THE Herald of Health

FOR THE HEALING OF THE PEOPLE

CONTENTS

Vol. 1 NOVEMBER, 1910 No. 11

The Sanitarium Bath and Treatment Rooms

ELECTRIC LIGHT BATH.
RUSSIAN BATH.
ELECTRIC 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

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Effects of Pan

The Editor

INVESTIGATION into the cause of the numerous cases of poisoning following the use of pan has demonstrated that these results were due to the natural poisonous alkaloids contained in the betel nut, and not to any germ contained in the pan as at first supposed. Doubtless, there have been many cases of illness and many deaths from the use of pan which heretofore have been attributed to other causes.

Dr. Clark, health officer of Calcutta, has the following to say in his report on the cases investigated: "The usual symptoms may be briefly described as follows: (1) Tingling and dryness of tongue; (2) Nausea with or without actual vomiting; (3) Giddiness with more or less stupor; (4) Muscular weakness; (5) Pulse variable; (6) Pupils dilated or contracted."

"These symptoms certainly suggest a mild form of narcotic poisoning." He then proceeds to show that betel nuts possess intoxicating and poisonous properties. "Betel nuts contain an alkaloid arecolin which closely resembles physostigmin in its action, (depressing heart and nervous system). Piper betel nut also contains an alkaloid arakine, from which salts similar to cocaine have been produced. The betel leaf chewed to excess is said to produce symptoms similar to those of alcoholic intoxication." To this must be added the toxic effects of tobacco and cocaine, which are sometimes taken with pan.

The cases responsible for the pan scare a short time ago were all cases of acute narcotic poisoning due to an excess of the afore named alkaloids contained in the betel used; these experiences serve as a demonstration of the real action of pan, also pointing out what tissues, organs, and functions are particularly affected by it.

My own observations have led me to the following conclusions: Pan is a narcotic stimulant; its most marked effects are due to the alkaloids arakine and arecolin contained in the betel nut. At first the stimulating properties predominate, the individual having a sense of well being, and is particularly pleased with himself. Gradually its depressing effects become more prominent, and in many cases where pan has been habitually used for a period of years it is responsible for a premature breakdown. In some cases its effect is most marked on the nervous system, producing irritability and mental confusion with various hallucinations.

The heart is depressed, retarding the circulation and producing nutritional disturbances; digestion is usually slow and imperfect, with much flatulence due to a lessening of the active principles in the digestive fluid.

Its use at first markedly stimulates sexual appetite, which in the young

leads to self-abuse, and in older persons to sexual excess. This overstimulation is frequently followed by a marked depression of these functions, and I feel confident that the free use of pan is an important factor in the rapidly increasing number of sexually impotent men and women.

The lime contained in pan, when swallowed, produces local inflammation which may be followed by ulceration. Lime is an astringent and anti-acid; it produces constipation and lessens the digestive acid in the stomach, thus interfering with the digestion of albuminous foods, favouring fermentation and putrefaction in the alimentary canal, as evidenced by the foul breath and bad taste in the mouth of pan users, which is covered by the aromatics contained in pan. This covering of the symptoms does not remove the cause, or its evil effects; like all narcotics, it is a delusion and a snare, saying, "Peace, peace," when there is no peace. Many affirm that it produces a sensation of cleanliness in the mouth after meals, which is largely due to its astringent action, and from this they conclude that it has a cleansing action on the entire system; but its real action is to produce a state of auto-intoxication as shown before.

Dentists assure us that the use of pan is responsible for disease of the gums and premature loss of the teeth. The high per cent. of cancer of the mouth in India is largely due to the use of pan.

This almost universal narcotic habit among the Indian people is levying a heavy toll upon the nation. The pan habit in India is producing its physical, mental, and moral degeneracy, as certainly as is the obacco habit in Europe and America, and the opium habit in China. But there are tokens of an awakening manifesting themselves in the form of anti-alcohol and anti-tobacco leagues, and still other movements that aim at finding the true path to health and increased physical endurance. Is it not time that we see in India an anti-pan league devoting itself to the study of this habit and educating the public regarding its evil effects? Perfect health requires neither stimulant nor narcotic.

Nervous Prostration—Neurasthenia

[UNDER the head of "Nervous Prostration," there will appear a series of articles dealing with the nature, cause, and treatment of this condition, by Dr. W. H. Riley, a nerve specialist of large experience. These articles first appeared in the American *Good Health*, and are reproduced by permission. —EDITOR.]

Current literature is filled with reports of various kinds indicating the diseased and disordered condition of the nervous system of society at the present time. We are evidently living in a time when the nerves and brains of men and women are being tried by the wear and tear incident to the complexity of social and commercial life. One of the most common disorders of the nervous system is what is usually known as nervous exhaustionor nervous prostration, or, as physicians usually term it, neurasthenia.

Causes

These may be divided into two heads; namely, predisposing and exciting. Some of the most important of the predisposing causes are heredity, race, age, sex, social conditions, location, certain occupations. Exciting causes are first mental; such as, mental shocks

and mental strains, worry, anxiety, fright, anger, (overwork and worry associated together form the most frequent exciting cause), poisons of various kinds, diseases of other organs of the body, injuries to the body. We will now discuss these further in detail.

