Herald# of Health

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The Sanitarium Bath and Treatment Rooms

ELECTRIC LIGHT BATH, RUSSIAN BATH, BLECTRIC TUB BATH, MEDICATED BATH, SITZ BATH, NAUHEIM BATH, SHOWER BATH, SPRAY BATH, GRADUATED BATH, NEUTRAL BATH, FOMENTATIONS, BLANKET PACKS

SHEET PACKS, PERCUSSION DOUCHE, FILIFORM DOUCHE, ALTERNATE DOUCHE, REVULSIVE DOUCHE, PHOTOPHORE, MASSAGE (general), MASSAGE (special), SCHOTT'S RESISTIVE MOVEMENTS. SWEDISH MOVEMENTS. ELECTRICITY.

What More Could be Asked? Sanitarium Bath and Treatment Rooms, 75, Park St., Calcutta



Medical Exhibit at the Allahabad Exposition

THE educational feature of the Allahabad Exhibition, especially along lines of health, temperance, and hygiene, occupies a prominent position.

Government has improved the opportunity to illustrate clearly and impressively the cause, means of transmission, and most successful method of preventing such diseases as malaria, tuberculosis, plague, cholera, elephantiasis, etc. Special effort has been made to demonstrate the relation of such intermediate agencies as the mosquito, the house fly, and the flea in transmitting disease.

One stall is devoted to the study of malaria, and here may be seen the different stages in the development of the mosquito from the larvæ to the adult life. From a very striking series of graphic illustrations, the demonstrator explains how the mosquito seeks stagnant pools and other collections of water in which to lay its eggs. From the eggs hatches the larva in one or two days, and in six or seven days is developed the adult mosquito. The mosquito is then followed to the home. where it is seen to bite a person ill with malaria, and then convey the infection to a healthy individual who in turn contracts the disease.

Special emphasis is placed on the prevention of malaria by destroying the mosquito larvæ, thus preventing their breeding. Three methods are illustrated: the draining or complete filling of pools; treating the surface of tanks with petroleum, and stocking tanks with small fish, a special variety of larvæ-destroying fish imported from Barbadoes, known as the millions, which will will eat fifty larvæ in three minutes. By these methods, thousands of human lives may be saved each year from the awful ravages of this one disease.

Consumption

Another stall is devoted to the study of tuberculosis. Here one may see preserved sections of tubercular lungs containing large cavities or consolidated areas. Charts are displayed showing that 25.5 per cent. of deaths in India are due to tuberculosis. Other charts illustrate in detail the methods employed in the prevention and extermination of tuberculosis. One placard reads as follows: "In case of consumption look to these for a cure." Then follow illustrations of sunlight, out-door-life, good food, and rest. Another placard headed "Consumption Allies" depicts most forcibly that intemperance, poor ventilation, overwork, crowded sleeping quarters, dust, and mouth breathing are conducive 'to tuberculosis.

The role of the house fly in the spread of consumption is clearly shown by another series of illustrations, where the fly is seen feeding on filth and tubercular sputum and then alighting on food about to be consumed by man. Cholera is also conveyed from one individual to another by this same means.

One of the greatest battles in the interest of humanity is that being waged against tuberculosis, the dread malady which at one time was considered incurable, but now deemed not only preventable, but curable by the adoption of more rational methods of living in which the out door life occupies a very prominent place.

Artificial Immunity

The demonstration with reference to the development of artificial immunity against smallpox, plague, cholera, etc., through vaccination is of special value. There is nothing more interesting in the whole history of scientific research than the discovery of the method in which the body protects itself against disease germs and their poisons by developing in the blood substances known as antitoxins, which neutralize the poison and destroy the germs. These antitoxins remain in the blood for some time, often for years, during which period the person is immune or proof against that particular disease. The discovery of these anti-bodies in the blood has led to the development of a more rational and successful method of treating infectious diseases by injection into the blood of a patient the identical antitoxin bodies which are being formed in his own blood; thus greatly increasing his resistive powers.

This plan of treating infectious diseases has lowered the mortality rate in some diseases by almost half. But this is not all the blessings that have resulted from these discoveries; for we are now also able to develop these antitoxic substances in healthy persons who are exposed to infectious disease so as to protect them from contracting the disease by the process of vaccination and inoculation.

These lines of physiological treatment, although still in their infancy, have given results which warrant our expecting even greater triumphs in the near future.



MAIN STREET U. P. EXHIBITION

The electrical exhibit attracts thousands of interested spectators; demonstrations are given daily showing the various means by which electricity is successfully used in the treatment of disease. The application of electricity by its various currents and modifications of these currents enables the experienced medical man to rejuvenate the worn out chronic invalid.

The X ray has made possible an accuracy of diagnosis which results in the saving of many lives.

The high-frequency current is one of the most remarkable developments in electro therapeutics. By its use we are able to influence the function of internal organs, as the kidneys, liver, stomach, etc., stimulating a healing reaction. In nervous disorders and muscular atrophy it has demonstrated its superior value.

