought to the part. It is by means of these and other similar cells that the germs are destroyed. It is impossible to reach the germs by antiseptics; in fact, any antiseptic strong enough to destroy the bacteria would likewise injure the tissues, and also prevent the germ-destroying action of the white cells by which the body protects itself against infection.

Where localized abscess appears, lancing will be necessary. Red lines extending from the infected part are an indication of spreading of the bacteria, and treatment should be frequently repeated, say every three hours, until these disappear. The hot water should be kept as hot as can be tolerated by the addition of more water from a teakettle or faucet. Ordinary cold water is not sufficient; ice-water must be used. The efficacy of the treatment depends upon these extreme changes in temperature. The writer has seen scores of severe cases successfully treated by this method.

The Irregularities of Diet

WITH the advancement of modern civilization there is an increase in the irregularities of diet. These practices are pernicious to physical, mental, and spiritual development. We are told in the Holy Writ to "eat in due season."

It stands to reason that any and every part of the living organism must have some periods of rest in order to do, not only its best work, but any work at all. The digestive organs are no exception to the rule. This principle should ever be kept in view, and the meal hours should be arranged accordingly. Enough time should intervene between meals in order to give the stomach at least a minimum of

an hour's rest. Two or three hours should be the practice if possible.

The practice of taking too many meals is to be discouraged. Three meals a day should be the maximum number. Many would do better on only two. Fear need not be entertained of not supplying the needs of the body on two meals per day. Too many have the false idea that the amount of strength derived from the food eaten depends upon its quantity. This is erroneous. Energy for work does not depend on quantity, but on amount absorbed and utilized. Few realize this point. If too much is eaten the digestive organs become overworked and actually less is

utilized than if smaller amounts are eaten. When the stimulating effects of overeating have worn away, the depressing after effects are often interpreted as hunger. Thus overeating leads to overeating. Yet, on the other hand, if there is this tendency when two meals only are eaten, three small meals are better than two large ones. Eating between meals tends to greatly increase the number of meals eaten and should be positively discouraged.

Not only should the number of meals be guarded, but the regularity should be guarded as well. While the various occupations of life and conditions under which they are performed will necessarily make a difference in the hours of eating, yet for each individual and for the family there should be regularity as far as they are concerned. Great care should be ex-

ercised concerning the third meal. Late suppers are suicidal.

Practice forms habits. After a person has eaten at a certain hour for several weeks the stomach is better prepared to take the meal at that particular time than at any other time. Radical changes are disastrous unless the new diet has been made a careful study. Changes in food and hours of eating demand changes in gastric secretion.

"Regularity in eating is of vital importance. There should be a specified time for each meal. At this time let every one eat what the system requires, and then take nothing more until the next meal." Ministry of Healing, p. 303.

It is the duty of every human being, for his own sake and for the sake of humanity, to inform himself or herself in regard to the laws of organic life, and conscientiously to obey them.—*Selected.*

Common Alcoholic Beverages and Their Composition

A. B. OLSEN, M. D., D. P. H.

ALL the intoxicating beverages, whether whisky from Scotland, wine from Italy, or beer from Germany, contain alcohol in varying quantity. While these drinks also contain other ingredients, including a considerable quantity of water, alcohol, or spirit, is the distinguishing and essential characteristic, and it is that which produces the intoxicating effect. Horsley and Sturge define alcohol as follows: "Alcohol is a drug which, among others, is used by many nations as a beverage or as a medicine, very often without the least discrimination." The definition of the late Sir Andrew Clark, M. D., is still more terse. He says: "Alcohol is a poison; so is strychnine; so is arsenic; so is opium. It ranks with these agents. Health is always in some way or other injured by it."

The Properties of Alcohol

Alcohol is a clear, colourless fluid, which

has a hot, burning taste, and strong, penetrating odour. It also burns readily, and therefore makes an excellent fuel. The spirit-lamp of the nursery or of the chemist is a good example of this use. Alcohol evaporates readily, and thus has a pleasant cooling effect upon the skin when used for sponging in fevers.

According to the best authorities "alcohol is a protoplasm poison"; this means that it injures living matter, for that is the simplest definition of protoplasm. It makes a useful preservative, or pickling agent and has a hardening effect upon albumen, such as the white of an egg.

Furthermore, alcohol, like Condy's Fluid and Sanitas, is a good antiseptic, for it is destructive to germ life,

Source of Alcohol

Alcohol is prepared by a peculiar pro-

cess of decay called fermentation. The yeast-plant, which is a fungus and belongs to one of the lowest orders of the vegetable kingdom, is the agent of fermentation. It is composed of curious little round or oval cells, which multiply by budding. These living cells thrive upon sugar, which seems to be their natural food, and the waste matter produced consists of gas and alcohol. Fermentation is the essential process in the manufacture of all forms of alcoholic drinks. Wine, for example, is prepared by allowing the juice of the grape to stand until it spoils, "goes bad," or ferments, after which it is found to contain alcohol. Beer is made from barley grain, and the first step in the process is the preparation of sweet barley malt, a sort of barley sugar. When yeast acts upon barley malt, alcohol is again produced, and the liquid produced is called beer or ale, as the case may be.

Wine

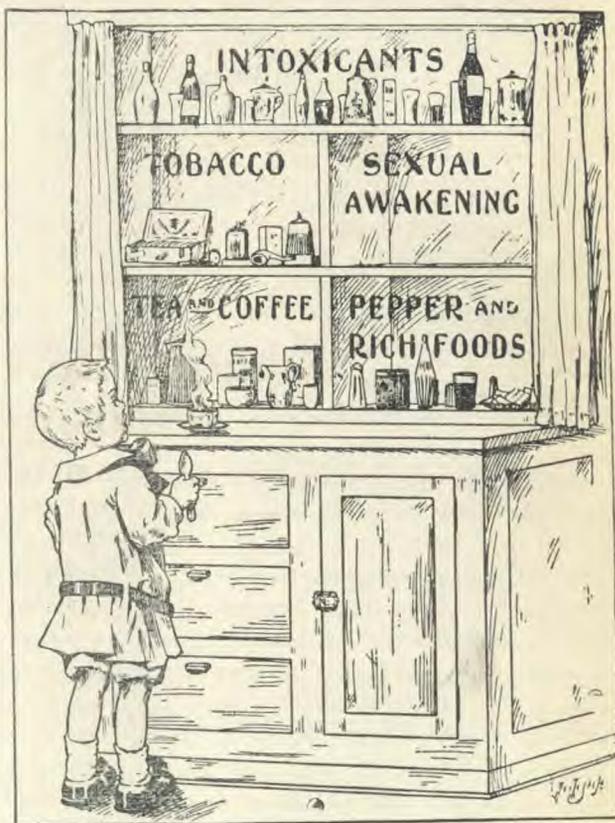
Perhaps the oldest of all strong drinks is wine, which, according to history, was well known to the ancient races of mankind, such as the Hebrews, Egyptians, Greeks, Romans, Chinese, and Hindus. It is usually prepared from the fruit of the vine, but it may be also prepared from any other fruit.

