



Herald of Health

CONTENTS



Twenty Minutes Exercise Daily

What Some People Have Found in the
Out-of-Doors

The Energy Required for the Digestion of Food

Racial Hygiene and Vigour—Part II

We May Cure and Avoid Dyspepsia

Drunkenness Is a Crime

The Deadly House Fly

Oil, and Its Uses in the Tropics

Vol. 2

NOVEMBER, 1911

No. 11

ATTEN- TION!



THE SANITARIUM BATH AND TREATMENT ROOMS make no pretensions of being able to cure anything; but we do claim to have benefited those who have suffered with rheumatism and kindred diseases. We do not believe in blowing our own trumpet, neither do we depend on advertising for patronage. We simply give rational baths and treatments, which stand the test on their own intrinsic merits. Self-recommendation is no recommendation. Most of our patients come to us through recommendation of their friends who have benefited by coming here. That is the most convincing testimony.

75, PARK STREET,
CALCUTTA

Why Not?

Why not get the most good possible out of your rest in the hills? Assist nature in building up your system and preparing you for life on the plains. Come to Mussoorie, and while resting take a systematic course of treatments at the Mussoorie Bath and Treatment Rooms.

Baths of Every Description

Electricity in its Various Forms

Experienced attendants for ladies and gentlemen. Location Central. Rates Moderate. A few excellent rooms for rent also. For particulars, address.

MUSSOORIE BATH and
TREATMENT ROOMS
KIRKVILLE HOUSE, MUSSOORIE

The Oriental Watchman

An illustrated magazine, devoted to the spiritual interests of the family, month by month giving in its various departments, timely articles on religious topics, the health and well-being of the body, home life, young people's interests, current events and their meaning, and an Editorial Department in which subjects of vital interest are carefully and prayerfully presented. In these days of unbelief, a knowledge of the Word of God is a necessity. Yearly subscription, Rs. 2-6, post paid.

INTERNATIONAL TRACT
SOCIETY, Lucknow.

Herald of Health

Vol. 2

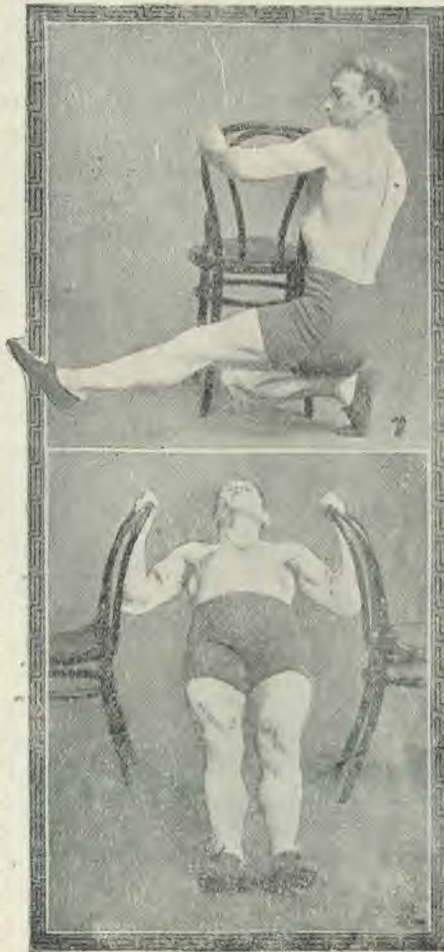
Lucknow, November, 1911

No. 11

Twenty Minutes Exercise Daily

NATURE knows no forgiveness for the transgressions of her laws, but avenges herself with mathematical certainty. This is the explanation for many of the conditions known as tropical diseases, which are such only in the sense that in the tropic conditions and habits exist which are most favourable for their development. Not the least among these conditions is the lack of sufficient daily exercise. The excuse usually offered for not exercising is a disinclination to do so or a lack of time. The object of this article is to emphasize the fact that twenty minutes devoted each day to thorough, systematic, and energetic exercise is sufficient to maintain the body in good condition. It will increase vital resistance against disease by equalizing the circulation, thus relieving the internal organs of stagnant congestion, enabling them to

perform their normal functions, which makes all the difference between health and disease. Judicious exercise is the surest safeguard against colds, congestion of the brain, lungs, liver, etc. The chest expands, providing for greater air capacity, and prevents tuberculosis. The increase of oxygen taken into the system, together with muscular activity, results in an increased oxidation and elimination of tissue poisons, the retention of which is responsible for many of the physical degenerations and unpleasant symptoms usually attributed to a tropical climate. Exercise is not only effective in preventing disease, but is also one of the most efficient means of overcoming many chronic disorders; as indigestion, torpidity of the liver and kidneys, insomnia, neurasthenia, constipation, and sexual disorders, also a hun-



THE CHAIR EXERCISE

dred other morbid conditions which are the direct result of lowered muscle tone. The diseased stomach is strengthened, and digestion improved.

But violent exercise should not be engaged in immediately after a full meal; as this hinders digestion by diverting in another direction the blood and nerve energy which are for the time required in the work of digestion.

The movements described and illustrated in this contribution, with perhaps five minutes more spent in taking a cold friction bath, will equip one with a fund of physical and mental energy sufficient to make the most arduous duties bearable.

Exercise I—For the Lower Body

The chair serves to steady the body. With right leg extended rigidly, bend left knee, then lower and raise body again and again; repeat until leg muscles tire. Exercise should be performed with each leg in turn, bearing weight of body for as many movements as possible.

Exercise II—For the Upper Body and Abdominal Region as Well as the Arms

Grasp the backs of two chairs, and with heels on the floor pull up the body as high as you can, then lower the body to arms length and pull up as often as possible without strain. It may be difficult to perform the movement at first without bending the knees, but the difficulty of the exercise will decrease with persistent practice.