Never in the history of the world has there been such wonderful progress in the science of medicine as in the last fifty years. Marvelous discoveries are being made that have been hidden during past ages; the public should take special advantage of such opportunities as are offered in connection with the Allahabad Exhibition to acquaint themselves with these advances.

Being Friendly with the Out-of-Doors

George Wharton James

As a rule, civilized people are only partially friendly to God's great outof-doors. The conditions have to be suitable, or agreeable to the senses, or they go out into the open unwillingly, preferring to shut themselves up indoors. I think this is a grave mistake. I believe firmly that God means good to us, and good only, and that his outof-doors is capable of being far more beneficial to us than we dream.

Up to a very short time ago, consumptive patients were shut up, and no draft of fresh air was allowed to reach them. Now the whole situation is reversed, and we have them sleeping out of doors on the sanitarium porches in the Adirondacks, even in winter, when the country about is deep in snow.

The other day I was consulted in regard to plans for rebuilding a large boarding school for girls. My suggestions for out-of-door sleeping are to be carried out. All the sleeping rooms are to be on open porches, with arrangements for shelter when it rains. Imagine parents of twenty-five years ago daring to send their girls to schools where they would be required to sleep out of doors.

Why this hostility to the out-ofdoors? As the title of these articles suggests, we firmly believe the out-ofdoors is God's. It is part of that creation which he beheld and declared good, very good. Hence, between man and the open air and the things of the open air, there should exist nothing but the greatest friendliness.

We may learn much from the Indian in this regard. He has no fear of the out-of-doors. He eats, sleeps, works, and lives largely in the open; he climbs mountains, and knows that somewhere will be the soft bed of ferns, of brakes, or pine boughs, or, if it storms, the shelter of a friendly cave or overhanging rock; he starts out with but little food, for he knows that somewhere, somehow, provision has been made for him.

The explorer would never do his work unless he had a deep and abiding faith in this fact that God's great outof-doors is a good place to be in. Those who heard Nansen give his lecture on his return from the "farthest North," will recall how he spoke of the intense cold, of the occasional duckings he and his sailors got in the polar seas; and yet they never knew what it was to catch cold. Yet as soon as they returned to civilization and gained the "protecting shelter" (4) of indoors, each and every one of them suffered from colds and similar afflictions.

One has but to travel on a railway



SECRETARY'S OFFICE U. P. EXHIBITION

train or electric car on a cool day to see how afraid many persons are of the open air. "Shut the door," "Keep the windows closed," they cry, "or we shall take our death of cold." Poor, miserable, mistaken beings. Why do not they learn the lesson that the open air is good for them, and accept its ministrations with a friendly welcome?

The sunlight is most friendly to man. Think of the health that comes when sunlight is allowed to flood the rooms of a house. How sweet and pure and clean they are! The bodies of men would be far sweeter, purer, and healthier if they were subjected more often to baths of sunlight. How the great throngs revel in sunlight and the sea breezes during the bathing season at the beaches, and what fine feelings of renewed health and vigour are the result! Babies and young children that are kept out-of-doors a great deal always show a better and healthier condition than those who stay in.

And it is not alone to fine weather that friendliness of the out-of-doors is confined. Bad weather, as we call it is equally beneficial with good. Rain

> is friendly to man. How it washes and purifies the atmosphere! How it cleans and scrubs the dirt from the housetops, the city streets, the alleys where stench and filth accumulate! Men ought to learn that the rain is just as good for them as it is for all the rest of nature. But the trouble is that they do not know how to go out and enjoy it.

While they are unconscious

of the fact, it is, nevertheless, true that most people value clothes more than they value themselves and the lessons God's out-ofdoors can teach them. They dare not be natural, free, spontaneous, when they get into the open, lest they ruin this, or spoil that, or soil the other. As if a hat, or a bonnet, or a jacket, skirt, coat, or pair of shoes or trousers equalled in value and importance the sitting at the shrine of open air knowledge, and drinking in stores of health and vigour from the primeval source! Dress for the open air at least once in a while, so that if it rains you can let it rain, and be happy. If you want to

throw yourself down on a bed of leaves or a stretch of grass, you can do so; if you want to climb a tree, you can go ahead; or if you want to clamber over rocks, or run down into a canon, or through a hole into a cave, you can do so, and never give your clothes a second thought. A whole suit can be bought for two or three dollars, or some old clothes may be kept for the purpose. But when you go out, go out with absolute recklessness as to clothing. Get wet, muddy, tousled, ragged, anything. but get out, and new life and health and joy and happiness will come into you as the result.

Even the so-called discomforts and dangers are found to be largely imaginary, and in time one learns to think nothing of them. Then what joy springs up in the soul, that you are the master over things that once were able to distress yon. God's out-ofdoors is friendly toward you. Accept its ministrations in peace and confidence. O, the delight of being friendly with God's great-out-of doors!