There are almost innumerable varieties of wines, and we shall not attempt classification, but only mention a few of the more common brands. Natural wines are those to which no alcohol has been added. When alcohol is added to wine to increase its strength, as in the case of port, sherry, or Madeira, it is said to be "fortified." Still wines are free from gas, while sparkling wines are purposely charged with

gas; and when they are drawn, the wine foams and froths while the gas is escaping. Sweet wines contain an appreciable amount of sugar, and are usually prepared from sweet grapes; but a dry wine contains very little sugar, most of it having been converted into alcohol during the fermentation.

Some Common Varieties

Port usually contains about twenty-five per cent by volume of alcohol. Sherry contains from fifteen to twenty-two per-



cent of spirit, and Madeira something less.

Champagne, which is generally reckoned as one of the choicest of wines, and is very expensive, is a sparkling wine from France, which contains from ten to fifteen per cent of alcohol.

Then we have Burgundy, also from France originally, but now also prepared largely in Australia.

Moselle (a German wine from the Rhine)

land), hock (still another German wine), and claret are light wines, containing from five to ten, or perhaps twelve, per cent of alcohol.

Cider is really an apple-wine, while perry is a wine prepared from pears. These drinks contain from two to seven or eight per cent of alcohol. They possess no advantage over light wines, and they are anything but innocent or harmless drinks. According to one authority, "cider is more or less an artificial drink;" that is to say, it is a beverage that is often adulterated.

Medicated Wines

Among the most pernicious of all intoxicating drinks are medicated wines, which almost invariably contain a large percentage of alcohol and various other substances, such as beef extracts, malt, iron, pepsin, and a preparation of coca leaves. Wines, that contain the latter preparation not infrequently lead to the habit of taking cocain, which is perhaps the most dangerous as well as most harmful of all habit-forming drugs. There can be no doubt that a very considerable number of persons, perhaps most of those who take these medicated wines, are deceived by them, since they look upon them as medicinal rather than intoxicating drinks. Some may possibly think that the presence of beef or malt extract or iron renders the wine harmless; but this is the farthest possible from the truth. Indeed, the very opposite is true, at least in the case of malt: for it is a well-known fact that the action of alcohol upon malt is to render it less wholesome, and therefore less efficient as a food. Furthermore, the prices charged for medicated wines are usually out of all proportion to their money value. For these reasons we would give most earnest and urgent warning against the use of any medicated wines whatsoever.

The Wine Industry

The amount of land, labour, and money that is invested in the productions of wine

throughout the world must be enormous. In France alone, according to Gautier, one-fifteenth part of the land is given over to the cultivation of the vine, and not less than one-sixth of the population earn their livelihood in connection with these enormous vineyards and their products. In a single year 1,320,000,000 gallons of wine are produced in France, or nearly 120 quarts for every man, woman, and child of that country. In Italy, Spain, and Portugal, the wine industry is also one of very great importance; and the same is to a large extent true of Germany, Switzerland, and Austria, not to mention Greece, California, and Australia.

Malt Liquors

We learn from history that the Egyptian god Osiris first taught man how to make an alcoholic drink from barley. The Abyssinians prepare their beer, called *bousa*, by spontaneous fermentation; but in civilized lands every endeavour is made to prevent this. Pure beer should be made from barley and hops, first by a malting process, and then fermentation, but this seems to be the exception according to the following quotation from Parkes and Kenwood: "These beverages [beers] were formerly made from malt and hops only; now they can be legally made from starch and sugar and various vegetable bitters." Beers vary much in their composition, but usually contain from three to eight per cent of alcohol, and four to fifteen per cent of malt extract. It is thus evident that their food value is very small indeed. England seems to be the greatest beer-drinking nation, no less than 954,000,000 gallons being used in a single year. Germany follows with 629,000,000 gallons, and France with 238,000,000 gallons.

Spirituos Liquors

The strongest alcoholic beverages are prepared by distilling the various fluids that contain alcohol. As we have already stated, alcohol evaporates readily, and by means of repeated distillation it is pos-

sible to get a very strong alcoholic preparation.

Brandy is a clear, colourless fluid after distillation ; but when stored in casks, it becomes slightly stained, and this accounts for any colour it may possess. Brandy is usually prepared from grape-wine, and contains from forty-five to fifty per cent of alcohol. Ten gallons of wine will produce from one to one and one-half gallons of brandy. It may also be prepared from apples, pears, peaches, and cherries. Cognac is a special variety of brandy which is generally associated with a place of the same name in France. Blyth tells us that "brandy made in England is for the most part artificial." Whisky is a grain spirit that is mostly prepared from barley, but it can also be manufactured from maize, or any other of the cereals. Like brandy, it is a concentrated alcoholic preparation containing from forty-eight to fifty-five per cent of spirit. It is also a product of distillation.

Rum is a concentrated West Indian beverage, which is prepared by distillation from molasses or the juice of cane-sugar, and contains from forty to forty-five per cent of alcohol.

Gin is another concentrated spirituous liquor, which is flavoured with juniper berries, giving it a rich aromatic taste. The French author Taine writes as follows regarding gin in his English literature : "Gin had been discovered in 1684, and about half a century later England consumed seven millions of gallons. The tavern-keepers on their sign-boards invited people to come and get drunk for a penny ; for twopence they might get dead drunk ; no charge for straw. The landlord dragged those who succumbed into a cellar, where they slept off their carouse."

The absinthe of France is a strong alcoholic liquor flavoured with various es-

sential oils, and particularly with the oil of wormwood. Absinthism is a great and, unfortunately, a growing evil in France. There is every reason to believe that the increasing use of this terrible poison is one of the most important factors that to-day is helping to lower the birth-rate and depopulate that great republic.

We must add a word with regard to the people who are more or less closely connected with the preparation and distribution of alcoholic beverages. As Parkes and Kenwood state, "Those engaged in the brewing and licensed victualing trades, are notably an intemperate class." With regard to the death-rate of the intemperate, we also quote from the same authors as follows: "It may be stated generally that the mortality of the intemperate is from four to five times greater than that of the strictly temperate of the same age and in the same class of life." Statistics teach us that the inn-keeper is seven times more liable to death from alcohol and diseases of the liver than all the occupied males classed together. We also know that such workers are far more liable to consumption, epilepsy, insanity, and general paralysis than total abstainers.

"DRESS, to be perfectly compatible with healthy life, should fit loosely, should be light, warm, and porous, should be adapted to the season as to colour, should be throughout every part of the clothing, upper as well as under, frequently changed, and should be, at all times, scrupulously clean. The wearing of clothes until they are threadbare, is an invariable error in all that respects the health, to say nothing of the comfort of the wearer. All bands of corsets which in any way restrict the course of the blood in any part of the body are directly injurious. Dresses dyed with irritating dyestuffs ought to be carefully avoided."