Heredity

Heredity is a word used to express conditions which are transmitted from parents to offspring on account of some peculiarity of the original cell or cells from which we all begin our existence. In order for us to appreciate and understand to any degree the meaning of heredity, we must first realize the fact that every human individual begins his existence as a single microscopic cell, a little animal so small that we must use the microscope to see it. It requires at least two of these cells to begin the life of a human being, one coming from the mother and one coming from the father. After a union of these two cells, a human life begins its existence. These cells which come from mother and father are like the seeds or buds on a tree, which may be planted in the earth or grafted into another tree and will finally bear fruit. The plant or tree from this seed or graft is of the same kind as the parent tree from which it came. So every human being assumes the qualities, both physical and mental, of the parents which gave it birth. If the original cells which mark the beginning of the life of an individual are healthy and vigorous, and have a good measure of vitality, then the child, the boy or girl, the man or woman, which finally develops from these cells will be strong and vigorous and healthy. On the other hand, if these cells are weak, sickly, and have a small measure of vitality, the individual, the child, the boy or girl, the man or woman, which develops from these cells is liable to be weak, to lack vigour and vitality, and to be unhealthy.

The important thing in this question of heredity is the kind of material which enters into the formation of these original cells which come from the parents. In order for these original cells to be healthy, the parents from whose bodies they come must be vigorous and healthy. Heredity is used to express conditions which are transmitted from parents to offspring on account of the peculiarities of these cells which mark the beginning of every human life.

This law of heredity shows itself more distinctly in the transmission of nervous and mental disorders than in any other way. If the father or mother have a disordered or diseased nervous system, particularly if they have a peculiar type of nervous system which is irritable and unstable, this condition is very apt to be transmitted in a greater or less degree to the children. It is not often that we see a distinct disease transmitted from parent to offspring. The disordered or abnormal condition which is more often transmitted is a weakness or tendency to disease. And less often do we see a disease itself transmitted.

This heredity influence, then, usually shows itself in certain ways. First, there may be a transmission of the weakness or tendency to some nervous disorder. This is the most common way. Second, a disease itself may be transmitted, as for instance when the father has epilepsy and the son has epilepsy; or the mother has hysteria and the daughter has hysteria; or the father has some organic disease of the nervous system and the son has the same disease of the nervous system. This we call a direct transmission.

Third, a disease may be transformed as it passes from parent to child. In this case the father might have epilepsy, or some other severe disease of the nervous system, and the son suffer from some mental defect, or become insane, which sometimes happens. Nervous disorders of this kind are called transformed neuroses; that is, they are transformed or changed in passing from parent to offspring. Fourth, the hereditary factor may show itself by the child's inheriting some nervous disorder as the result of some vice or constitutional disease of the parent. For instance, where the father is a drunkard and the son is an epileptic or an idiot; or where the mother may suffer from pulmonary tuberculosis or diabetes, and the daughter have hysteria. In the last case the nervous disorder seen in the child is the result of some constitutional disease in one or both parents.

The most common diseases of the nervous system in which heredity acts as a contributing casual factor are the different forms of insanity, epilepsy, hysteria, neurasthenia, migraine, or so-called sick headache, certain peculiar spasms of the muscles known as convulsive tics, and the very rare disease myotomia. In addition to these, there are many other organic diseases of the nervous system not mentioned in this list in which the heredity factor is to a greater or less degree active. In fact, there is scarcely any disorder of the nervous system but in which this cause is active to a greater or less degree. Many children come into the world with a weak and irritable nervous system which is unable to withstand the work demanded of it in the ordinary experiences and affairs of life. Such an individual at the age of twenty to thirty may break down.

Given in the order in which the hereditary factor is most active as a cause in producing functional disorders of the nervous system, we have the following: (1) migraine, or sick headache; (2) epilepsy; (3) hysteria; (4) neurasthenia, or nervous prostration. It will be seen from this list that the hereditary factor is not so active in producing nervous exhaustion as it is in the other diseases mentioned. Nevertheless, it is the writer's opinion that it is one of the most important factors in causing this disease. And here, again, I may repeat for the sake of emphasis, that the thing which is transmitted from the parent to the child is a nervous system which is weak and irritable; and this weakness and abnormal irritability of the nervous system may be sufficiently great in some cases at some time in the life of the individual to amount to a distinct disease of itself, to which the term neurasthenia may be properly applied.

Quarantine Against Tropical Disease

DURING the period of flies and mosquitoes the average Indian home is daily endangered by malaria or intestinal diseases, or by both. Yet, in nearly every case, this peril may be reduced almost to the vanishing point by a small expenditure for wire-netting plus a reasonable amount of determination on the part of the keeper of the home.

It cannot be too strongly emphasized that every fly that enters your home may be heavily laden with the germs of typhoid fever or some other intest-

inal disease. Microscopically examined, the fly ranks as one of the most loathsome of all creatures, vultures not excepted. It feeds on filth by preference, and its feet are so formed that the germs through which it walks are carried away to be distributed wherever it may chance to land,—in the milk-pitcher, perhaps. Its possibilities in the spread of disease are shown by the fact that one hundred thousand bacteria have been found adhering to one fly.

Too many people are content with the *partial* exclusion of flies from the house. Small openings are overlooked because a few stray flies do not cause much discomfort. The extraordinarily rapid rate at which flies multiply is overlooked. Let us suppose that one fly lays her eggs in an unoccupied house that contains sufficient fly-food, and that no destructive force interferes with the successive generations. It has been estimated that the number of flies in that house at the end of five weeks would be about ten million! And yet the house-wife who pays no attention to half a dozen flies scattered through her house wonders from day to day "where all these flies come from!"