There is little to be gained from the performance of exercises of this or any other kind, in a disinterested, half-hearted manner. Put into the exercises the best there is in you physically, and then you will in turn gain the best from them. The movements here depicted may seem difficult, perhaps almost impossible at first, but they are capable of performance by any man or woman of normal strength; and if one finds one's self unable to perform them at first, this is only an additional proof of one's need for just such exercise.

What Some People Have Found in the Out-of-Doors

GEORGE WHARTON JAMES

WHAT some have done others may do. "God is no respecter of persons," and what he gives to one he is ready to give to all. The fresh air, the sunlight, the sky, the stars, the clouds, the winds, the flowers, the odours, the colours,—*everything* of all that is in the open air is as much for one as another. An emperor or a king can get no more sunlight or air than I can, or you, or the poorest wretch that walks the earth. Hence let us get out into the open and claim all there is. It is our inheritance, our birthright, our God blessed gift.

But these physical things are only

the *secondary*, and not the primary and important, gifts that come to us from close contact with the great out-of-doors. There is a mental and spiritual freedom, a largeness of heart, of conception, of life, of expression, of act, of thought, of the whole and complete being, if one really and truly absorbs the spirit of the out-of-doors. Whatever there is in you is enlarged, increased, made more powerful and potent. A good lawyer is made a better lawyer by contact with the open; and so with a musician, a doctor, a judge, a teacher, a professor, a minister, an inventor, a mechanic, a schoolboy, a

schoolgirl, a housewife, a mother, a father. In every walk and relation of life God's great out-of-doors will benefit and bless you if you will simply open your heart and mind, and allow the goodness to flow in. And it is to point out a few striking examples that this particular paper is written.

Cromwell, Washington, Peter the Great, Gustavus Adolphus, and all great leaders of the people, have been, in greater or lesser measure, men of the out-of-doors. Lincoln was especially an out-of-door man. His boyhood was a boyhood of poverty, which compelled familiarity with the out of-doors. He split rails; he lived in a log cabin; his early life was spent in the simple labours of the farm out-of-doors, kissed by the sunlight and bathed and washed in the dews and winds of God. Some years ago I made a study of all Lincoln's written and spoken words. From the beginning to the end of his career the directness of the open air is in them, no subterfuge, no indirection, no uncertainty, no faltering. The tree never shapes itself to please its critics. It grows in accordance with the inherent laws of its nature, ever seeking heights above and spreading out as its inner self prompts it to do. Lincoln lived the same. Hence he was ready for his great task when a pilot was needed for the imperiled ship of state. If he had been uncertain in himself, uncertain where he wanted to guide the vessel, if he had not known (and I say it with reverence), as nearly as a man may know, as God knows, the American Union of States would be a thing of the past. Had he been a time-serving politician, an uncertain quantity, his "policies" would have wrecked the country. He had no *policies*. He had *principles* to which everything had to

bend, or break, and principles are best gained in contact, especially in early life, with God's great out-of-doors.

But it is not simply "great" men who find wonderful things in the out-of-doors. Take the ordinary, common men of mediocre talents, of every-day desires and accomplishments. Compare them with the like number of city men whose lives keep them confined indoors. Not only is there a great difference physically, but there is another, nay, there are many other differences. I do not refer, now, to those trampled-upon sons of toil, "chained to the wheel of labour," that led to Edwin Markham's indignant protest. Outdoors or indoors, when a man's whole mental and physical being is dwarfed and stunted by the pressure of incessant and arduous labor, he can not be compared to the ordinary free man. But go into the woods of the logger's camps; go to the mines; go to the grain ranches of California, and see the men on the monster headers, drawn over the wheat fields by thirty-six horses, heading, threshing, and sacking the grain at one operation; go to the camps of the cowboys; go to the homes of the California orchardists and study the men you find there. What do you see?—Health, strength, and vigour of body, and health, strength, and vigour of mind. These men *think*,—not think they think; they think their own thoughts, thoughts suggested in the great open, not swallowed (as men swallow a cup of hot coffee) from a newspaper and parrotted as a pretense of thought. Few city men of the more humble callings ever do any thinking; they don't know how to think. Life affords them no opportunity for it, and they lack the clarity of vision, the independence of judgment, the strength of conviction,

you find in the men of the open air.

When I see the cheap theatres, the concert halls, the vaudevilles, the moving-picture shows, the beer halls, the bowling-alleys, the "smokers," and the thousand and one other devices of the city to entertain and amuse the city-living man and woman, I imagine such people thrust out into God's great out-of-doors, as are the prospector, the cowboy, the miner, the sheep-herder,—away from all civilization, from books, from concerts, theatres, and extraneous amusements—and I ask myself what would become of them. They would die of ennui, of mental vacuity, in a month. Unable to entertain themselves, unable to find mental occupation, they would die of inertia and melancholia. But the out-of-door man, rough and uncouth though he be, finds in God's thoughts expressed in nature a thousand and one sources of interest and occupation that benefit and bless him.

The Indians had no books, no newspapers, no shows, no theatres, no concerts, no beer saloons, no dance halls,—nothing of those things that city men and women of to-day feel they can not live without. Yet they grew up healthy, sturdy, happy, and, as a rule, full of genuine character. So with the men and women of our own race who are children of the out-of-doors. They are able to find in nature sources of interest. If the children of the cities knew one-tenth part as much of the good things that surround them, as the Indian children know of the stars, the sky, the clouds, the storms, the snow, the tracks of the birds and animals, their habits and movements, the flowers, the trees, the reptiles, the animals of their surroundings, they would not need nickelodeons and moving-picture shows to occupy their minds.