The Physiology of the Bath

DR. SIMON BARUCH, the most noted apostle of hydrotherapy in America, read a paper before the section of dietetic hygiene at the Hygiene Congress on the physiological action of the bath, in which he referred to the boy who being covered with gold-leaf to represent an angel, died in a short time, and the consequent theory that this was caused by closing up the pores. He stated that according to present knowledge, the boy died from the ailure of the body to eliminate heat, and he ridiculed the idea of any danger from "closing the pores," especially in the sense that that expression is used by those who use this method of advocating frequent bathing.

While Dr. Baruch believes thoroughly in the bath, and has been successful in having public baths installed in New York and other cities, yet he believes that the bath reacts on the health, not because it is a cleansing measure, but because of the thermic stimulation to the skin.

Naturally, as we become civilized, we want to be clean; and in proportion as we are more clean, we are more efficient, if we may judge by comparing the Japs, who are very devoted to the bath, and the Russians, who during a lifetime take three baths: one at birth, one at the wedding, and one at death. I am not sure that we can, with Dr. Baruch, attribute the defeat of the Russians in their recent war with the Japanese to the fact that they did not bathe oftener. I should rather state it that both the bath habit and the superior fighting quality are characteristics of a more progressive nation.

Dr. Baruch strongly advocates the frequent use of the bath, and the free installation of public baths so that the bath may become a pleasure rather than a necessity, not only to the well-to-do, but to those who are not so well off. He urges

it as a measure of cleanliness for comfort and self-respect, and also as a health measure through its tonic effect, by the action either of the heat or the cold on the nerves of the skin. As he says, the greater the difference in temperature between the water and the skin, the greater the thermic reaction.

Among statements which he quoted in his paper was the one attributed to Wesley, "Cleanliness is next to godliness," and also the statement by the New York school superintendent, "I place baths before libraries in the training of children."

KEEP "IN CONDITION"

TWO men are walking along the street, one half a mile behind the other. They are of about the same age, size, and weight.

The one that is ahead slips on a cunning little curl of orange-peel that lies there quietly as if expecting him. He turns his ankle slightly, and presto!—he is a lame man. He has become so for three, six, ten months perhaps.

After the first man has limped or been carried away, number two comes along on the same path. The pleasant little pitfall from the tropics is still in its place—no one having thought far enough to throw it into the gutter; and pedestrian number two slips upon it, as did his friend, a few minutes ago. His ankle turns in the same way; but he is not lamed, or more than temporarily inconvenienced.

Why?—Because he is "in condition" while the other man is not. He is in the habit of exercising each day all the principal muscles of the body; they are all ready to defend him against an attack upon any particular one; and it takes ten times as much to hurt him as it does the other man.

Keep "in condition."—*Everywhere.*

The House We Live In

The Blood

IN our articles on digestion, absorption and assimilation we brought to the attention of our readers how blood was supplied to meet the demands of the system. What we now have to say concerning the blood is with regard to its composition and its uses.

The blood is a fluid ranging from a reddish to a bluish colour depending upon its oxygen content. It has a specific gravity of 1.05 to 1.07 making it a little heavier than water. It comprises 7 to 8% of the body weight. Thus a man weighing 1 maund would lose about 6 or 8 seers of blood. We see how one can lose a considerable quantity of blood and still survive. It is alkaline in reaction which is caused by the alkaline sodium phosphate.

As soon as the blood leaves the blood vessels in which it is stored a change takes place which we call coagulation. This is a very urgent provision on the part of nature to check bleeding, otherwise when we break the continuity of the blood vessels we would bleed to death. This is what would happen when we have the nose bleed. It does not coagulate in the vessel because nature adds the necessary substance, and its environment is such that it is kept in a fluid condition.

When blood coagulates, it is noticed that it separates itself into two parts, a clear straw-coloured fluid called plasma, and a solid or clot called the corpuscles.

The plasma holds in solution the nutri-

ment derived from the digestion of our foods and oxygen. It used to be taught that the corpuscle were the only carriers of oxygen. Very recently it has been shown that the plasma, is a carrier of oxygen as well as the corpuscles. Plasma contains, in the form of proteid material, serum albumen and serum globulin. It also contains sugar fat and mineral salts.

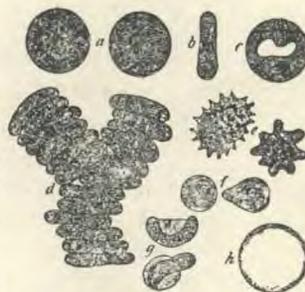
The plasma has another use outside of the upkeep of the body. It is to the plasma that the body owes to a great extent its resistance to disease.

Anti-bodies, whose duty it is to cope with outside intruders, find their habitat in the plasma of the blood. Precipitous opsonins, agglutinins, and lysins are examples of these antibodies and each has a special work to perform in combating disease. It is then these anti-bodies that make it possible that so many diseases can be treated by vaccines and sera. It is because of these anti-bodies

that disease can be diagnosed by the various blood reactions as the Widol reaction in typhoid fever.

The corpuscles of the blood are of two varieties, the red corpuscles and the white corpuscles. The average sizes of the red cells is $\frac{1}{3200}$ of an inch. They are round, biconcave, and get their red colour from a substance called hemoglobin. They assume forms called rouleau and crenation. In the former they adhere together in column like piles of coins, and in the

FIG. 40.



Red cells blood, *a*, Seen on the flat; *b*, on edge; *c*, vacuole in; *d*, in rouleau; *e*, crenation, *f*, *g*, abnormal forms; *h*, swollen in salt solution.

latter they shrink or shrivel up with the formation of nodules on the outside. In the normal blood the red cells number from 4,500,000 in the female to 5,000,000 to the cubic millimeter in the male. They undergo marked changes in that class of diseases called the anemias in which there is also a diminution in the hemoglobin. The red blood cell is not a perfect cell in that it contains no nucleus. They have no power of motion.

The colourless or white blood corpuscles vary considerably from the red cells. They average $\frac{1}{2500}$ of an inch in diameter, some being much larger than this. They are nucleated and lose the power of motion because of which they are sometimes called wandering cells. There are five different kinds of white cells, and each is recognized by its form, size and staining peculiarities.

The white cells are sometimes also called the scavengers of the body as they have the power of engulfing and eating any foreign intruder, and is therefore one of the factors in aiding the body to resist disease. The formation of an abscess or boil is a good example of this. A germ works its way into the skin where it begins to multiply rapidly. Nature at once hustles many of these little white cells to the position of the enemy. They then throw up an intrenchment around the enemy, after which a wholesale slaughter or massacre takes place. Some of the enemy are eaten up alive while those that are left are deprived of their weapons and handed over into custody where they have to be

peaceful citizens. The side that makes the attack also loses heavily. By the time peace is made by the surgeon's knife, the dead bodies and debris of both armies roll out as pus or matter.