If these carriers of disease be rigidly excluded from contact with the food eaten, the danger of diarrhœal diseases may be disregarded. Here is a definite and well-authenticated instance of how they quickly spread typhoid germs:—

A regiment of healty young men, most of them from one city, was mustered into service for the Spanish-American War. For several weeks they were encamped within their own State. It was not a joyous outing; the food was scant and cooked by men who did not even know how to boil potatoes; the sudden change to tent life produced many varieties of colds; the nicknacks of the camp-followers upset the digestion of two men out of every three: on the whole, vitality was at a low ebb during the first month.

But nobody was really sick. A correspondent would send to his paper daily the names of men who had fainted during the hot afternoon drills; but the victims were back in line by the time the newspaper was published. The surgeons and the hospital stewards were occupied mainly with social functions.

Then the regiment was bundled off to Chicamauga Park, glorying in its record for health and fitness. Its new camp was laid out in an isolated grove high and well drained. Its company streets won the praise of the division staff. Its drinking water came from a deep well and from first to last was pronounced microscopically free from infection. The food was nutritious; every man in the regiment had become a fair cook; rank and file were bronzed and "hard as nails."

Within a few weeks, however, the surgeons were daily diagnosing typhoid fever; the hospital tent was crowded with patients; and now and then came the word that this man and that man had died in the general hospital. The perplexed colonel walked the surgeons from one end of the camp to the other every morning; but there was none wise enough to point his finger at the cause. They all guessed, and guessed wrong.

It is all as clear as daylight now. The Chickamauga woods were full of typhoid when the regiment with the health record had set up its tents. Within three days the new camp was full of flies, which had come from other regiments. If it had occurred

to one of the staff surgeons to examine the fuzzy feet of a few flies, he would have found the typhoid germs which he vaintly sought in the well—and his reputation would have been made. These flies walked all over the food in every company kitchen, and the proud record of the regiment was quickly shattered.

The mosquito, as well as the fly, should invariably be looked upon as a red flag of danger. The important thing to remember is that scientific medicine knows only one way in which the malaria parasite can get into the human blood current—through the bite of the mosquito.

The ease with which malaria may be acquired in a region where the mosquitoes are so scarce as to produce no discomfort is shown by the following instance:—

An American and his mosquito-bar landed on the west coast of Africa, a region which has been known for a century as "The White Man's Grave." He knew that "African fever" is simply a pernicious form of malaria; and he had been taught that without the mosquito malaria is impossible. He determined to protect himself against mosquito-bites; but he also began to take five grains of quinine daily as an extra precaution.

To his surprise, mosquitoes were not one of the white man's burdens on that coast. None of the European homes were screened; the familiar hum was never heard on the porch after twilight; and most of the beds were uncanopied. Presently the American forgot his mosquito-net, but kept up his quinine. Occasionally, on awakening in the morning, he would find a small red spot on hand or forehead; but it seemed absurd to protect against mosquitoes so few as to attract no notice.

Before the first month had expired, however, the American was tossing in bed with the fever that has taken its heavy toll on that coast. And thereafter, on an average of every two weeks for six months, he had the African fever. He steadily lost flesh and strength, his complexion turned yellow, and there was a look about the eyes that caused more than one European to take him aside and say, "Better get away for a while!"

Then an army surgeon happened along—a man with a reputation as an expert on tropical diseases. He was gathering data for a report on West African diseases. When he met the American he saw material for his report. He punctured an ear-lobe, collected a drop of blood on a glass slide, and went off to his microscope.

"The malaria parasites are eating up your red blood-corpuscles," he said the next day, as calmly as if he had announced that the pigs were in the garden. "You have two varieties. One of them can be killed with quinine; the other can't. Better run home and build up your system."

"Very well," said the American. "But when I come again the mosquito that bites me must first saw his way through the bars."—*World Work.*

"Set yourself earnestly to see what you were made to do, and then set yourself earnestly to do it; and the loftier your purpose is, the more sure you will be to make the world richer with every enrichment of yourself."

"See all things, not in the blinding and deceitful glare of the world's noon, but as they will seem when the shadows of life are closing it."

The Use of Remedies

Mrs. E. G. White

DISEASE never comes without a cause. The way is prepared, and disease invited, by disregard of the laws of health. Many suffer in consequence of the transgression of their parents. While they are not responsible for what their parents have done, it is nevertheless their duty to ascertain what are and what are not violations of the laws of health. They should avoid the wrong habits of their parents, and, by correct living, place themselves in better condition.

The greater number, however, suffer because of their own wrong course of action. They disregard the principles of health by their habits of eating, drinking, dressing, and working. Their transgression of nature's laws produces the sure result; and when sickness comes upon them, many do not credit their suffering to the true cause, but murmur against God because of their afflictions. But God is not responsible for the suffering that follows disregard of natural law. Nature bears much abuse without apparent resistance; she then arouses, and makes a determined effort to remove the effects of the ill treatment she has suffered. Her effort to correct these conditions is often manifest in fever and various other forms of sickness.