The city clerk in a haberdasher's store, with perfumed hair and manicured nails, laughs at the awkwardness of the common plowman when he ventures to the city; but put the clerk in the plowman's place and how absurd he looks, and *actually is*. It takes both skill and strength to guide a plow and make a straight furrow; and to be an expert orchardist is no mean intellectual occupation.

What a wonderful result the study of God's thoughts in plant life has produced in the brain and heart of Luther Burbank! He has helped to change the food supply of the world, in fruits, nuts, and vegetables, as well as given to us scores of new and improved varieties of flowers. He has simply sought to know God's plans and methods of work, and then endeavoured to follow them. By so doing he has become one of the wonders of the world.

Thoreau, Izaak Walton, John Burroughs, John Muir, Mary Austin, and hosts of others have written classics, simply because they went out into God's great open, and took in what he there gave to them. Reader, isn't it worth while trying to do likewise? At least try it!

"THE statistics of the London and Berlin hospitals for sick animals show that 8 per cent. of the sick dogs are found to be suffering from cancer, and 7 per cent. of the cats. Among non-flesh-eating animals,—horses, cattle, sheep—the proportion is a small fraction of 1 per cent. The records of the London hospitals show a proportion of 12 per cent. of cancer cases among the sick received into their wards. It has recently been discovered that cancer is epidemic among the fish of some of the fish hatcheries of the U. S."

The Energy Required for the Digestion of Food

ABOUT ten per cent. of all the energy supplied to the body by food is expended in its digestion and assimilation. Of course there is a great difference between foodstuffs in the amount of energy required for digestion. The researches of Zuntz and others have shown that proteins require a far greater amount of energy for their digestion than do other food elements. Fats come next in order; and the carbohydrates, that is, starch, dextrine, etc., require least of all. When it is recalled that eight-tenths of all the energy of the body is required to maintain animal heat, leaving only two-tenths to be expended in work, the importance of this question of the amount of energy expended in digestion becomes apparent. Of the two-tenths of the energy represented in the food which is used by the body in actual work, one-half is spent in digestion and assimilation of the food under normal conditions. If, then, the amount of energy required for the digestion of the food is to any considerable degree increased, the amount of energy remaining for work is proportionately diminished.

For example, suppose the amount of energy required for digestion is increased one-half, the result will be that one-half of the ordinary amount of energy will be available for muscular and mental activity. This brings at once into plain view the damage to one's working ability which results from overeating, or gormandizing, either occasional or habitual, and from the eating of foods unnecessarily difficult of digestion. Tables compiled by Beaumont as the result of his experiments on Alexis St. Martin show at a glance how greatly the amount

of work required in the process of digestion may be influenced by the selection of the bill of fare. When, for example, one makes a meal of rice, and milk, the whole process of digestion is completed in a couple of hours; whereas a meal of roast goose or pork requires twice this amount of time for digestion, and doubtless twice the amount of digestive work, or even more. It is evident, then, that large eaters are living under a serious handicap. A large quantity of energy is wasted in unnecessary digestive work.

But there is still another phase of this question which is even more important than the waste of energy. The surplus food eaten is not utilized, but becomes a burden. If deposited as fat, it is simply a bad load, the carrying about of which requires a further waste of energy. In the case of proteins the situation is still worse; for every particle of protein which is not utilized in repair is converted into poisonous substances and is excreted, either in the form of urea, uric acid, or worse poisons. A considerable part of the waste protein undergoes putrefaction in the intestine, producing poisons of the most deadly character, such as skatol, indol, pyrrhol, and numerous other equally toxic substances. These poisons not only tax the energies of the vital organs in their elimination, but by their circulation throughout the body irritate and otherwise injure the delicate cells and fibres of the living structure and in time do irreparable damage through the hardening of the arteries and the setting up of degenerative processes of various sorts in the nerve centres, the heart, liver, kidneys, and other organs.

A skilful automobile driver takes care to keep consumption of gasoline down to the lowest point possible, not only as a matter of economy but as the essential means of getting the best performance from his machine. When an excess of gasoline it used is soon leaves a cloud of smoke behind it, and soot accumulates in its inner parts, so that the machinery becomes clogged and crippled. The combustion of gases fills it with soot from the imper-

fect combustion of the fuel. The very same thing happens to the body when an excess of foods is taken. Smoke is not visible, but it is really there. The products of incomplete exudation may be seen in the urine in the form of reddish or pinkish products and may be smelled in the breath and in the emanations from the body. The cause of the elimination of aromatic poisons is the incomplete combustion or burning of the food fuel.—*Good Health.*

Racial Hygiene and Vigour---Part II

WM. W. HASTINGS, PH. D.

IN the modern period of history there is space to note but two instances of racial vigour, the first that of a nation which has been rescued from physical decline by national legislation, by the establishment of a rational system of physical education—the German; the second, that of a people which has conserved its vitality through the reservation of natural instincts and habits of life—the English.

The German

The physical characteristics of the ancient Teuton stock have been set forth in our discussion of the Middle Ages. The Germans known to Tacitus were a very large, vigorous race, nomadic in habits, tillers of the soil, and herders of cattle (through their wives), and themselves given largely to hunting and making of war. They were noted for their courage, their honesty, love of truth and justice, and loyalty to woman and religion. The term German referring to them as a race is rather a flexible one and more difficult to define than almost any other. The tribes which were classed under this term varied at different periods from the beginning of the

Christian era to the beginning of the nineteenth century, but they were mainly Teutonic in origin with some admixture of Slavonic and Roman stock. The Germans appear in the sixteenth century among the ranks of the Teutonic nations to whom we owe the reformation with all its beneficent effects,—religious toleration, liberal government, intellectual progress, purification of morals, and industrial and material progress. To the courage and fearlessness of a German Luther is due the origin of the most potential world movement ever set on foot since the coming of the Christ himself. Is it not significant from a racial point of view that the revolt from Rome was made only by Teutonic nations?