During this battle which takes place in the tissues, the surface shows swelling, redness, heat, and pain, which are external manifestations of the trouble that is going on inside. This is the way in which the little white cells act as scavengers of the body and fortify the body against disease.

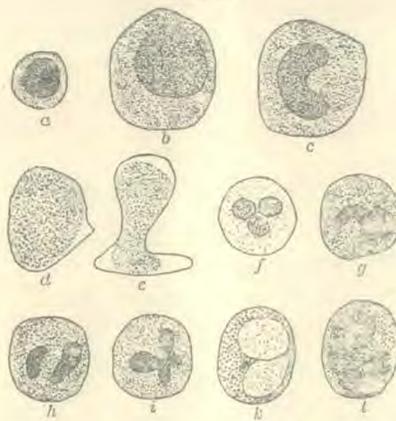
One of the most vital points in keeping the body in good health is a good, pure,

well-nourished supply of blood. In order to keep the blood in good condition, it means we must live in harmony with hygienic principles. Our food, which is transformed into blood, must be such that it meets the demands of the processes of the body, and not be a hindrance to them. The next necessity is access to an abundant supply of pure, fresh air. There are many other needs but these are probably

the two most important.

"AT the recent electrical exhibition at Olympia, near London, particular attention was attracted by the exhibits of electric heating and cooking apparatus. Since the exhibition of 1905, very great advances have been made, especially in the electric cooking devices. The economy of the method has been shown, and, moreover, it is asserted that the results of electric cooking, "from the point of view of the epicure," are unexcelled. It has also been proved that the percentage of food wasted in electric ovens is much less than the lowest attainable in ovens of other types, a fact unknown in 1905."

FIG. 41.



Various kinds and forms of leukocytes; a, small lymphocyte; b, large lymphocyte, c, transitional, d, e, f, g, h, i, different forms of neutrophile; k, eosinophile; l, basophile.



Dairy Products

GEORGE E. CORNFORTH

(Concluded)

JUNKET is prepared by coagulating milk with rennet. Rennet is a digestive principle obtained from the lining of a calf's stomach. The same ferment is secreted by the human stomach, and whenever sweet milk is taken into the stomach it is very soon turned to junket. Junket tablets may be obtained at any druggist's and at many grocers'. To prepare junket:—

To one quart milk add one-fourth cup sugar, a few grains salt, and a little lemon or vanilla flavoring. Heat until *lukewarm*. Junket can not be prepared from sterilized milk. Add one junket tablet, which has been dissolved in one tablespoonful cold water. Turn into custard cups *at once*. Allow to remain in a warm place without disturbing till set, which will take but a few minutes. Then set away in a cold place. If allowed to remain warm too long, it may sour, or the whey may separate. This makes a simple and wholesome dessert. It is very digestible, because the casein is coagulated into a soft curd, and it can not form large, hard curds in the stomach.

Whipped Cream

The most convenient way to whip cream is to put it into a tall, narrow pitcher or tin can just large enough to allow the egg beater to revolve in it. Have the cream cold. Add flavouring, and sugar in the proportion of one level tablespoonful to one cup of cream. Beat till the cream thickens, but do not expect it to become as thick as butter, because it will begin to turn to butter before it be-

comes as thick as that. Stop whipping while the cream is still smooth. If beaten too long, it looks rough and curdled.

Condensed and Evaporated Milk

Condensed milk is milk that has been evaporated in a vacuum and preserved with sugar. Sufficient sugar is used so that it is not necessary to seal it up while hot. It is put into the cans when cold, and sealed. It is really a milk sirup, and can hardly be considered wholesome to use in quantity as a substitute for milk.

Evaporated milk is milk which has been evaporated in a vacuum to between one third and one half of its original bulk, and then sealed up in a sterile condition. Diluting it with one and one-half to two times its bulk of water will make of it a milk which closely resembles new milk in its nutritive value, though not in flavour. How nearly it equals whole milk will depend upon whether it was made from whole milk or skim-milk. Evaporated milk seems to be more digestible than fresh milk, probably because it does not form large curds in the stomach. However, this should not be sufficient to recommend it as a continual substitute for fresh milk.

Butter

The wholesomeness of the average butter found on the market may be seriously questioned. In fact, both cream and butter contain more germs than an equal measure of the milk from which they were obtained. I wonder how many of our

readers have ever tasted butter which was perfectly sweet and free from tainted odour or taste. I am free to say that I have seldom tasted butter whose taste or odour did not suggest the flavour of old milk, or old butter, or something bordering on rancidity. Perhaps this flavour is commonly thought to be the natural flavour of butter. But when butter is pure and clean, it has a sweet, pure taste and odour; and such butter is seldom found, perhaps never, unless it is made from clean, pure, sterilized cream. Miss Ida May Pryce says in a recent magazine that oleomargarin "is cleaner and purer than most of the dairy butter as made to-day." We would not eat oleomargarin because it is an animal fat. But if oleomargarin is cleaner and purer than most of the dairy butter as made to-day, that fact gives emphasis to the first statement in this paragraph. Sterilizing butter will kill the disease germs, but may not remove all the objec-

tions to it due to its being produced in an unclean, insanitary manner.

To Sterilize Butter

Boil the butter in water for fifteen or twenty minutes. Allow the whole to get cold. Remove the butter from the top of the water. It will have a grainy consistency, which makes it unpalatable, and will have lost its salt, which dissolves in the water. To overcome these objections, warm the butter just enough to melt it, add salt and beat it with an egg beater while it cools. This gives it a smooth, creamy consistency.

Sterilized butter may be made from sterilized cream by the usual process of making butter. It may be made in small quantities at home by sterilizing the cream, and allowing it to stand in a cold place till the next day, then whipping it till it separates, draining off the buttermilk, washing with cold water, and working in salt.

Unpasteurised Milk

THE investigation of an epidemic of sore throat in the vicinity of Boston in which about a thousand persons were affected, forty-eight of whom died, showed it to be due to the use of milk from one of the best dairies, which has conducted its farms in the most careful manner, and has employed a competent laboratory worker to control the entire process. The investigation failed to reveal any neglect or carelessness on the part either of the company or of the bacteriologist.

Similarly there was an epidemic of diphtheria among the students of the University of Minnesota, which was traced to the use of milk from one of the model dairies of Minnesota.

The fact that from two well-regulated dairies have sprung serious epidemics is a strong argument in favour of the position of those who believe in the Pasteurisation of all public milk supplies.

It is true that disastrous epidemics from clean dairies are comparatively rare, but possibly there are other epidemics less severe which are not traced to their source because not fully investigated.

Pasteurisation, properly performed, is open to little objection, except where it is used as a substitute for cleanliness; and if it were more generally used, it would doubtless materially diminish the risk of infection from the use of milk.