When the abuse of health is carried so far that sickness results, the sufferer can often do for himself what no one else can do for him. The first thing to be done is to ascertain the true character of the sickness, and then go to work intelligently to remove the cause. If the harmonious working of the system has become unbalanced by over-work, over-eating, or other irregularities, do not endeavour to adjust the difficulties by adding a burden of poisonous medicines.

Intemperate eating is often the cause of sickness, and what nature most needs is to be relieved of the undue burden that has been placed upon her. In many cases of sickness, the very best remedy for the patient is to fast for a meal or two, that the overworked organs of digestion may have an opportunity to rest. A fruit diet for a few days has often brought relief to brain workers. Many times a short period of entire abstinence from food, followed by simple, moderate eating, has led to recovery through nature's own recuperative effort. An abstemious diet for a month or two would convince many sufferers that the path of self-denial is the path to health.

In health and in sickness, pure water is one of heaven's choicest blessings. Its proper use promotes health. It is the beverage which God provided to quench the thirst of animals and man. Drunk freely, it helps to supply these necessities of the system, and assists nature to resist disease. The external application of water is one of the easiest and most satisfactory ways of regulating the circulation of the blood. A cold or cool bath is an excellent tonic. Warm baths open the pores, and thus aid in the elimination of impurities. Both warm and neutral baths soothe the nerves and equalize the circulation.

But many have never learned by experience the beneficial effects of the proper use of water, and they are afraid of it. Water treatments are not appreciated as they should be, and

to apply them skilfully requires work that many are unwilling to perform. But none should feel excused for ignorance or indifference on this subject. There are many ways in which water can be applied to relieve pain and check disease. All should become intelligent in its use in simple home treatments. Mothers, especially, should know how to care for their families in both health and sickness.

Action is a law of our being. Every organ of the body has its appointed work, upon the performance of which its development and strength depend. The normal action of all the organs gives strength and vigour, while the tendency of disuse is toward decay and death. Bind up an arm, even for a few weeks, then free it from its bands, and you will see that it is weaker than the one you have been using moderately during the same time. Inactivity produces the same effect upon the whole muscular system.

Inactivity is a fruitful cause of disease. Exercise quickens and equalizes the circulation of the blood; but in idleness the blood does not circulate freely, and the changes in it, so necessary to life and health, do not take place. The skin, too, becomes inactive. Impurities are not expelled as they would be if the circulation had been quickened by vigorous exercise, the skin kept in a healthy condition, and the lungs fed with plenty of pure, fresh air. The state of the system throws a double burden on the excretory organs, and disease is the result.

When invalids have nothing to occupy their time and attention, their thoughts become centered upon themselves, and they grow morbid and irritable. Many times they dwell upon their bad feelings until they think themselves much worse than they really are, and wholly unable to do anything. In all these cases, well directed physical exercise would prove an effective remedial agent. In some cases it is indispensable to the recovery of health. The will goes with the labour of the hands; and what these invalids need is to have the will aroused. When the will is dormant, the imagination becomes abnormal, and it is impossible to resist disease.

Exercise aids the dyspeptic by giving the digestive organs a healthy tone. To engage in severe study or violent physical exercise immediately after eating, hinders the work of digestion; but a short walk after a meal, with the head erect and the shoulders back, is a great benefit.

Notwithstanding all that is said and written concerning its importance, there are still many who neglect physical exercise. Some grow corpulent because the system is clogged; others become thin and feeble because their vital powers are exhausted in disposing of an excess of food. The liver is burdened in its effort to cleanse the blood of impurities, and illness is the result.

Those whose habits are sedentary, should, when the weather will permit, exercise in the open air every day, summer or winter. Walking is preferable to riding or driving; for it brings more of the muscles into exercise. The lungs are forced into healthy action, since it is impossible to walk briskly without inflating them

Such exercise would in many cases be better for the health than medicine. Physicians often advise their patients to take an ocean voyage, to go to some mineral spring, or to visit different places for change of climate, when in most cases if they would eat temperately, and take cheerful, healthful exercise, they would recover health, and would save time and money.

Jellies and Puddings

To prepare Agar-agar, or vegetable gelatine, soak it in hot water for an hour or more. Remove from the water, put into an iron or heavy bottomed kettle, and pour over it boiling water, four cups to the ounce, keeping covered while cooking. Let it boil from eight to ten minutes, or until it is perfectly clear. Strain through cheese-cloth or a wire sieve.

Lemon Jelly

Prepare two ounces of gelatine as above directed. To one-half cup of lemon juice, add one cup of sugar, one and one-fourth cups of water, and then one cup of cooked gelatine. Pour into moulds which have previously been wet with cold water, and set in a cool place or on ice to mould. This may be served with or without whipped cream, or beaten white of egg, flavoured with vanilla.

Orange Jelly

To one cup of orange juice add one cup of sugar, one-fourth of a cup of lemon juice, one-half cup of water, and one cup of cooked gelatine. Mould, and serve as for lemon jelly.

Pineapple Jelly

To one and one-half cups of pineapple juice add one-fourth cup of lemon juice, one cup of sugar, and one cup of the cooked gelatine. Mould, and serve as the lemon jelly.

Other flavours may be made by using grape, cherry, strawberry, blackberry, or other fruit juices in the place of the pineapple.—*Healthful Cookery.*

Pearl tapioca, 1 cup,

Pineapple Tapioca

Pineapple, ripe, 1,
Water, 1 quart,
Sugar, 1 cup.