Of course I know there is seemingly another very large side to the question. I do not ignore the accidents, the shipwrecks, the tornadoes, the earthquakes, the lava flows, the destruction in a score and one different ways that come from the out-of-doors. Yet, granted all this, there is nothing gained by fear, and much is lost. And when you can go out and trust in the friendliness that exists in a thousand greater fold than you dream of, you will soon forget the small number of disadvantages in the far larger number of the blessings that come to those who believe that the world is God's, and that it means good only toward his children.

Nervous Prostration-Neurasthenia-Part Four

W. H. Riley, M. D.

Most cases of neurasthenia suffer in some manner and to a greater or less degree from disorders of digestion. The alimentary canal, including the stomach, the mouth, and the intestines, should be carefully cared for. In many cases there is an excessive secretion of hydrochloric acid in the stomach, a condition known as hyperchlorrhydria; but there are some cases with a deficient secretion of hydrochloric acid, and in which the various functions of the stomach are reduced. In addition to a disturbance in the secretion of the stomach, there is sometimes a catarrhal condition; the muscular coats of the stomach are weakened and relaxed, and the stomach is found dilated and prolapsed. The function of the intestines may also be greatly disturbed; their muscular walls may be relaxed, and frequently there is a well marked catarrhal condition of the lower bowel, as indicated by the large amount of mucous shreds which pass from the bowels in many of these cases.

The diet should be carefully selected, and the food thoroughly cooked, palatable, prepared in a dainty and tempting manner, and served to the patient under wholesome and pleasant surroundings free from depressing effects of all kinds. As a rule, patients need well cooked cereals and food in which the starch is converted into dextrin or maltose. Cases with an excess of acid in the stomach particularly need a diet free from poorly cooked starch, and the carbohydrates should be in the form of dextrinized foods and meltose. In cases where there is an excess of acid in the stomach it is particularly important that irritating, stimulating foods containing pepper, pepper-sauce, and everything of an irritating, stimulating character be eliminated from the diet list. Alcoholic liquor and tobacco should be avoided. It is also important to eliminate the excessive use of salt, a salt free diet being desirable.

For the relaxed condition of the nunscular coats of the stomach and bowels the sinusoidal current can be applied to the stomach and abdomen, one electrode in front over the abdo-



THE AGRICULTURAL COURT U. P. EXHIBITION

men, and the other over the spinal cord and back. This treatment can be taken every day and the current applied for ten or fifteen minutes each time. Massage to the abdominal muscles and special movements to replace the prolapsed stomach, in the form of manual Swedish movements are often very helpful. Constipation, which is frequently present, can also be overcome by the use of the sinusoidal current over the abdomen, by massage, and by the manual Swedish movements applied to the abdomen or the abdominal muscles, and by the use of various exercises which have for their object the strengthening of the abdominal muscles and the toning up of the muscular coats of the stomach and the bowels.

The use of tonic hydrotherapy in the form of cold wet towel rubs, cold mitten frictions, various forms of shower baths, are all helpful in toning up the muscles of the abdomen and bringing about in a reflex manner contractions of the muscular coats of the stomach and bowels. The short cold bath applied in the form of wet towel rubs, cold mitten frictions, etc., is one of the most valuable means of over coming torpidity of the stomach and

bowels and other digestive organs.

The heating abdominal pack is also a valuable remedy in relieving congestion of the abdominal organs and stimulating the various functions of the stomach, bowels, liver, etc. This heating compress is made by applying a cold wet towel over the abdomen. This is covered by a woollen cloth, and over the whole is applied a mackintosh so as to retain the heat and mois-

ture. This is usually applied at bedtime before the patient retires, and is worn all night and removed in the morning.

In addition to the stomach and intestines, the mouth should have careful attention. Any decayed teeth should be properly treated by a dentist, and great care should be taken to keep the mouth clean. A tooth brush should be used before and after each meal and before retiring. Any disease of the gums or the mouth should be looked after by a dentist. The care of the mouth,has much to do with keeping the stomach in a proper condition. In addition to the intelligent use of these remedies, the various distressing and troublesome symptoms should be looked after and properly treated as they arise in the progress of the case. These troublesome symptoms and conditions should always be cared for by the attending physician. It is generally recognized by all intelligent physicians that drugs have a very small part in the successful treatment of neurasthenia. There may be symptoms and conditions at times where the use of drugs may be necessary or allowable, but the use of drugs forms a very small part of the successful treatment of neurasthenia. Bitter remedies, such as strychnia, quinine, gentian, etc., are sometimes used for tonic effects, just as such drugs as bromides, chloral, sulphonal, tryonal, etc., are sometimes used for their sedative and hypnotic effects; but their use if long continued usually does more harm than good, and they can in no sense of the word be considered as real curative agents.