But Germany had to pay dearly the price of liberty, religious and political. The religious struggles of Protestants and Romanists cost her more than one-half the population in one generation (1618-1648). At the beginning of the Thirty Year's War, the population of the country was thirty millions; when it ended, twelve millions; vast areas were without inhabitants, trade was ruined, many industries entirely destroyed, "the effect

upon the fine arts, upon science, learning, and morals was even more lamentable. Painting, sculpture, and architecture were driven out of the land. The cities which had been the home of all these arts lay in ruins. Poetry ceased to be cultivated, education was entirely neglected. For the lifetime of a generation men had been engaged in the business of war and had allowed their children to grow up in absolute ignorance. Moral law was forgotten. Vice, nourished by the licentious atmosphere of the camp, reigned supreme. God, worship, religion, became only a tradition. In character, in intelligence, and in morality the German people were set back two hundred years. To all these evils were added political disunion and weakness."

From such a setting it is easy to deduce the low physical plane of the German in the seventeenth century. He was not only without racial vigour, but without incentive to the attainment of such vigour. He had lost even the religious incentive to strong physical manhood inspired by Luther a century before. And for more than a century after there was not vitality enough in Germany, intellectual, moral, or physical, to raise up a man with an idea big enough to meet the demands of the times. Basedow, the father of philanthropinism and physical training in Germany began his work at Dessau in 1774.

With the reign of Frederick, began the real history of physical training in Germany under Basedow, the history of one of the forces which has, through Guts-muth, Jahn, and others, done more than any other to render Germany one of the leading nations of the world. In Germany we have a unique example of the restoration of

national vitality through national statutory physical education.

England

With the Saxon conquest, begins the real history of England. This race was powerful enough to impress upon the country permanently their own racial habits of life and thought, their love of liberty, and their physical ability to defend it. Says Montgomery, "They gave the foundations of a new nation, their speech and laws, their customs became permanent, and by them the Britain of the Celts and Romans was baptized with the name of England, which it has ever since retained." The conquerors were rough, ignorant, cruel, but they were fearless and determined. These qualities were worth a thousand times more to Britain than the gilded corruption of Rome. Jutes, Saxons, and Danes, who together were called Anglo-Saxons, laid the corner stone of the English nation. However much it has changed since through the Norman conquest and other influences, it remains, nevertheless, in its solid fundamental qualities, what these first people made it.

In the words of Montgomery, "they gave first, the language, simple, strong, direct and plain,—the familiar, everyday speech of the fireside and the street, the well known words of both the newspaper and the Bible.

"Next, they established the government in its main outlines as it still exists; that is, a king, a legislative body representing the people, and the germ, at least, of a judicial system embodying trial by jury.

"Last and best, they furnished the conservative patience, that calm, steady, persistent effort, that indomitable tenacity of purpose and cool, determined courage which have won

glorious battles on both sides of the Atlantic, and which in peace, as well as in war, are destined to win still greater victories in the future."

In no country has there been a better illustration of the law of national progress, "the conversion of natural liberties of man into clearly defined political rights" (Guizot), because nowhere has there been a more independent, self-respecting, industrious, clear-headed, and vigorous people than in old England. Their physical vigour and their sterling integrity of character have their roots alike in the ancient solid Teuton stock.

But racial stock deteriorates with the decline of wholesome racial habits. The Romans of the period of the Republic were to the ancient world what England is to-day, but they became content to live upon past fame, became strangers to the honour, the justice, and the physical prowess which won for them the world's supremacy. The Greeks also ruled the ancient world. They led in arts, science, and literature as long as they preserved purity of their early physical habits, as long as they obeyed the play instinct as a nation, as long as they believed in the all round idea of manhood. Of modern peoples, of modern Teutonic races even, there is none among whom games, sports, and amusements have been preserved as they have in England, no country which has a system of physical training so like that of the Greeks, a system in which athleticism predominates, a system which rules from childhood almost to the grave. (Proper amusements determine as well as reflect the character of a nation.) To the preservation of the primitive instincts of the people, to the development of inherent physical habits, England

owes her vigour, her national power.

The hope of the race to-day lies in allegiance to the doctrine of eugenics, and in the systematic development of racial vigour through the practice of hygienic habits, through the exaltation of the sacredness of the home and of marriage for the perpetuation of the race.

The hope of Teutonic peoples lies in cross breeding among themselves, Swede, Norwegian, German, English, and in preserving the vigour of the Teutonic stock. This stock is the hope of the world, and it dominates and should continue to dominate the world.

We need an aristocracy of blood, of rich red blood, not the aristocracy of blue blood, of nobles and kings, but the aristocracy of strength, of health, and of efficiency.

THE *London Globe* claims there are a great number of learned idiots in England. There may be some in other countries. We quote the paragraph referred to, which is as follows: "Some imbeciles are endowed with an excellent memory, and thus are enabled to acquire a great wealth of experience. But the intelligence of the imbecile being defective, the memory is all lop-sided. It works mechanically, without judgment or selection. The most significant trifles are treasured just like the most important facts. Owing to their marvelous memory, many superior idiots are not recognized as such in school, but, on the contrary, are considered to be very gifted pupils. The mistake occurs especially when they are good-natured and agreeable. A close examination shows that such talented idiots have learned everything like a photograph, and reproduce other people's thoughts, opinions, and judgments."