AN apparatus that sterilises milk by electric light has been invented in Holland. It contains a mercury-vapour lamp, so arranged that a thin stream of milk may be made to flow over the surface of it. The ultraviolet rays from the light quickly destroy all bacteria in the milk. If this method of sterilising milk without heating proves to be practical, it will have a wide field of usefulness.—*Selected.*

: Mother and Child :

Humiliating the Child

BY DENNIS H. STOVALL

NOTHING wounds the heart of a child more keenly than humiliation. It is a form of punishment that needs to be administered with caution. There are times, perhaps, when good may come through this method of chastisement, but so rare are these occasions that the safe rule is to avoid it altogether. A child can easily detect the difference between wise correction and overhumiliation. The one leads to immediate improvement, the other brings a season of heart-breaking sorrow or stubborn resentment.

A child is but little different from a grown-up person. So it is not difficult for every mature man or woman to estimate the pain some children are obliged to endure through being overhumiliated. There are children who are never free from this. The family circle, particularly that part of it composed of the older members, is a sort of mutual flaw-picking society, each of whom makes a continual practice of holding up the shortcomings of the boy or girl for public inspection. This is humiliation in its very worst form. It is a very human thing to make mistakes, and the sensitive child suffers enough through making a misstep, without having the disagreeable thing flaunted in its face.

Just two things must result from overhumiliation. The child will either suffer with a broken heart by having its oversensitive spirit deeply wounded by the continual thrusts, or it will grow careless and indifferent of its faults. Neither one of these results is desired by the wise and thoughtful parent. Correction should serve only one purpose, and that is betterment or improvement. The sensible child

does not object to having its faults corrected, and if the correction is made in the right spirit, it will at once profit by it. But there is a vast difference between rightfully correcting a child and overhumiliating it.

Happy is that home in which there is no self-appointed critic—that cold-eyed individual who is always and forever taking notice of the undesirable things the younger members of the family do, picking out the faults, and bringing out for inspection the unfortunate habits that the boy or girl is making a good fight to subdue. The mother or the father, the older brother or sister, the uncles and aunts who appoint themselves critics for the young, are sometimes more harmful than all the evils against which the brave boy and girl fight and struggle. A mother will sometimes thoughtlessly, while calling or being called upon, use the greater part of the half-hour or hour, telling of the "bad" and "naughty" things her little boy or girl has been doing. The poor child, helpless and unable to defend itself, must sit in silence and endure the ordeal. And, as hinted, its heart is either wounded forever, or is calloused with indifference.

The writer is intimately acquainted with a family in which the children are never made to suffer the torture of overhumiliation. Obedience is a strict rule in this family, and a sharp line is drawn between right and wrong, but the method of correction or punishment is never overhumiliation. If a child commits a wrong, whether willfully or thoughtlessly, the mother calls him gently to her room and the two of them talk it over. Scolding is never

done in the presence of strangers, and punishment is never administered in the presence of the family. When at table, instead of talking of disagreeable and undesirable things, the good, the pure, the noble and the brave are brought to the fore. The motto of this happy family (and it is truly happy) is: "If I can't speak well of a person or thing, I will not speak at all."

How do they dispose of their faults and mistakes? In just the same open-hearted manner with which they conduct every phase and feature of the family life. Absolute confidence exists between the children and the parents. When a boy commits a wrong, if he is a very small boy, he goes at once to his mother and tells her of it. If he is an older boy, he goes to his father and makes the same frank confession. The boy was taught from earliest childhood that he can use his faults for self-improvement if only he will try. So he has no hesitancy in going to his father or mother with them. The rest of the family may never know what the faults were or how they occurred. These are matters that are held sacred and never revealed. So the boy improves; he gains strength to own his misdeeds and to profit by them; he gets an early appreciation of honesty and authority, and he loses all desire to correct another's faults. Though filled with a heart of love and a spirit of forgiveness, he is brave and strong, with the firm resolution and strength of purpose that characterizes the real man.

SLEEP AND AIR FOR THE BABY

THE new baby should sleep eighteen out of the twenty-four hours at first, from evening until dawn, with two daytime naps later.

Do not feed the baby at night oftener than absolutely necessary. A bottle of comfortably hot water to drink through

the nipple, a dry diaper, and a turn on the opposite side, will usually be all that is necessary to put baby to sleep when he wakes up. First substitute the hot-water bottle for one feeding at night, and gradually for others, until at five months of age baby and mother can sleep all night.

The following are some of the causes of nervousness and colic in the baby at night: First, prenatal influences, as, for instance, the effects of the mother's working hard up to the time of her confinement, or of some mental strain she endured; second, too much rocking. If the baby is rocked at all, it should be a gentle motion, soon discontinued. Few babies need any rocking; third, romping, and also sudden loud noises, which excite the baby too much for him to sleep well.

Worry or fatigue in a nursing mother, or errors in her diet, as the eating of indigestible foods, will give the baby colic. Nursing mothers should keep calm and rested; it is well for them to lie down each time while nursing, and then baby is easily left on the bed without waking him.

To be healthy, the baby must have fresh air night and day, at all seasons, during all kinds of weather. This can be accomplished in one of the following ways: Place him elsewhere, then air and heat the room before bringing him back; air an adjoining room, then close these windows, and open the door into the room where the baby is; or put his wraps on him, and air the room he is in. Sun the baby and also the room if possible, with the baby's back toward the light.

Naps or outings can be arranged on the porch or outdoors. When a blanket is needed, it is best to roll it around the baby, so he can not pull a loose corner over his face, and thus smother. Feel of the baby's hands and feet to see that they are comfortably warm. Never put enough

covers over him to make him perspire; that and extra "bundling" of the neck or other parts makes the skin sensitive, so it is easy to catch cold. Baby should live out-of-doors as much as possible; and sleep all that is possible, without loud, sudden noises near, and with the strong light shielded from his eyes.

The Baby

Environment

FROM an early age, babies notice faces and understand expressions, and also tones of the voice. The influence of living among unhappy people has been known to make a baby quite ill. Always keep a pleasant face and quiet speech in the baby's presence.

The little brain is like the sensitive plate of a camera, ready to receive impressions. Baby learns rapidly, about cleanliness of person and surroundings (environment), and to love. He learns the cuddling, warm love of the mother, the strong arm and proud love of the father. Later he notices the efforts to amuse him made by other members of the family.

Quarrelling, smoking, the sharp scratching of matches, banging of doors, and other unpleasant things that take place in some homes should be done away with, so baby can thrive.

Many feet in crossing the floor keep it unfit for the baby to sit on. A low child's chair, without rockers (for safety); a large armchair, with cushions; or a large clothes-basket or a box may be used for baby to sit in; a sheet may be spread on the floor in one corner of the room, and a fence be made around it with chairs or low baby-yard fencing.

Baby's environment should be that of kind words toward each member of the family, and his parents should take time to talk to him. Sometimes father can hold the little one while resting (and reading maybe), if mother is busy. Sometimes he should help the mother in the

evening if she is very busy, so she can have a play spell with baby. Father should help care for baby at his mealtime to give the mother a chance to eat her meal. Baby will notice this in time, and not become selfish in demands of the mother's strength and time.