Wash the tapioca, and put to cook with the water and sugar in a double boiler; cook until cleared. Pare the pineapple, remove the core, and slice very thin. Put a layer of the pineapple in a deep pan; pour over some of the tapioca, then another layer of pineapple, and so on until all the pineapple and tapioca are used. Serve cold with cream or fruit juices.

Rice Patties

Rice, cooked, 2 cups,
Butter, 1½ tablespoonfuls,
Egg whites, well beaten, 2,
Sugar, 1 tablespoonful,
Nutmeg.

Mix, and stir over the fire till well blended; when cold, form into patties, roll in beaten whites of eggs and then in bread crumbs moistened with melted butter. Bake. Serve hot with sweetened cream flavoured with nutmeg.

Caramel Custard

Milk, 3 cups,
Butter, 1 tablespoonful,
Water, ½ cup,
Sugar, 1 cup,
Eggs, 6,
Vanilla, ½ teaspoonful.

Put the butter into a saucepan and set on the fire. When melted, stir in the sugar and let cook until of a dark brown colour, stirring frequently to prevent burning. Now add the water, which should be hot, and stir until the caramel (the browned sugar) is dissolved. Beat up the eggs and mix with the milk; add this to the caramel and flavour with the vanilla. Pour into custard cups, set into a shallow pan of water, and bake until the custard is set in the middle.

The Home

The Spontaneity of God's Great Out-of-doors

George Wharton James

Every time I go out of doors, I am impressed as never before with the spontaneity of natural things. How the grass grows up, each blade cleaving the earth, uniting with every other blade to cover the bare places with richest green! Buds shoot forth from every branch. Then the peach and plum trees begin to bloom. How spontaneous all these expressions of growth and expansion are! How each bud comes forth in response to the call it hears, the impulse it feels, and yet how wonderfully harmonious is that spontaneity!

Here are wistaria and gold-of-ophir roses, a combination as delicious to the eye as it is fragrant to the senses. Whence came this delicately beautiful Japanese flower? Who originated it? Surely, it must be one of the sweet thoughts of God, for man's benefit visualized and given to him while here on earth, that he may dream of the life beyond. Every blossom is perfect; yet each one is free and independent. It grew—sprang forth spontaneously in answer to the vehement demand of its whole nature. And yet you may sit and study the whole of it, every blossom, every leaf, every pendant cluster, for an hour, a day, a week; and I defy you to find one discordant note of shape or colour in it all. Spontaneity and harmony —what a glorious combination! What a revelation and incitement to man!

See men and women as they follow the fashions. How different the results from the spontaneous harmony of the flowers, of all God's great out-of-doors. Incongruity and folly mark the dress from skin to exterior, from shoes to hats,—too close underwear, restricting corsets, tight dresses, tight and cruelly heeled shoes, uncomfortable collars, sleeves that restrict normal action of the arms, and hats that seem to be the invention of escaped lunatics. And as for the methods of hair dressing that introduce great mattresses of foreign hair to make untidy haymows of a woman's queenly head, I would imprison for life the wantons who started such fashions, and pillory the foolish girls who follow them.

And men's dress is not much better. The padded shoulders of the coats, the stiff bosomed shirts, the tight patent leather shoes, the creased trousers, the absurd high necked collars, the sham and never-deceptive cuffs, the high silk hat, or the stiff and unventilated derby, are all proof of man's lack of spontaneity and harmony in dress.

How hearty, spontaneous, and direct is the sun, and the rain and the wind,—rude, some persons might call them. When the time comes, the sun appears in full glory, without reserve, without apology, without any blowing of trumpets. And the rain, how

it falls? Day or night, when the conditions are right, it begins to descend, and either gently or tumultuously and peltingly it continues, washing the atmosphere and cooling it, cleansing the dust-laden trees, slaking the dust on the roads, washing the streets, vivifying the lawns and flower beds, supplying needed nourishment for vegetables and grains whether in the small gardens of the poor or the immense ranches of the rich, and bringing life and vigour everywhere. How spontaneous, frank, generous, open, it all is! And the odour of the flowers! How they fill the air with their rich fragrance; and the beggar may enjoy them as much as the millionaire, the illiterate as the learned, the poor as the refined.

Mankind is a part of this great out-of-doors—a thought of God who created it. He, possessing the power of reason, may study its ways, its methods, and learn therefrom. All through nature this spontaneous expression of life is found. Everything springs gladly, readily, joyously, to do its allotted work. The sun springs upon the world each morning, and delights in flooding the haunts of men, birds, beasts, and animals with light and warmth; the water flows freely, spontaneously, readily, wherever a way is made for it: the wind seeks out every nook and cranny, every corner and hidden place, and brings its purifying influence there; the rain falls on the just and the unjust; the grass grows as spontaneous for a peasant as for a king, and feeds alike the squirrel and the cow. Each does its best, readily, freely, spontaneously, without holding back; and in so doing there is a harmony, a perfection of service, that benefits and blesses the world.