Rice the Staff of Life

RICE is unquestionably the most important food product known to man. According to Gautier, one of the greatest living authorities on foods, "Rice affords nourishment to the greatest number of people in the world." Says W. Gilman Thompson, the great American authority on foods, "Rice constitutes the staple food of the majority of the world's inhabitants." In Asia, with its population of more than a billion, or nearly two-thirds of the total population of the world, the average inhabitant, according to Clark, eats three-fourths of a pound of rice daily. Rice is indeed the principal food of the Orient. A single year's failure of the world's rice crop would practically exterminate the teeming populations of India, China, and Japan.

The Hindu labourer accepts for his regular daily ration a pound of rice, which he eats, with a little ghee, or melted butter, and finds full satisfaction. The Chinaman adds to his rice a few beans, or a little bean cheese and a small handful of peanuts. The Japanese soldiers won the greatest battle known to history on a diet of rice. The Panama canal is being dug by rice eaters. It is reported that the United State's government tried the plan of substituting wheat and corn for the rice, but without success.⁴ There is no food so satisfying to the native of the tropics as rice.

When we consider the enormous number of people whose subsistence is almost exclusively upon rice, it is evident that there must be some physiologic reasons for the preference shown for this particular cereal.

Professor Bunge, who has made a more exhaustive study of foodstuffs than any other living chemist, points out what are probably the true reasons for the choice of rice as a foodstuff by so large a part of the human race. One reason which he adduces is the remarkable ease with which rice is utilized by the body.

Rice is the Most Easily Digested of all Foods

Many experiments have shown that rice is one of the most easily digestible of all foodstuffs. No other cereal compares with it. This was shown by Beaumont in his classical experiments upon the wounded hunter, Alexis St. Martin. The following table shows the length of time required for the digestion of rice and various other foodstuffs, as 'determined by Beaumont:--

Rice, boiled, one hour.

Apples, sweet and mellow, | hour and 30 minutes.

Tapioca, 2 hours.

Barley boiled, 2 hours.

Milk, boiled, 2 hours,

Milk, raw, 2 hours, 15 minutes.

Eggs, raw, whipped, I hunr, 30 minutes.

Eggs, hard boiled, 3 hours.

Eggs, fried, 3 hours, 30 minutes.

Stewed pysters, 3 hours, 30 minutes.

Roast beef, 3 hours, 30 minutes.

Fried beef, 4 hours, 30 minutes.

Corned beef, 4 hours, 15 minutes.

Pork, roasted, 5 hours, 15 minutes.

Corn bread, 3 hours, 15 minutes.

Wheat bread, 3 hours, 30 minutes.

Potatoes, Irish, bailed, 3 hours, 30 minutes.

Potatoes, Irish, baked, 2 hours, 30 minutes.

Cabbage holled, 4 hours, 30 minutes.

Cabbage, raw, 3 hours, 30 minutes.

In all of Beaumont's experiments, no other food than rice was found which the stomach could digest in one hour. But Bunge made another original observation which is perhaps of still greater importance in placing rice at the head of the list of all human nutrients. This discovery relates to the chemical composition of rice, and especially the extremely small proportion of alkaline salts which it contains. The alkaline salts of food are kidneys. eliminated through the Healthy kidneys can eliminate enormous quantities of these salts so long as they remain in health, but overwork weakens them. As Bunge well says, "There is no organ in our body so mercilessly illtreated as the kidneys. The kidneys are obliged to let everything pass through them, and the harm done to them is not felt till it is too late to avoid the evil consequences." Certain foodstuffs contain these alkaline salts in very great excess, far more than the

body requires. Rice, according to Bunge's figures, contains less than any other cereal, in fact, less than any other foodstuff. For example, according to Gautier, oats, wheat, rye, and barley contain from live to six times as much alkaline salt as does rice; peas, twelve times as much; beef, nineteen times as much; cows' milk, nine to seventeen times as much; the potato, twenty to twenty-eight times as much. When quantities having equivalent nutritive values are compared, the potato contains, according to Bunge, forty-eight times as much alkaline salt as rice does.

It is thus apparent that the work required of the kidneys in the elimination of the alkaline salts on a diet of rice is five to forty-eight times less than is required with other foods. The enormous difference between rice and the potato in this particular is especially noticeable, and the suggestion is made that rice might be in large part substituted for the potato and for other cereals as a source of farinaceous food.

Rice in Bright's Disease

Recent statistics show that Bright's disease is rapidly increasing. The mortality from this disease is, in fact, at the present time increasing at such a rate that in twenty-eight years the number of deaths from the malady will be double the number at the present time. It is now pretty clearly established that Bright's disease is chiefly due to the influence of poisons absorbed from the alimentary canal and brought to the kidneys for elimination from the blood. The prolonged exposure of the kidney tissues to these poisons in concentrated form finally results in a hardening and destruction of the kidney tissues, so that the kid-

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Winter Vegetables

At this season most sections of India are favoured with their most abundant supply of the choicest vegetables, cabbage, cauliflower, green peas, beans, corn, spinach, fresh tomatoes, lettuce, etc.

These for the most part possess exquisite natural flavours of their own which we should endeavour to bring out and enhance, but in no case disguise or cover up with strong condiments. Hence, the great advantage of very simple preparation with little of any seasoning other than salt and perhaps a lump of butter or a little cream.