Flowers on the table, music if possible, pretty pictures, reading-matter, and shiny furniture will all be noticed by the baby, and will have a good influence.

Edythe Stoddard Seymour.

DIABETES: ITS OUTCOME AND TREATMENT

(Concluded from Page 104)

the skin. This finished up with an oil rub will keep skin in good condition. The bowels must be regulated by abdominal kneading, diet, enemas, and aperients.

The medical treatment must be put into the hands of a physician. There have been many drugs used for this malady, but their results are conflicting. The opiates, especially codeine, enjoy the best reputation. It checks the amount of sugar in the urine.

Hydro-therapeutic treatment consists of graduated cool baths, wet girdle worn day and night, fomentations to the abdomen twice daily for neuritis, hot packs, fomentations and improvised Turkish baths are useful; to combat obesity sweating baths and vigorous cold applications daily will meet with results. When the patient is emaciated rest in bed, friction, massage, diet rich in fats and proteids are indicated. For sleeplessness the neutral bath at bed time, or sometimes a hot leg bath, or fomentations to the spine are excellent measures with some people.

There are many other useful measures that might be mentioned but they cannot be used in the home. They are applicable only in institutional work. Keep in mind that diabetes is a stubborn disease, so do not become discouraged if you do not immediately experience the results you expected. Faithfulness in carrying out your routine against all odds is a necessity to insure success.



ABSTRACTS



TREATMENT OF SMALL-POX BY TINCTURE OF IODINE.

With reference to Dr. Newell's note upon the treatment of small-pox by tincture of iodine, in the current number of the *Indian Medical Gazette*, the effect of its use in a recent case of mine was so remarkable that I brought the subject before the June meeting of the Burma Branch of the British Medical Association, and have much pleasure in adding my testimony to the value of this method of treatment.

One of our Little Sisters of the Poor was attacked by this disease and suffered very severe premonitory symptoms.

I had recently revaccinated all the Sisters in the Home, and was thrown off my guard when this one became very ill and delirious with a temperature of 106°F. I at once had her put into wet sheets and kept there day and night not knowing what was going to happen, when spots began to appear on her forehead and hands, and the fever subsided. I then found that at the time of the vaccination of the dozen others, this Sister was away in Moulmein. She had just returned, having contracted the disease there.

I seldom get a chance of treating a case of small-pox, but I had been on the look-out for an opportunity of using iodine, for I felt that its penetration of the thin covering of the vesicles would have the effect of destroying the activity of the micro-organisms contained in their lymph.

On the first appearance of the spots I painted them wherever they occurred with equal parts of tincture and liniment of iodine. After three days I changed this to the tincture alone, using it twice a day. The rash was profuse on the face, chest, arms and hands. The patient found the application of the tincture cooling and grateful, and asked for it to be repeated. It was kept up for six days. The result was remarkable and just that described by Dr. Newell. There was no itching, no discomfort, and no secondary fever whatever; the vesicles collapsed and shrivelled, and the cuticle peeling off, left a clean, white surface, quite free

from marks or scars.—*M. Pedley, M. D., in Indian Medical Gazette.*

YELLOW FEVER.

Regarding yellow fever which as a mosquito-borne disease forms one of the subjects for our consideration, you have all of you heard of the preventive measures that have been taken by Government and of the progress made in the "stegomyia" survey as recommended in the sixth resolution of last year's conference. The object of this survey appears to have been misunderstood in certain quarters, and one paper asks what is the use of a survey of a mosquito which is already known to exist in abundance all along our coasts. The writer has, however, overlooked the fact that although we know that this mosquito exists in large numbers, we have no exact information as to its actual breeding places, habits, etc. The observations of Boycé in the West Indies and of Howlett in this country show that at any rate in towns the extermination of the "stegomyia" or its reduction to non-dangerous numbers is theoretically possible, and our present object is to prove whether this extermination is really practicable. So far the preliminary reports are very encouraging. For instance, the survey at Rangoon shows that *Stegomyia Fasciata* is essentially a domestic mosquito and that it breeds in small collections of stagnant water such as bottles, tins, saucers, under the legs of cupboards or meat-safes, etc, within house limits so that its extermination is largely a question of house sanitation and not one involving extensive drainage operations. One of the most important duties of the Scientific Advisory Board, after allotting money for these stegomyia surveys, was to advise Government as regards the distribution of the sum of five lakhs which had been placed at the disposal of the Research Fund for anti-malarial purposes. The principle which guided us was as far as possible to recommend expenditure only on schemes which preliminary investigation had shown to be likely to accomplish definite results. Under this head come the grant-in-aid of

Rs. 50,000 to Bombay for carrying out the anti-malarial operations proposed by Bentley in Bombay City, and the sum of Rs. 1, 80,000 for the United Provinces for anti-malarial measures in Saharanpur, Nagina and Kosi, where careful malarial surveys by

Robertson and Graham have shown that mitigation of malaria in these towns is perfectly feasible at no prohibitive cost. Certain sums have also been allotted for preliminary investigations in Sind and Ennore.

- - Nostrums - -

The Advertising of Proprietary Medicines

The methods of advertising adopted by the proprietors of secret medicines are many and various. Some employ big posters on hoardings, others—an increasing number—have fringed the chief railway lines of the country with great boards bearing the names of their nostrums; almost all agree in making large use of newspapers, magazines, and other periodicals, and of copious distribution, through various agencies, of circulars and pamphlets. It is impossible to read any of the popular newspapers or magazines without seeing that the extent of such advertising is very great. As a particular example, there lies before us a letter recently sent to retailers by the makers of certain proprietary medicines, in which it is stated that

We have already largely increased our advertising, and over 800 newspapers and magazines, embracing the whole of Great Britain, are regularly carrying very effective adverts.

Ten million leaflets have been ordered to be inserted in all the principal periodicals and magazines during the next three months.

Booklets will be distributed from house to house throughout the Country during the whole summer.

In the case of another nostrum, a single article, which was before the courts a few years ago, it was proved in evidence that in five years 83 million pamphlets had been issued, and that, in the words of

the judge, "they had flooded the English speaking world with their advertisements."

While the undifferentiated "man (and woman) in the street" represents the millions of potential customers to whom the nostrum maker wishes to appeal, both the number and nature of the advertisements of proprietary medicines in any given periodical do not by any means depend only on its circulation, and the operation of certain general rules may easily be traced. There is an obvious relation between the intelligence and education of the readers on the one hand, and the extent to which they can be appealed to by such advertisements as we are considering on the other, these varying in inverse ratio.

A close connection may easily be traced, also, between the number of advertisements of patent medicines and the character of the other advertisements, the fact that a large amount of credulity on the part of the readers can be counted on being as evident from the one as the other. For example, advertisements of clairvoyants, palmists, "astrologers" who offer to foretell a person's future from the date and hour of his birth, preparations for removing superfluous hair, preventing blushing, or developing the bust are frequent in those publications most favoured by the proprietary medicine maker.