We May Cure and Avoid Dyspepsia

D. H. KRESS, M. D., MEDICAL SUPERINTENDENT WASHINGTON SANITARIUM,
TAKOMA PARK, D. C.

MAN lives not upon what he eats, but upon what he digests, or rather upon what he needs. It is safe to say two-thirds of the food consumed by the average civilized man would sustain him well; the remaining one-third is superfluous and serves to wear out the organs of digestion prematurely, and consequently shortens life. In some cases where the digestive organs are urged on by irritants, and more food is digested than is needed, for a time there may be a marked increase in weight from overfeeding. In other cases the organs of digestion are weakened and the excess remains undigested and becomes putrid. Emaciation is the result, and the poisons formed make life miserable. In either case premature death is the consequence.

Too great a variety of foods are often eaten. Dr. Parlow, by experiments upon dogs, has shown that to eat one or two foods at a meal is scientific eating. He discovered that the digestive organs of the animals secrete digestive juices that are especially adapted for the digestion of the food that is fed them. Meat, when fed, caused the secretion of a highly acid gastric juice especially adapted for its digestion. Breads produced a flow of gastric juice less acid but possessing increased digestive properties, while milk caused the secretion of gastric juice differing from both of the others and especially adapted for the digestion of milk.

Both nature and science teach that the digestive organs of man are capable of digesting well one or two simple foods, but when, as is often

the case, meat, potatoes, cabbage, milk, butter, puddings, and fruit are taken at the same meal, indigestion, fermentation, and auto-intoxication with its train of evils result.

We find that the healthiest, heartiest, and best-dispositioned men and women are found among those whose wants are easily supplied, not being greater than their needs, and who are content to live in a simple manner and upon simple foods. History furnishes evidences that among the healthiest and the strongest races of people, such luxuries as tea, meat, and even sugar, cheese, and butter are rarely if ever used. They derive their nutriment chiefly from grains, legumes, and fruits. These, we find, are the most nutritious as well as the cheapest foods.

The attention of the scientific world has recently been called to this extravagant waste of food in civilized lands. Professor Chittenden selected six brain workers made up of university professors and medical men, twenty men from the army, and eight athletes who were training and at their best. These were kept under careful supervision and training for a period of six months. Their consumption of food was reduced to one-half of what had formerly been thought necessary by physiologists to sustain life. At the beginning and at the end of the period, a careful test was made of their strength, to ascertain the improvement made during this period.

The practical results of those experiments show conclusively that the cost of house-keeping may be greatly re-

duced, and at the same time the health of the household materially improved.

Simplicity in diet should be encouraged. Among all creatures, aside from man, a simple diet is the rule. The horse, for instance, is content with his simple meal of nature-seasoned oats, and knows no drink aside from water. I have sometimes thought if civilized men exercised more horse-sense there would be as few dyspeptics and as little disease and misery among men as there are among horses.

Of all creatures, man alone finds it necessary to drink with his meals. The free use of liquids at meals is wholly unnatural. Nature designs that the food should be moistened with that important fluid and digestive agent—saliva—and not with other liquids.

Hasty eating and drinking at meals call for artificial seasoning and are responsible for overeating. Men do not masticate their food sufficiently, and do not allow it sufficient time in contact with the nerves of taste, which are located in the mouth, to derive satisfaction from its delicate and natural flavours; as a consequence pronounced artificial flavours must be added, which will give an immediate twist to the palate. This accounts for the free use of pepper, the free use of salt and sugar and other dietetic evils. Foods eaten hurriedly and without thorough mastication may create a fullness, but they do not satisfy, and overeating and dyspepsia with its train of evils is the sure result.

The dyspeptic is sick or miserable because he suffers from self-poisoning. Dangerous bacteria may be found present in his alimentary tract in great number. By the action of these upon the excess of food stuffs, deadly pro-

ducts are formed which poison and defile the stream of life, and make him what he is.

It is universally recognized among the leading medical authorities of to-day that arteriosclerosis, rheumatism, gout, Bright's disease, diabetes, catarrhal difficulties, neuritis, neuralgia, neurasthenia, hysteria, melancholia, insomnia, impatience, irritability, despondency, and many other distressing and unwelcome symptoms afflicting mankind, are due chiefly to the absorption of poisons from the alimentary canal, and that these poisons are formed as a result of putrefactive and fermentative processes brought about by the action of various micro-organisms, or germs, upon the excess of food elements present. This is abnormal. The normal alimentary tract is provided with more or less efficient methods of defence against bacterial growth and putrefaction. The normal secretion of saliva and gastric juice is either actually destructive to, or acts as an effective check upon, the growth of bacteria that may find their way into the alimentary canal with the food. A normal secretion of saliva and gastric juice and excessive amount of food favour the growth of bacteria, and the consequent intestinal infection. The dilution of these digestive juices with liquids still further lessens their power of disinfection, and still further favours putrefaction and fermentation.

Bouchard, the famous French scientist and doctor, has clearly shown that most of the diseases affecting mankind are the result of self-poisoning, and have their origin in the alimentary canal. Some of the poisons formed are extremely deadly, and in many cases have caused almost instant death.

D. Van Somerans and Mr. Horacer

Fletcher have demonstrated before leading physiologists of the world that by eating simple foods and by thorough mastication, fermentative and putrefactive changes in the alimentary canal may be entirely avoided, and that the alimentary canal is capable of keeping itself practically free from germ life providing dietetic errors are avoided. From the experiments of these men we are forced to the conclusion that the fault lies not in man's construction, but in man's departure from the simple food designed for him.