With the possible exception of green corn and peas, the per cent. of actual nutriment is not high, but these fresh vegetables contain very necessary mineral salts of lime, potash, and iron for the bones, blood, and nerves, and provide a most agreeable and healthful variety and change of diet. Some, as spinach and lettuce, possess real medicinal properties. The use of all is to be recommended as far as circumstances will permit. We give a few suggestions for preparing, combining, and serving some of these on toast in various pleasing ways.

And right here we wish to invite our friends in all parts of India, Burma, and Ceylon to send in for the benefit of all, such practical hints, suggestions, and recipes, as in their experience have been of value. We wish to secure that which is most simple, practical, and wholesome, as well as pleas-

ing, in the use of India's products or those readily obtained, thus making this department of the utmost value along very practical lines.

Peas

The flavour of peas and the time required for cooking depend largely upon their freshness. Very young peas will cook tender in twenty minutes, older peas sometimes requiring an hour or more. A teaspoonful of finely minced parsley cooked with peas imparts to them a very delicious flavour.

Stuffed Onions

Peel the desired number of onions, being careful not to cut off the root end. Take out the inside of the onion and fill the whole with a mixture of bread crumbs, beaten egg, and a little milk. Season with salt and sage. Bake in oven until brown.

Ladies' Cabbage

Firm white cabhage, 1. Butter, 1 tablespoonful. Salt. Eggs, 2.

Cream, rich, 1 tablespoonful.

Boil a firm white cabbage fifteen minutes, changing the water; add more from the boiling teakettle; when tender, drain, and set aside till perfectly cold; chop fine and add the beaten eggs, butter, salt, and cream; stir all well together and bake in a buttered dish till brown.

"THERE are just two kinds of whisky; the one is bad; the other is worse."



Treating the Sick Child in Time

Kate Lindsay, M. D.

EVERY year hundreds and thousands of persons, especially children, lose their lives because the disease was not treated in time. A child is ailing, seems feverish at night, chilly in the morning, is peevish and irritable, and has a capricious appetite. In the words of the mother, "Johnny is not like himself." And truly he is not tike his ordinary, healthy, happy self. Some poison is working mischief somewhere in the little body, deranging and upsetting the nervous system, and making him feel generally uncomfortable and out of sorts.

Taking a Child's Temperature

Whether the indisposition is serious or not is what mothers, nurses, and all having the care of children should seek to discern at once. A clinical thermometer or a thermometer for testing the temperature of the body, should be a part of every household outfit, and whenever a child is ailing. its temperature should be taken and its pulse and respirations counted. The temperature of a child in health is slightly above that of the adult, it being 98.5° to 99.5°, while that of the average adult is from 98° to 98.5°. The temperature should be taken three times a day; when it reaches 101° or above for two days, it is an indication of something serious.

Respiration and Pulse

The respirations of a new-born baby are forty a minute, and usually decline

to thirty or thirty-five by the end of the first month, continuing to decline until four or five years old, when they are twenty to twenty-five a minute. They still further decline to sixteen or eighteen at fourteen or fifteen years, which is the ordinary adult rate of respiration. The pulse at birth is usually one hundred and twenty to one hundred and forty, at one year one hundred and ten to one hundred and twenty, and gradually declines until fifteen, when it is about eighty or eighty-five. In adult life the normal rate is seventy or seventy-five. The pulse and respirations are difficult to count and very variable. In small children any exercise or other excitement may cause a rise of from ten to fifteen or twenty beats a minute, and the rate of breathing is increased in proportion. So a baby's pulse and respirations are of value only when they are observed while it is sleeping; the temperature, not being specially affected by outside influences, is the most reliable indication.

Examining the Throat

After testing the temperature, pulse, and respiration, the next most important measure is to examine the throat for redness, swelling, or white patches, which may indicate either tonsilitis or diphtheria. Hundreds of children have contracted the last-named disease and died because of a neglect of these measures. A child with an apparently slight sore throat was permitted perhaps to go to a child's party, or someone in the family where the party was held had a sore throat. I know of a case where some twenty-five children were exposed to tonsilitis by being allowed to take a ride with a child suffering with it. As the child's temperature had not been taken, no symptoms of the disease had been discovered, and no danger was apprehended. Hence, not only were the other children exposed, but the little one itself was made much worse.

Condition of the Stomach

After examining the throat and nose, the next inquiry should be as to the condition of the stomach. Many patients, especially children and young persons, owe all their trouble to a disordered condition of the stomach, due to a surfeit. The fever, headache, and boneache may all disappear with the emptying of the stomach, and bowels. Often such cases have an alarmingly high temperature for a short time, but the symptoms soon become less marked, and disappear when once the decaying food has been unloaded from the system.