Some of the Sunday papers which have very large circulations show a very full share of advertisements of nostrums; an unselected copy of one of these which is before us contains no less than forty-one such advertisements, occupying nearly seven columns. Some of these papers have gained a good deal of notoriety for the large amount of space which they devote to reports of divorce suits and sensational crimes, and it is not surprising therefore to find the majority of proprietary nostrums advertised in them belonging to the most undesirable classes. For example, out of the forty-one just referred to, seventeen are of medicines for "female complaints," five for "lost manhood," and two for diseases of the urinary organs. Such advertisements are also abundant in the low-class "comics"; one of these taken at hazard contained eleven of female remedies.

"Religious" papers appear to be a fairly good hunting-ground for the advertisers of nostrums. In one of these—a weekly—we find eighteen advertisements of such preparations, along with "galvanic rings for rheumatism," "1s. for £1," "£2 weekly made by selling remnants," "blushing cured," "superfluous hair removed," etc.; and on another page the announcement, "The prayers of the readers of this journal are requested for the blessing of God upon those who conduct it, and also upon the sermons and narratives which are printed in it." The smaller provincial papers are in a good deal of favour for advertisements of secret medicines; as a rule a few local products of this kind are advertised as well as those of wider sale. A feature which is often to be noticed in such papers is that advertisements are accepted which from their headings and general appearance look like news paragraphs, and they are sometimes so worded that an ordinary reader might never suspect their real significance, and no

warning, "[Advt.]" or other indication appears at the end.

The feelings of disgust and annoyance which are aroused when advertisements of this kind are met with in such abundance in newspapers are of very little importance in comparison with the far greater evil of the power over the press which thus passes into the hands of the owners of the various quack medicines. Certainly one of the most effective ways of preventing people being imposed on by such articles is to publish as widely as possible authentic information as to their composition and real value; but in this task little assistance is to be obtained from the lay press, on account of the large pecuniary interest which such advertisements give it in supporting the trade. The great concentration of the ownership of newspapers, magazines, etc., in the hands of a comparatively small number of companies, is not without influence in the matter; for a newspaper which does not obtain enough advertisements of medical nostrums to give it an interest in supporting them is effectually prevented from printing anything adverse to their interests if it is the property of a firm or company owning other papers which do receive such advertisements largely. The importance of this consideration can be at once seen in connexion with any proposals for legislation; if there should appear any likelihood of an Act of Parliament being passed which would interfere with the liberty to fleece the public by means of secret remedies, the proprietors of such things can practically order the greater part of the press of the country to misrepresent what is proposed, and in every way to stir up hostility to such a measure. This consideration should not be lost sight of in judging of the proceedings or the findings of the Parliamentary Committee of Inquiry into the subject of "patent" medicines.—*Secret Remedies*,

: In the Absence of the Doctor :

TREATMENT OF BURNS.

W. A. Jack, Jr. (in *Washington Medical Annals* for May, 1912), reports good results with the dry open-air treatment of extensive burns, as advocated by Sneve. After a thorough preliminary cleaning with soap and water and gasoline (during which an anesthetic is administered, if necessary) the burned area is lightly dusted with an oily powder, such as zinc stearate, of which only enough is used to form a thin coating over the surface. Morphine is given to relieve pain and minimize shock. Once daily all heavy crusts are removed, exudate is wiped off with dry sponges, and another coating of powder dusted on. Under no circumstances must exudate be allowed to accumulate under the crust over twenty-four hours. Absolute cleanliness and dryness are the essentials of the method. After getting used to going without their usual amount of clothing, the patients are comfortable, and the dressing of their injuries is no longer the terrible task it would have been under other methods. When the procedure is faithfully carried out, healing goes on with great rapidity, and very little scarring results. Where skin destruction has been so extensive that regeneration can not occur, an excellent surface for the placing of grafts is afforded.—*New York Medical Journal*.

MAGNESIA DRESSING FOR SEVERE BURNS.

Dr. Ohleyer reports (*Aerzt. Rundsch*) upon a case of burn of the third degree which was healed in a short time by magnesia dressings. His method was as follows: Twice daily, morning and evening, the wound was covered fairly thick with magnesium carbonate, and over this a double layer of gauze, upon which a layer of absorbent cotton was secured by means of a bandage, was applied with moderate pressure. On re-dressing, the portions of the dressing which adhered to the wounds were carefully removed with pads of absorbent cotton dipped in a 1:1000 solution of lysol. The author attributes the favourable result to the alkaline properties of the magnesia, which absorbs and neutralizes the acid of the muscle

juices, and deprives the pus of its destructive action upon the skin.—*Archives of Pediatrics*.

TENDER AND BLEEDING GUMS.

Nothing so good in gingivitis as touching the gums with aromatic sulphuric acid or tincture of myrrh. Put a bit of cotton on a toothpick, dip into either preparation, and apply firmly to every part of the gum. Then as a regular daily wash use the following:—

R Thymolis, gr. v.

Acidi benzoici, gr. xxx.

Ol. menthæ pip., *m x*.

Alcoholis, oz. ij.

Half-teaspoonful to half-glass of water for brushing the teeth and gargling the mouth.

—*Critic and Guide*.

IVY-POISONING

RECENTLY it has been shown that potassium permanganate is a thoroughly efficient remedy for poison-ivy or poison-oak. The *Medical Review of Reviews* gives the following suggestions as to the method of employing this remedy:—

"First, thoroughly wash the part or parts with warm water and soap; then use an alkaline wash, as for example, a teaspoonful of bicarbonate of soda to one pint of water. Following this should come several washings in a warm two-per-cent to four-per-cent solution of permanganate of potash. The strength of the permanganate solution should vary according to the severity of the attack."

The writer would suggest that the permanganate be diluted to a light-wine colour, so that a tumbler of this solution will permit readily the passage of light. If this appears irritating, make the solution weaker. If nonirritating, it may be made gradually stronger.

REMOVAL OF EAR-WAX

Do not attempt to dig it out, as this is injurious to the lining of the ear, but gently syringe it out by means of a fountain syringe, using warm water to which a teaspoonful of baking-soda to the pint of water has been added.

ALUM IN HERPES.

George O. Williams, of New York has found a saturated watery solution of alum practically a specific in herpes, applying it even to the conjunctiva or the cornea. The results have been most satisfactory. This is especially noteworthy in view of the fact that applications ordinarily employed for herpes are of very little use. This very annoying and disfiguring malady usually runs its course unaffected by treatment.—*Monthly Cyclopaedia.*

WHOOPING-COUGH

THE paroxysms may be broken up by standing behind the patient, and, with thumbs behind the angles of the jaws and with fingers meeting and clasping the chin, pressing the jaw forward and downward. Another method is to grasp the tongue with a napkin and pull it forward.