Too often the trouble with mankind is that they are too affected, too civilized, too far from nature, to be spontaneous, easy, frank. From the hour of birth we restrain, restrict, confine, suppress, change, alter instead of seeking to guide the natural spontaneity of life into God-ordered channels. The result is we grow up unnatural, artificial, unspontaneous, affected. We say this is civilization, education, refinement. I do not believe it to be the true civilization, the true education, the true refinement; but a mistaken, a wrong notion of civilization, education, refinement, and takes away God-given standards and substitutes those of men. The aim of one's life should be to find God's standards and conform to them, regardless of meeting the false and harmful standards of men. We should come into the lives of our fellows with the spontaneity of the sunshine, as does the rain, the good, that God bestows alike upon the just and the unjust. In every thought and act it should be one's aim to be spontaneous, acting out not the selfish, evil, human, but the unselfish, noble, and divine.

There is more to this spontaneity of nature than most of us perceive. Not one man or woman in a million is spontaneous. We dare not be. We are afraid. We have been trained to be afraid. We live unnaturally because we have not so established the principles of life, so crystalized our thoughts, that we dare not allow our actions to spring into light unexamined, unstudied, untrimmed.

O, for the hearty, responsive, great-hearted, big souled man or woman, spontaneous, ready, willing; who clasps you by the hand speedily; who looks you in the eye readily; who pours the wealth of his intellect, his soul, his experience, over you in a

generous flood; who shines warmth and light into the darkest recesses of your life; who sends sweeping tides of great winds of purity and love into every nook and cranny, every corner and hidden place of your life; who is frank, honest, open, unaffected, sincere.

The Importance of the Teeth to Health

THE value of a perfect set of teeth cannot be estimated. Nothing is so becoming in either man, woman, or child as an even, well preserved, clean set of teeth. Not only are the teeth necessary for the proper mastication of food; but the clearness of speech, the lines of the face, and, in particular, the shape of the mouth depend upon the regularity of the teeth: and there is no reason why every person should not possess a perfect set if only proper care be exercised. The necessity of the teeth to the general well-being of the individual is not sufficiently recognized, and too much stress cannot be laid upon the necessity of teaching every man, woman, and child to look to the care of his mouth and teeth.

Attention should be paid to the teeth at the earliest possible age, and every child should be taught to keep its teeth clean. Care in this matter is one of the best methods of preserving the child's teeth and laying the foundation for a vigorous development. Many of the contagious diseases common to childhood arise from a bad condition of the mouth. Above all, it must be remembered that the first set, or milk teeth, should not of necessity decay; for, when properly cared for, they drop out as perfect as when first cut, as soon as the second set develops. Early loss of the milk teeth is certain to produce an irregular second set, which spoils the shape of the mouth and face. If decay attacks the first teeth they should be filled by the dentist; and it is a good rule to have the dentist examine the child's mouth, after three years of age, at least twice a year.

The one great essential to a healthy mouth is cleanliness. Most persons fail to take proper care of the teeth until compelled to do so by decay of one or more and its painful consequences. Decay of the teeth, recession of the gums, and deposits of tartar are preventable and are rarely found in the mouths well cared for. Dental caries or decay is unfortunately on the increase, and it is only within the last few years that dentists have completely understood what causes it.

The True Cause of Decay of the Teeth

Recent investigations have shown that all decay of the teeth is caused by an acid—lactic-acid (the same acid that is formed when milk sours). This lactic-acid is formed in several ways. Food particles, which lodge between the teeth, become infected by germs in the mouth, undergo fermentation, and produce lactic acid; the micro-organisms which cause decay are found in the mouth and lodge on the surface of the teeth, where they secrete the same acid, which is very destructive to the enamel of the teeth; while certain irregularities of the stomach and mouth glands may produce an acid condition of the saliva, which then gives rise to a slow erosion or solution of the tooth structure. Once the enamel is attacked by lactic acid, the disintegration of the body of the tooth is very rapid. It is obvious from

what has been said that irregular teeth, which are difficult to keep clean, are very liable to decay.

The use of acid foods or medicines, and of tooth powders of a gritty and insoluble nature, or which contain substances which exert a chemical action upon the enamel, may also be an additional factor in causing destruction of the teeth. It may be taken as a general rule that if the enamel of the tooth is kept intact and the mouth healthy, decay will not occur. Decay always commences from the exterior of the tooth, never from the inside. Strong alcoholic or caustic washes injure the mucous membrane, while the steady use of astringent washes and powders is injurious to the gums. Such preparations should be used only at such times as the dentist may direct, never daily. Liquids or powders containing acids of any kind, alum, or cream of tartar, are all destructive to the enamel; while powders containing charcoal, powdered barks and roots, such as Peruvian bark, orris bark, rhatany root, are injurious because the insoluble fibres collect under the margins of the gums and cause either recession or deposits of tartar. This is strikingly shown in the use of charcoal, which produces a tatooed appearance of the gums. Tooth powders containing pumice or gritty substances, if used steadily, roughen the surface of the enamel and pave the way for decay. Pumice may sometimes be used to remove stains; but it should be applied to the spot with a piece of orange wood and never used frequently in a tooth powder.

The ideal dentifrice should be in powder form; as liquid preparations are universally deficient in the cleansing properties possessed by a properly prepared tooth powder. Such a powder must be anti-acid, detergent, only slightly flavoured, mildly frictional, and an efficient but harmless germicide, in order to destroy the organisms which cause decay and are present in most mouths. It should also be soluble in the fluids of the mouth, in order to prevent insoluble particles collecting under the gums. These are the requirements for a perfect dentifrice, in accordance with the modern accepted views of oral hygiene.