The Bowels

Constipation and accumulation of fæcal matter in the bowels often cause a rise of temperature. So mothers and others caring for children should know whether the bowels are regular. The writer has seen cases in youth and children which were diagnosed as cases of tumour. In one case, when inquiry was made of the mother as to how long it had been since the bowels moved regularly, she could not tell, and by inquiry of the twelveyear-old girl herself it was ascertained that at least a week had passed without any action, the child meanwhile eating heartily of all foods found at

the table. It was not until she was taken suddenly ill with chill and fever, that the case was looked into, and a course of mild cathartics, enemas, fasting, and fomentations prescribed, which finally dispersed the swelling; but the moving off of the impacted mass was the work of many days, and after it was over, the child was so weak and emaciated that it took weeks to recover her usual health.

Infectious Diseases

The next inquiry should be as to the possibility of infectious diseases; as typhoid fever, or any of the eruptive fevers. Children are often victims of typhoid fever, and this should be borne in mind, especially if the disease is in the neighbourhood, or if there has been any danger of an infected water-supply in travelling or otherwise. In small towns and villages without water-works, there are likely to be numerous cesspools, and also many wells, shallow or deep; and it is only a matter of time, modified by the porous nature of the soil and the depth and location of the well. when the contents of the cesspool will drain into the well, and whole families be thus poisoned with filth. There are always children who are running around the neighbourhood, visiting other children, so that a case of typhoid fever may occur in a home possessing a faultless water-supply.

GREAT occasions do not make heroes or cowards; they simply unveil them to the eyes of men. Silently and imperceptibly, as we wake or sleep, we grow strong or we grow weak, and at last some crisis shows us what we have become.—*Canon Westcott*.

"THE omnipotent power of the Spirit is the defense of every contrite soul."

The Alcoholic Problem in Every-day Life

Howard A. Kelly, M. D., Professor Diseases of Women, Johns Hopkins Hospital, Ballimore, Md.

[The last few years the most intelligent physicians have all joined hands in the crusade against alcohol; for modern science utterly condemns its use, either in health or in the sick room. We are glad to present the following abstract from a paper read before the American Society for the Study of Alcohol and other Drug Narcotics at a recent meeting held in Washington, D. C. Dr. Kelly is one of America's greatest surgeons.—Ed.]

As a citizen, with eyes opened perhaps a little wider because of my medical training, I observe that alcohol has destroyed the happiness and the lives of relatives, friends, and acquaintances; that it has sometimes served to degrade the noble-minded and the Godly man below the level of the pig.

I have seen that it robs the home of peace; it puts a barrier between husband and wife, and kills all true parental tenderness, throwing the children back into the world for that moral training a father and a mother are alone fitted by nature to give.

As a citizen I observe with alarm an increasing tendency to its use by women in society, who take cocktails, champagne, and the various wines of the table. I have seen sweet, modest girls', flushed with wine, become loud and boisterous, and, with habitual indulgence, coarse, and at last ruined morally and physically. I have never met a man or a woman who indulged freely who loved the truth or had any clear vision of the value of spiritual things. Its use is perhaps the commonest cause of spiritual blindness.

As a citizen I further note that it is one of the most dreadful and insidious of all corrupting agents known to men in debauching legislatures and robbing our citizens of the results of their labours at the ballot box, making government of the people, by the people, for the people a farcical phrase, while King Alcohol sits enthroned in the legislative hall.

As a citizen 1 note that it is alcohol which fills our prisons, whether taken in the form of a stronger beverage as whisky, or beer as a representative of the milder beverages. It is at the bottom of most crime, domestic infelicity, poverty, seductions, murders; it is allied to all that is evil and destructive of the high aims of civilization.

One of the greatest lessons life has taught me is that great truths grow not stale but sweeter with repetition. so I do not hesitate to remind you of certain things, though you know them. I therefore pause a moment before I approach my conclusion to consider some of the common arguments against total abstinence urged by a friend of mine a few days ago as we discussed this momentous topic. First and foremost stand that time-honoured assertion so often heard on the lips of the drunkard, as well as of the moderate drinker. " It is a sign of weakness to pledge myself to abstinence. My will is strong enough; I can control myself, I can quit when I will."

Out of all the drunkards and tens of thousands of criminals made what they are by alcoholic liquors, of the thousands who fill our insane asylums, and the tens of thousands of dependents in our poorhouses, it would be hard to find one not equally assertive of the sovereignty of his will in all his acts, and of his entire ability to take liquor or let it alone, as he might choose, when he started out.

It is pitiful to hear now and then

even a poor, debauched drunkard, with one foot slipping over the edge of the grave, still reiterating this same old worn-out phrase. I think I still hear the last feeble refrain as he topples into the grave, "I can..."; but all who pitifully watch him know that he can't.

What a peculiarly damnable trait it is in alcohol, that while it is literally destroying the highest centres in the brain and wiping out the fibrils of association so necessary to the will in forming a judgment to act or to restrain, it yet deludes its victim into thinking that he has quickened powers, a stronger will, and a better judgment.