There are certain foods especially, which favour the growth of the more dangerous bacteria; these are the highly nitrogenous foods and animal fats. At the head of such foods we have meats and fish. Hufeland, the eminent German physiologist of a century ago, recognized this. He said, "Animal food is more liable to undergo putrefactive changes, while substances of the vegetable kingdom contain acid principles that retard our mortal enemy—putrefaction." Cheese is not a suitable food for man, it is difficult to digest, it always contains bacteria in large numbers, and aside from this it is itself a product of putrefaction.

Butter should be used sparingly; as it also retards digestion and favours the cultivation of bacteria.

The aim in dieting should be to make the intestinal culture media as unfavourable as possible for the existence and propagation of germs, or to secure as far as possible an aseptic or sterile condition of the alimentary tract. The foods which are best suited to bring this about are the well-baked or dextrinized starchy foods, fresh fruits, and the moderate use of nuts, peas, beans, and dhal. Eggs may also be used sparingly.

Care must be exercised in the combination of even wholesome foods. Vegetables and fruits should not be eaten at the same meal. Milk and sugar combine poorly.

If beans and peas disagree, remove the skins. If fruits disagree, reject the indigestible part after swallowing the juice.

The dyspeptic must, contrary to his natural feelings, cultivate a hopeful disposition, remembering that a merry heart not only makes a cheerful countenance, but it exerts the same beneficent influence on the organs of digestion and every gland in the body—it "doeth good like a medicine."

Drunkenness Is a Crime

S. HENRY.

FROM history we learn that the masses imitate the example set by those in authority over them. By placing none but sober, honest, competent men in positions of authority, trust, and honour we should practically say to young men: "You see what kind of characters you must form if you would secure the confidence and respect of your fellow men." This kind of teaching will count.

Years ago it was the custom in India for mothers to cast their children into the Ganges as an act of worship. As was her duty, England stopped this barbarous practice. There are thousands upon thousands of parents who starve their children to death by spending for intoxicants the money needed to supply their children with bread. Unquestionably it is the duty of the state to protect the lives of these help-

less little ones, "who with wan cheeks and sunken eyes are at this moment stretching forth their tiny, bony hands, piteously imploring the state to come to their rescue before they shall be sacrificed on the altar of their parent's unhallowed appetites?" I know the task is a herculean one, but it can be done and *must* be done.

There are thousands of men who day and night are robbing the wives which they solemnly swore to love, cherish, and protect as long as they both should live, and no effort is made to protect these wives. Were a drunkard to rob and abuse any other woman as he robs and mistreats his wife the state would bring the culprit to justice. How long, O ye sons of men, will we cling to that barbarism, which has been handed down to us through a hundred generations, that barbarism

which deemed the wife a slave who had no rights which her husband, her lord and master, was bound to respect? It is a *greater* crime for a man to rob or mistreat his wife than to rob or mistreat another woman.

Whenever and wherever necessary the state should appoint a conservator to take charge of the property and earnings of the man who is spending for liquor the money needed to supply his family with the necessaries of life and hold them for one year. If the man whose property and earnings are in the hands of a conservator shall refuse to work, give him nothing to eat until he shall be glad to work.

Treat the drunkard and his accomplice as they ought to be treated; then men will live sober lives, and saloons will be few and far between. *No man will then pay for the privilege of selling intoxicants.*

The Deadly House Fly

THE total time required for a single generation—from eggs to adult—is ten days, and in this climate at least twelve or fifteen generations in the course of a summer. As each female lays from five hundred to one thousand eggs in the course of a season, her descendants—should they all live—would run up into figures beyond comprehension of the human mind—many billions of billions!

The favourite nesting place of the fly is in all forms of decaying animal or vegetable matter. After the eggs have hatched into maggots, these feed upon surrounding organic matter, growing rapidly, and finally reach the "resting" or "pupa" stage, from which bursts forth the perfect, full-grown, and fully developed fly. Instantly upon emerging, the fly seeks food, and all things organic are "grist to his mill."

Alighting, perhaps, upon a heap of foul decaying matter for his first meal, he will feast there for a while, besmearing his mouth parts, legs, and abdomen with thousands of germs, and then fly to the nearest dinner table, spreading there germs with perfect impartiality, on sugar, bread, meat, butter, and milk.

Again: in addition to the bacteria left by legs, mouth, and body, he deposits his own intestinal excreta, in the form of a fly-speck, literally teeming with all sorts of contagion.

The number of germs upon the bodies of individual flies has been the subject of continual research by many scientists, and vary greatly. A nice, foppish fly—select in his menu—may carry around with him only two thousand or three thousand bacteria, but the average of four hundred fourteen flies examined by Esten and Mason last

year was 1,222,570 a fly—the highest being six million six hundred thousand on one individual.

Milk is an ideal breeding place for all sorts of bacteria, especially if not refrigerated. One fly, covered with typhoid germs, falling into a dairy can of warm milk could develop, by the time the milk is delivered to consumers—say six hours—sufficient typhoid germs to infect one hundred families. Such cases are of record.

The following recommendations are called from bulletins of the Chicago board of health, and are respectfully submitted:—

“Don't allow flies in your house.

“Don't permit them near your food, especially milk.

“Don't eat where flies have access to the food.

“Flies are the most dangerous insects known to man. Flies are the filthiest of all vermin. They are hatched in filth, live in filth, and carry filth along with them. Flies are known to be carriers of death-dealing disease germs. They leave some of these germs wherever they alight.