Questions and Ans.**TREATMENT FOR DEAFNESS—L. A. H.**

DEAFNESS may come from several causes. Probably the most common is the extension of chronic inflammation from the nose and throat, then through the Eustachian tube to the middle ear where the disease brings about very serious changes in the delicate parts involved in the hearing. From the middle ear the infection extends to the inner ear where still greater damage is inflicted.

This condition is best treated by spraying out the nose and throat with an alkaline solution three times a day, followed by an oil spray containing menthol and camphor.

The middle ear is inflated and the ear drum is massaged.

These two operations must be done by a physician. If there is pus in the ear, antiseptics will have to be used to wash out the ear followed by antiseptic dusting power.

TREATMENT FOR A COLD.—W. W. S.

A cold in the acute stage or just coming on, oftentimes can be aborted by vigorous sweating and other simple methods. On going to bed, take a hot foot and leg bath, temperature 112 to 115 degrees for twenty minutes; at the same time giving three very

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hot sets of fomentations to the spine. Follow this with a couple of hot glasses of lemonade. Dry the body with friction and rub in a little oil. After getting in bed cool off slowly and avoid exposure. The next day eat mostly liquid food and drink plenty of water. Exercise three times during the day to the point of vigorous perspiration, after which take a cool sponge bath followed with an oil rub. The treatment at night may be repeated. In some cases this treatment might be interdicted, especially in those who for some cause have low vitality.

The nose and throat should be treated as outlined above under deafness.

VALUE OF MILK AND YOLK OF EGG IN FOOD—S. S. A.

We know of no particular value of the milk and yolk of egg compared with the milk and the whole egg in run down conditions. The yolk of the egg furnishes fat while the white is rich in albumen. The only advantage that might be gained in using the yolk alone would be the increase in phosphorus and sulphur taken in this way. But why not have the albumen also?

Foods to Increase Weight.—"I have faulty nutrition: is there any special food or ferment or diet that will put flesh on, providing my underweight is not due to anything except a certain condition of the digestive organs? I am twenty-six years of age. My weight is about 125 pounds, my height, five feet eight."

Unless there is some reason for faulty nutrition, there is nothing better for you than the ordinary foods, such as grains, milk, eggs, etc. It is possible that your lack of weight is due to failure to digest certain classes of foods. It would be impossible without knowing more definitely regarding your condition, to suggest specific foods. A certain amount of outdoor exercise, abundance of sleep, thorough mastication of food, and especially such food as you relish, would be advisable. Of course you can gain weight only by the use of foods that contain the proper caloric value, that is, they must contain enough of the carbohydrate and fat to supply the body, and besides give an excess for the production of surplus fat. Leanness is with some persons a constitutional matter. Some lay on fat with a very light diet, because everything they eat is thoroughly digested, and is not properly

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burned up; other people by nature do not lay on much fat, no matter what they eat, and can do so only with considerable difficulty.

Uric-Acid-Free Foods.—"What foods are to be avoided to prevent the formation of uric acid? Can you give a list of a few common foods that ought not to be used?"

The foods that are considered to produce uric acid are the meats, especially the red meat, eggs, to some extent, stimulating beverages, tea, coffee, and cocoa, and certain of the vegetable foods, especially the nuts and oatmeal, which seem to contain the purin substances even more plentifully than some of the animal fats.

Acid Stomach.—"When one has too much acid in the stomach, what is good to neutralize it?"

A diet containing a liberal supply of milk is preferable to a diet consisting largely of fruits. Milk should be sipped slowly. You should be able occasionally to use certain vegetables, but probably potatoes, except in small amount, will disagree. Usually an acid stomach is due to an excess of hydrochloric acid. Fats tend to diminish the flow of hydrochloric acid. Rice and other well-cooked cereals usually give little trouble. Especially if there is fermentation it is necessary to avoid the use of sweets. Do not take too many foods at one meal.

NEWS NOTES

REMARKABLE HEALTH FIGURES OF THE BRITISH ARMY IN INDIA.

The health of the British troops in India has now reached such a standard that the sickness is officially described as the lowest humanly possible of achievement. The figures for the last twelve months are the most favourable ever recorded; sickness was only one-half of the 1905-to-1909 average and invaliding two-thirds. Medical research into tropical diseases is mainly responsible for this result. The notable features are the drop in the cases of typhoid fever and malaria. Inoculation against typhoid fever is responsible for the decline of this disease. The health of the European soldier in India is now approximating at home; thus the ratio of constantly sick per 1,000 in India was 28.8, while at

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home it was 20. A few years ago the figure for India was 90.

SCARLET FEVER IN HOLLAND.

Pinkhof writes to the *Wiener Blinische Rundschau* that a mild form of scarlet fever has been prevailing at Amsterdam for several months. The contagious-disease ward is crowded, but the 200 children do not seem sick, and the aspect of the ward is more like that of a fresh-air camp than a hospital. For weeks the number of cases reported ranged from 150 to 180, and in numbers of other cases the children were not considered sick by their families, or the physician diagnosed the case as "fourth disease." Slight fever, slight sore throat and a little "peeling," that is all, but the entire set of measures organized against scarlet fever were brought into play. The school system is quite disorganized, and yet the total mortality from scarlet fever during the entire year of 1912 is said to have been only eight.

AMERICAN MUSEUM OF SAFETY.

At the annual meeting of this society January 23, it was announced that Mrs. Mary W. Harriman had established the E. H. Harriman gold medal to be awarded annually to the American steam railway making the best record in accident prevention and industrial hygiene. The Dr. Louis Livingstone Seaman gold medal for progress and achievement in hygiene and sanitation and the mitigation of occupational diseases was presented to the National Cash Register Company. The Rathenau gold medal was awarded to Thomas A. Edison for having invented the best device in the electric industry for safeguarding industrial life and health. This device is a storage battery light which may be carried by miners without any risk and from which no fire or explosion may be started.

SANITATION IN BANGALORE.

As a result of the inspection late last year by Major Robertson, I. M. S., of the sanitary requirements of the Civil and Military Station of Bangalore, the Government of India have now sanctioned a special grant of Rs. 4,00,000 to be expended exclusively under sanitation. This will include the further relief of the congestion in the general bazaar by the demolition of insanitary dwellings, compensation for road opening and new tenement extensions.

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SMALL-POX, plague, and measles have been epidemic in Lucknow during March and April.

THE June "Herald" will contain a leading article on how to deal with heat-stroke. In these days when such troubles are frequent you should be prepared to act quickly. The article in question will help you.

We have just received a consignment of full page half-tone blocks from England which we will use as frontispiece illustrations in Herald of Health for the next six months. Each of them has a particular charm in itself and will add materially to the appearance of the paper.

THE ORIENTAL WATCHMAN, published by the publishers of this magazine, has been running an excellent series of articles on "Turkey and Its End," showing in a forceful way the fulfilment of Bible Prophecy. These articles are now published in tract form at As. 1-3 per copy, post paid, or Rs. 4-12 per 100 post paid.

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