How to Clean the Teeth

The teeth should be cleaned at least twice a day. The brush should be of moderate size and made of soft, fairly long bristles, in order to reach between the teeth and dislodge the food particles which invariably collect there. Remember that nine-tenths of the decay of the teeth commences between the teeth. Use plenty of powder and plenty of water, and don't scrub the teeth and gums. Much harm can be done in this way. Brush the teeth gently, giving the brush a rotary motion so as to allow the bristles to penetrate between the teeth. If the teeth are at all irregular, clean the spaces between them with a quill tooth pick or a piece of dental floss silk. Don't use metal or wood picks; the former are apt to injure the teeth and gums, and the latter are liable to splinter. Brush the grinding surfaces of the teeth, also the inner surfaces. Finally, brush the gums and tongue and rinse out the mouth with water.

The most important time to clean the teeth is just before going to bed. Dental decay is most active at night, when the mouth is quiet and there is no flow of saliva to keep the teeth protected. It is also a wise plan to look to the mouth after taking acid foods or drinks.

The War on the Cigarette

Lucy Page Gaston

THAT the innocent-looking little white rolls commonly called "coffin nails" are getting in their work to a considerable extent among the school boys of our land, the most casual observation shows. Where a few are bold enough to smoke publicly, it is an unfailing indication that often many others are indulging in the habit secretly.

The cigarette habit easily becomes epidemic in a school so that large numbers indulge in it, smoking either occasionally or habitually and secretly if not openly. The cruel indifference or ignorance of many parents is difficult to understand; as the cigarette habit in the growing youth saps the vitality, thereby stunting physical growth and stupefying the mentality. The cigarette is the seed of the drink habit, and often the forerunner also of hideous forms of personal impurity.

Not only prisons and reformatories, crowded to the limit with mere youths, but the populous insane asylums bear sad testimony to what the cigarette is helping to make of bright promising boys such as to-day in our schools are tampering with cigarettes.

Parents who read this word of warning may well go into secret session with their young hopefuls for a heart-to-heart talk. Parental authority should be sufficient in the case of any one found guilty. A comparatively short indulgence, let it be remembered, changes a boy into a contemptible sneak who will lie and even steal if necessary to get the means to indulge his appetite. I have had parents assure me that their boy was a model in this respect when I knew, and many others knew, that he was becoming a cigarette fiend.

A pledge upon honour not to smoke at least until he is twenty-one is a great safeguard to a boy in his early teens and through the crucial years before his majority.

The Anti-cigarette League has for years done for boys in the mass what careful parents are doing for their own loved ones. Many a tempted boy has been saved by this simple effort by an earnest organizer in a public school. An Anti-cigarette school campaign is a great blessing to the homes of any community, as many cities can testify.

In America ten States have made the cigarette an out-law by absolutely prohibiting the manufacture and sale of cigarette and cigarette papers, and many other States are now lining up their forces for a fight to the finish with the worst foe that ever threatened the youth of the race.

It is evident to most thinking persons that it is necessary to strike at the root of the evil and clear the markets of what can so easily find its way into the hands of the young, the weak, and the unwary. Practical business men, especially employers of young help, are urging the most drastic legislation possible.

The Missing Exhibit

NONE of the world's great expositions has given full representation to one of the leading industries of nearly every country on the globe. This is the liquor industry. It has always suffered neglect at the hands of those having expositions in charge. This may not have been due to conscious

discrimination; for, perhaps, it has never occurred to the liquor interest to take advantage of such an opportunity for exploiting its products, and it may never have occurred to anyone else to urge such a display; but Mr. Gough once saw fit in one of the great cities of England to suggest at least what might be done in this direction.

Seeing a drunken man lying on the ground just outside of a saloon door, he hastened across the street to a grocery store, and requested a sheet of paper. With a piece of coloured crayon, he wrote in large letters the words: "Specimen of the work done inside." Then hastening to where the drunkard lay, he pinned the paper to the man's coat, and stood aside to see the effect produced upon the passers-by. A crowd soon gathered, which attracted the attention of the saloon-keeper. As he came out and observed the cause of unusual interest, he angrily asked, "Who did it?" "Which?" asked Mr. Gough. "If you mean what is on the paper, I did that; if you mean the man, you did it. This morning when he started for his work, he was a sober man; when he went into your saloon, he was a sober man; when he came out, he was like that, and he was what you made him. If he is not a specimen of the work done inside, what is he?"

If only a few of the truest representatives of the work done by the liquor-traffic had been sent to any one of our great expositions, and these had all been placed on exhibit in one building, would it not have been a significant object lesson?

The drunken bloat, the loafer, the ragged, filthy gutter-sleeper, the maddened demon, the silly, chattering imbecile, the brazen harlot, the neglected home, together with the broken-hearted wife, the distracted father, the starving child, the hopeless epileptic—these give but a suggestion of the fearful ravages the liquor traffic is making upon the homes and citizens of our fair land. What an exhibit the liquor products of the whole world must make to him who beholds them all, past, present, and future! And what must he think of the man who, in the face of all this devastation, lifts his voice for the continuation of the evil!—*Selected.*

The Relation of Meat-eating to the Plague

For centuries the plague has prevailed more or less severely among the inhabitants of Persia, India, and other parts of the Orient. These people are, for the greater part, rice-eaters. Flesh foods are little used, partly because of their expensive character, and partly because of religious scruples. The fact that meat is little eaten by the people among whom bubonic plague has prevailed most extensively and constantly has enabled the defenders of the flesh diet to construct an argument for a flesh diet, the contention being that a flesh diet builds up the resistance of the body to disease, thus fortifying it against the plague as well as against other infections.