“Screen your windows and doors. Do it early, before fly time, and keep screens up until snow falls. Screen the baby's bed and keep flies away from the baby's bottle, the baby's food, and the baby's ‘comforter.’ Keep flies away from the sick, especially those ill with typhoid fever, scarlet fever, diphtheria, and tuberculosis. Screen the patient's bed. Kill every fly that enters the sick-room. Immediately disinfect and dispose of all the discharges.

“Use liquid poisons, sticky fly-paper, and traps.

“Place either of these fly-poisons in shallow dishes throughout the house:—

“(a) Two teaspoonfuls of formaldehyde to a pint of water.

“(b) One dram of bichromate of potash dissolved in two ounces of water sweetened with plenty of sugar.

“To quickly clear rooms of flies, burn phrethrum powder or blow powdered black flag into the air of the room with a powder blower. This causes the flies to fall to the floor in a stunned condition. They must be gathered up and destroyed.

“Sprinkle chloride of lime or kerosene over contents of privy vaults or garbage boxes. Keep garbage receptacles tightly covered, and clean them every day.

“Sprinkle chloride of lime over manure piles and other refuse. Keep manure screened if possible. It should be removed at least once a week.

“Pour kerosene into the drains.

“Clean cuspidors every day. Keep a five per-cent. solution of carbolic acid in them. Don't allow dirt to accumulate in corners, behind doors, back of radiators, under stoves, etc. Allow no decaying matter of any sort to accumulate on or near your premises.”—*Selected.*

DR. SEEBOHM ROWNTREE, author of “Poverty, A Study of Town Life” has made a study of the people of York, as a result of which he says: “I found that while 58.45 per cent. of the total food expenditure was for animal food, this only provided 30.3 per cent. of the protein of the dietary, and 33.36 per cent. of the total energy value. On the other hand, the 35 per cent. of total food expenditure devoted to vegetable foods yielded 60.45 per cent. of the total protein, and 66.48 per cent. of the total energy value represented by the diet.” In other words, animal food-stuffs cost twice as much as vegetable.”

Oil, and Its Uses in the Tropics

A. CURRON

FOR every extreme climatic condition, nature seems to have provided some protection or anti-dote. There are wells in the sandy deserts, there are running streams in the rocky ridges, and cooling shades in the wild tropics. The law of cause and effect everywhere apparent in the workings of nature, is, fortunately, not unattended by some remedial agent. While it is true that in Nature there is no forgiveness, it is also a fact that she continually dispenses liberally the best of remedies,—there is a continual giving out of her best. Of what more potent factors can we avail ourselves than those that are natural; as heat and cold, light and darkness, food and drink?

In the tropics there is a most abundant provision in native foods of fine oil substances. This is not merely incidental; it is evidently designed. It is a means to an end; and is a striking evidence of the beneficent care and forethought of the Creator.

While in most of the tropical islands the temperature seldom exceeds one hundred degrees, there is an intensity and pressure in the atmosphere—because of the moisture—which has an overpowering effect on the nervous system, and occasions much depression. Because of this, the tendency is everywhere noticeable to take things easily, and to avoid hurry. It is wise to do so; but the mistake in connection with it, made so often by Europeans, is that there is no diminishing of the quantity of food. It is just as imperative to take less food as it is to take more rest. Were this fact recognized, there would be much less reason for the "running down" of the nervous system.

As remarked before, there is a bountiful supply of vegetable oils in tropical foods, and this is not without purpose. When taken in the form supplied by nature, these fats have a most beneficial effect. There are varieties of nuts, as the cocoanut, which contain from thirty to forty per cent. of oil substance, while such vegetables as yams contain about the same proportion as our grain foods. When taken in their natural state, these are highly nutritious and readily digested. Foods fried or roasted, and thus soaked in their own as well as added fats, are a poor attempt to supply the demands of the system for this element, and are responsible for a variety of distressing stomach disturbances and liver ailments, and the retinue of quack medicines that follow as remedies.

The diet of the native in the tropics is very simple; and well for him is it that this is so. He knows nothing of complicated foods and mixed dishes.

This supply of fats in a finely emulsified state is a bulwark of health to the natives. It supplies the system with a fine lubricant such as no art of man can successfully imitate. Its use lessens friction in the body, and thus prevents too great a production of heat. Instead of being a clog, as when used artificially, it assists the motions of the living machinery, and produces harmony of action throughout.

Moreover, the natives have not been slow to recognize its use in a free, separated form. It is a well known custom among all races in tropical climes to smear the whole body frequently with oil made from vegetable substances. It is not merely that it

gives a shining appearance to his skin that he thus uses it, but because of the cooling and exhilarating effect it has. Oil, when applied to the skin, has a most pleasant effect, and renders it delightfully supple. It has another use. The climate demands that the body be free from all restrictions of clothing. The lighter and the fewer the garments worn, the happier is the individual. A sulu wrapped around his hips suits him better than the most fashionable cut. No sooner is he free from society, than he rejects every atom of surplus clothing for an Eve's apron. Partly nude and exposed to the rays of the sun, he has need of something to protect the skin. Coconut or some other nut oil meets this need admirably. The sun's rays are reflected off, and he is thus saved from a severe scorching. So intense is the heat of the sun, that a white man finds it absolutely necessary to apply oil freely to every exposed portion of his body. If he does so sparingly, he will repent freely. While the natives are in much need of teaching, there is much that we can profit by to be learned from their simple habits.

Two very noticeable results attend the use of oil when used externally and as a food. In the latter use, there is a marked absence of that common scourge of modern times—constipation. So far, the writer has been unable to detect it where the natives are living in their simplicity. For some years I had been convinced that the use of fats in the form prepared by nature—as found in the edible nuts—would serve as a remedy for this distressing complaint. Opportunity was lacking to test the conviction; but since locating in the tropics, I am more than satisfied with the

results, being wholly freed from that distressing malady.