If it is "a sign of weakness to be a total abstainer," I hasten to confess my weakness, and I confess it for all who are dependent upon me; would that I might also make confession for the whole world. We are no stronger than many of the thousands of bright young men and fine women who thought they were strong and found out their weakness only too late. "To condemn alcohol by not taking it in company makes one appear a faddist." Well, that may be said of every one who opposes sin in any form. It is hard to go against common practice, but it is one of the hard things that puts moral fibre into one, and that's the best thing we have in life.

He who confesses that he is his brother's keeper will let alcohol alone and will fight it as the deadliest peril that has ever threatened to engulf our race.

Finally, let me add that were this whole community to adopt at once the will of this assembly and to sweep alcohol from the land, I would have no hope of any permanent betterment, unless with the movement there went a dependence on God. A real moral principle is transforming in its efficacy; mere repression is not transformation. Transformation is wrought in the soul when it stands consciously before God with the desire of seeing sin and dealing with it according to his will.

The Gospel of Health in the Public Schools

[The following report of a lecture delivered by Dr. Paulson before a large audience of Chicago school children will suggest a broad field for similar work in India.—Ed.]

Yesterday there was a veritable sea of faces greeted Dr. Paulson as he stepped out on the platform of the large assembly hall in the Bismark school. The hall was crowded to its greatest capacity, and still one-half of the students were unable to get in.

All gazed in wonderment as Dr. Paulson told them he was interested in knowing how they would look ten years from now. One could see from the look on many faces that such a thought had not occurred to them. They were living to satisfy desires of the present with no regard as to what their present habits in life would have on their future prospects.

Then Dr. Paulson told them of Dr. Pearsons, Captain Diamond, and others who are now enjoying a ripe old age because they began to sow for health early in life. He told them of the importance of breathing fresh air, maintaining good positions, chewing their food thoroughly, and not eating between meals.

Back in the old days, when the horses pulled street cars, the horses never lived more than four years because they had to work all the time. So it is with our stomachs; if we compel them to work steadily all the time they will soon wear out, and you can not buy a new stomach like you can a new horse.

Improper liabits are like bricks about the neck of a person who is learning to swim—they will pull him under every time. The cigarette habit is like a chain on the ankles with a heavy ball attached; such as prisoners have to wear while working in the stone quarry or on the road. It is easy enough to have a blacksmith file off the chain, but there is no blacksmith can be called in to file off the chains which the eigarette binds about the boy. It is sure death to the boy, but like the cat kills the mouse, it is done on the instalment plan.

If every boy who smokes had a wart come on his nose for every cigarette smoked, more than likely the first one would be the last in most cases. But, unfortunately, the warts are forming just the same, but on the brain where they can do much more damage.

One young man came to our sanitarium who was smoking seventy-five cigarettes a day. He had to pay for the cigarettes he smoked and then he had to pay rupees seventy-five a week to get rid of the habit. Poor financial proposition! One would think a person had gone crazy if he would take money and burn it; but that is identically what the cigarette smoker is doing, and he inhales the smoke besides. The boy that smokes cigarettes has bought a ticket straight through to "Down-and-Out" station. He is making himself useless for this world and unfit for the world to come.

In the Pontiac Reform school there are eleven hundred boys; and one thousand of them, the guard said, are there because of smoking cigarettes. Any boy who wants to accomplish something in life must not let the devil get his claws into him through the deadly cigarette.

As Dr. Paulson stood there and poured this living message into those young lives the boys and girls sat with their eyes, ears, and mouths wide open. There were some cigarette smokers among them, but they felt sorry for themselves and will probably have a thorny path hereafter if they attempt to keep up the practice.

The principles that Dr. Paulson taught these children should be taught by the parents in the home. Every child should be thoroughly informed as to the harm of these pernicious habits. Any mother who sends her boy out to mingle with other boys without first fortifying him against the eigarette evil and other harmful practices that he will meet, will live to regret her neglect in bitter tears.

The principal and teachers of this school who are wide awake to the importance of this instruction were delighted with the lecture. One said it struck them like an electrical shock. More must be done to educate the young to simple and health-giving habits of living.

"EVERY child bas certain inherent rights that should and must be recognized if he is to develop normally. What do I mean by normal development?—The highest, the finest, the most perfect physical, mental, and spiritual development of which the child is capable. What is the greatest difficulty in the way of this normal development in the child?—The indifference and the ignorance of the mother."

HERALD OF HEALTH

An Interesting Discovery Which Emphasizes the Importance of Thorough Mastication

J. H. Kellogg, M. D.

A NEW and surprising discovery recently made confirms in a very agreeable manner the great importance of the thorough mastication of food. Professors Roger and Simon in the course of a series of experiments made the remarkable discovery that while the saliva is rendered inert in the stomach by contact with the hydrochloric acid of gastric juice, it is reactivated after it leaves the stomach and comes in contact with the pan. creatic fluid.

The discovery referred to indicates that the digestive activity of the saliva is not destroyed by contact with the gastric juice, but is only suspended, and is reacquired after the saliva and the food with which it is mixed bave entered the small intestine.