Certain of the newspapers of San Francisco long refused to recognize the presence of plague in the city, declaring that "no plague existed, or ever had existed, or ever could exist among meat-eating white people." Dr. Blue, the special agent of the American government, who for two

(*Concluded on Page Seventeen.*)

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Who Should Visit the Mussoorie Sanitarium

NEARLY all invalids would be benefited by a sojourn at the Sanitarium. It is especially organized and equipped to meet the needs of chronic invalids who have long been sick, and cannot recover at home, or who, for lack of facilities which their cases require, are not likely to get well at home.

Digestive Disorders

Nine-tenths of the people are afflicted with dyspepsia; consequently, chronic digestive disorders form a large percentage of the cases treated. A great many of these cases have run the gamut of patent medicines, stomach bitters, and dyspepsia tablets, without securing relief; and, almost in despair of obtaining help, they turn to the Sanitarium, where the systematic lines of treatment, with the special facilities for diagnosis and accurate diet prescriptions, afford relief in the most aggravated cases, and effect remarkable cures in the majority of others.

Diseases of the Nervous System

Among the cases successfully treated at this Institution, chronic diseases of the nervous system are the most prominent. Functional derangements, such as nervous prostration, brain fag, migraine, neurasthenia, and hysteria, together with the milder forms of organic disturbance of the spine, brain, and peripheral nerves, are treated with the best results. The Institution offers the best possible advantages, both in medical equipment and natural surroundings, for the treatment of all forms of paralysis, neuralgia, nervous headache, locomotor ataxia, mental depression, and melancholia. The whole sanitarium system is adapted to the building up and reconstruction of the nervous system.

Constipation

Chronic and obstinate cases of constipation, whether from atony and dilatation of the colon, dietetic errors, or spasm of the colon with contraction of the abdomen, are successfully treated by the combined means of diet, hydrotherapy, electricity, and massage. Our experience with this class of cases warrants us in offering encouragement to those who suffer from this annoying malady. Enteroptosis, or prolapsus of the abdominal viscera, is also treated with good results.

Bright's Disease and Diabetes

The accurate methods of diagnosis, and the facilities for careful diet regulation, yield specially encouraging results in the management of these two serious and difficult diseases. Cases of this class are amenable to treatment when under the influence of the Sanitarium regime, as nowhere else.

Rheumatism and Gout

These painful affections are favourably influenced by the various baths and other treatments administered, and patients are oft-times afforded speedy relief from pain and other symptoms by strict adherence to the non-uric-acid-diet here provided. A sojourn at the Sanitarium cannot but prove of great value to those suffering from rheumatism.

Liver Disorders

The liver is one of the vital organs most seriously damaged by modern high living. Jaundice, torpid liver, and biliousness are common disorders. The Sanitarium offers special help to this class of sufferers, by means of its regulated dietary which affords the liver a chance to rest, as well as the hepatic douche and other special treatments calculated to arouse the liver to its normal activity.

THE RELATION OF MEAT-EATING TO THE PLAGUE

(*Concluded from Page Fifteen*)

years has been at work fighting this dread scourge in San Francisco, has utterly routed the defenders of this theory, and has demonstrated to the satisfaction of everybody that meat-eating is no defence against this grave malady.

It is not the rice diet of Orientals which leads to the prevalence of plague among them, but the utter lack of sanitation and the presence of countless numbers of fleas, with rats and other rodents which are highly subject to this disease. As a matter of fact, the plague seems to be peculiarly a meat-eater's disease. The rat is a meat-eater. He gets the disease. The flea, a flesh-eater, or at least a blood-eater, contracts the disease from the rat and conveys it to man. While flesh-abstainers are not exempt from this disease, it quite likely will be shown sometime that the meat-eater is actually more liable to contract this disease than flesh abstainers. It has been clearly established that the flesh-abstainer has far greater resistance against fatigue than the meat-eater has. The physiologic reasons for this fact, so well shown by Professor Fisher's classical experiments, ought to apply equally well to resistance against disease.

Arguments in support of flesh-eating are a scarce commodity these days. Modern advances in physiology, physiologic chemistry, and bacteriology, as well as practical experience, have left little ground for the defence of the use of animals for food.—*J. H. Kellogg, M. D.*

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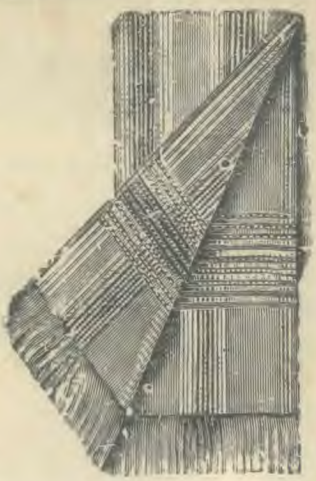

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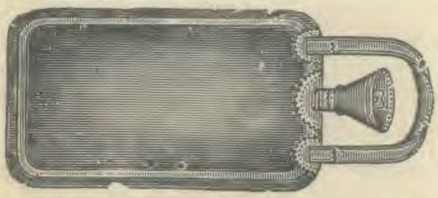

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