It is apparent, then, that not only mouth and stomach digestion, but also intestinal digestion depends upon the thoroughness with which the food is treated in the mouth. The function of the mouth is by no means simply mechanical in character. The food should be reduced to a smooth pulp and should be mixed with a sufficient amount of saliva not only to facilitate its passage to the stomach but to perform that part of the work of digestion which can be best done by the ferments furnished by the salivary glands. It is a matter of very great interest to know that the saliva continues its activity throughout the whole length of the alimentary canal. Hence, time spent in the thorough mastication of food is well invested.

The amount of saliva produced in the thorough mastication of food is very much larger than might be supposed. In a series of experiments made by the writer a number of years ago, it was determined that in the mastication of dry food, such as a piece of dry toast or dry toasted wheat flake. the weight of saliva produced was exactly double that of the food chewed. An ounce of bread chewed in morsels within five minutes was found to be increased in weight by the addition of saliva two or three ounces. A half pint of dry food would thus produce a full pint of saliva. On the other hand, when the same food is eaten hastily and rinsed down with tea, coffee. or ice water, almost no saliva whatever would be formed. When it is considered that in the light of these recent researches the activity of the salivary digestion which is done in the mouth and for a brief time in the stomach extends throughout the fourteen hours or more of intestinal digestion, it is evident that the quantity of saliva produced must have an exceedingly important bearing upon the digestive process.

This discovery is one of the most momentous of recent times, and as mentioned at the outset, affords support of the most emphatic character to the contention of Horace Fletcher respecting the great importance of the thorough mastication of the food.

"Every act one commits, no matter how small, has its influence on the life of others. "One little act, like a rat hole in a dam, may flood all the work of years."

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Inconsistency of Licensing the Liquor Traffic

The licensing of the liquor traffic is advocated by many as tending to restrict the drink evil. But the licensing of the traffic places it under the protection of law. The government sanctions its existence, and thus fosters the evil which it professes to restrict. Under the protection of license laws, breweries, distilleries, and wineries are planted all over the land, and the liquor seller works beside our very doors.

Often he is forbidden to sell intoxicants to one who is drunk, or who is known to be a confirmed drunkard ; but the work of making drunkards of the youth goes steadily forward. Upon the creating of the liquor appetite in the youth the very life of the traffic depends. The youth are led on step by step, until the liquor habit is established, and the thirst is created that at any cost demands satisfaction. Less harmful would it be to grant liquor to the confirmed drunkard. whose ruin, in most cases, is already determined, than to permit the flower of our youth to be lured to destruction through this terrible habit.

By the licensing of the liquor traffic, temptation is kept constantly before those who are trying to reform. Institutions have been established where the victims of intemperance may be helped to overcome their appetite. This is a noble work; but so long as the sale of liquor is sanctioned by law, the intemperate receive little benefit from inebriate anylums. They can not remain there always. They must again take their place in society. The appetite for intoxicating drink, though subdued, is not wholly destroyed; and when temptation assails them, as it does on every hand, they too often fall an easy prey.

The man who has a vicious beast, and who, knowing its disposition, allows it liberty, is by the laws of the land held accountable for what the beast does. In the laws given to Israel the Lord directed that when a beast known to be vicious caused the death of a human being, the life of the owner should pay the price of his carelessness or malignity. On the same principle the government that licenses the liquor seller, should be held responsible for the results of his traffic. And if it is a crime worthy of death to give liberty to a vicious beast, how much greater is the crime of sanctioning the work of the liquor seller !- Mrs. E. G. White.

Rice the Staff of Lite

(Concluded from Page 26)

neys are no longer able to perform efficiently their work of blood purification. On this account, it is of the highest importance that the diet in Bright's disease should be antitoxic in in character. Bunge says, "Should not rice be employed as the chief article of diet in patients with renal disease?" The eminent professor thus calls the attention of the medical profession especially to the importance of rice as a diet for persons suffering from Bright's disease, a matter which, in view of the enormously rapid increase

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3. Rice is the most easily utilized of all foods, taxing the body least in both digestion and elimination. Food such as corn and other cereals contain five to twenty-five times as much as does rice of the irritating potash salts of which rice, of all foods, contains the least. (Bunge.)

4. Rice is the best food for sore and feeble stomachs. (Bunge.)

5. Rice should be the chief food of persons suffering from Bright's disease. (Bunge.)

6. Rice is the most antitoxic of all cereal foods, and hence the proper food for persons suffering from "biliousness" and other forms of intestinal autointoxication.

The sturdy Japanese rice eater, whether piloting a warship on the Pacific, digging a canal at Panama, fighting the Russians among the snows of Manchuria, or tilling his fields at home, is far better fed than the beef and potato eating Englishman or American. We may well learn a lesson from the Orient in the matter of diet.

"NEVER trifle with one sin. It is like a little cloud, which may hold a hurricane in its grasp. The next sin you commit may have a mighty effect in the blighting of your life."



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