The second marked result of the external use of oil is the prevention of colds. The natives when out are always exposed to heavy tropical showers, and subject to every change of weather; yet they rarely suffer from cold.

Diseases of the skin and scalp, and torpidity in general, would diminish considerably were oil introduced with the daily food, and used more frequently in conjunction with the bath.

The well-developed limbs, fine general physique, and freedom from the many common and distressing ailments which cluster around us as the fruits of our civilization, make one envious of these simple folk, and force, unwillingly, the acknowledgment that, after all, our civilization, which has done much to cultivate the arts and sciences and to supply us with many conveniences, has failed miserably in that it has left us in a weakened and physically degenerated state, a sad contrast, indeed, with our boasted enlightenment.

“THE Health Committee of the Paddington Borough Council, London, has recommended for adoption the following by-law to apply to tenement houses: ‘It shall be compulsory for all windows of sleeping apartments to be opened wide at least two hours a day, and for floors to be swept once a day and washed once a week.’ It is suggested that inspectors be appointed and given right of entry into houses to see that the regulation is observed.”

“SANDOWNA, the Bavarian strong woman was asked as to the best exercise for women. She replied as follows: ‘Work! And a washboard is better than dumbbells; I have tried both.’”

Herald of Health,

PUBLISHED MONTHLY BY

International Tract Society,

19, Banks Road, Lucknow

H. C. Menkel, M. D., - Editor

Subscription, Post Free, - - - Re. 1-8

REGISTERED, - - - No. A. 457

PHILADELPHIA MILK EXHIBIT

IN May there was opened in Philadelphia an extensive milk exhibit for the purpose of demonstrating the best methods of production, transportation, and distribution of milk.

ANTI-TUBERCULOSIS IN HOLLAND

IN Holland the wise policy has been adopted of appropriating a liberal amount of money yearly to defray the expenses of the Society for the Prevention of Tuberculosis.

LOCAL OPTION IN NEW ZEALAND

EVERY election district is a local option district, and every election day (once in three years) the voters decide whether they want liquor within their district. There are now twelve no-license districts, six being gained at the last election.

GREAT BRITAIN'S DRINK BILL FOR 1910

THE estimated expenditure for alcoholic drinks in the United Kingdom in 1910 was £157,604,658, an increase of £2,422,173, over the previous year. There was an actual decrease in the number of gallons of spirits used, but an increase in the number of gallons of wine and of the number of barrels of beer.

BRITISH FRESH-AIR FUND

THE Fresh-Air Fund sends poor children from London and all the large towns of Great Britain into the country for a day at a cost of nine annas each, and for two weeks at a cost of Rs. 8-12 each. Since its inauguration in 1892, at least 2,500,000 children have had a day's outing, and 12,000 children have had a two weeks' outing. It is estimated that Rs. 180,000 will be required for this year's work.

EDISON AND VEGETARIANISM

THE New York *American* says: "Thomas A. Edison has become a convert to a form of vegetarianism. He went to his Southern home at Fort Myers, Florida, to recuperate from the serious operations for mastoiditis performed in this city some weeks ago, and there he took up the study of dieting. 'I have come to the conclusion that nearly all the serious diseases of the stomach are the result of overloading the digestive organs,' said Mr. Edison yesterday. 'We are afflicted with them because we do not exercise enough care in the matter of foods, and proper diet is the solution of good health in many respects.' In the diet that he has adopted for his own case, Mr. Edison has almost entirely eliminated meats. He has all the enthusiasm of a new convert in living up to the theory of dieting and in teaching its advantages."

BIRTH-RATE IN FRANCE

IN 1859 there were 1,018,000 births in France; in 1862, 984,000; in 1887, 899,000; in 1910, less than 775,000. The excess of births over deaths in 1910 was only 70,581. In Germany the excess was 884,061, or more than the total births in France. This falling off in the birth-rate is making French statesmen wince.

BOY SCOUTS

THE playground workers in Buffalo, Chicago, Philadelphia, and other cities arrange for tramps or for summer camps to take boys and girls away from the city during the summer. The Boy Scout movement has done much to stimulate this country-outing work.

DEATH FROM ICE-CREAM

A TWO-YEAR-OLD child in Yonkers, N. Y., died suddenly after having eaten an ice-cream sandwich purchased from a street vender. Two companions, aged five and six, were taken to the hospital to be treated for ptomaine poisoning.

SOCIAL CONDITIONS CHANGING

AT one time one could not drink to the health of the king or queen with anything but liquor; now one can take water. Thus one social temptation after another yields to the onward temperance movement.

House We Live In

EVERYBODY knows about the building and furnishing of a house, so Mrs. Vesta J. Farnsworth uses one to help show the children how their bodies are made, and how to care for them. To add to the interest of the study, it is given in the words of a mother to her four children,—Elmer, Percy, Amy, and Helen.

Each chapter has an engraved heading which makes the lesson easy to remember. For instance: The heading of the chapter on the nerves and their work pictures a modern telephone system.

Some of the other chapters are as follows:—

Walls of the House	...	...	Muscles
Weather-Boards and Roofing	...	...	The Skin
Cupola	...	...	The Head
The Kitchen	...	...	The Stomach
Pumping Plant	...	...	Heart
Bath-Room	...	...	The Lungs
The Windows	...	...	The Eyes
A Good Servant	...	...	The Tongue
A Faithful Watchman	...	...	Sense of Smell
A Gentle Nurse	...	...	Sleep
A Wicked Thief	...	...	Tobacco
A Cruel Murderer	...	...	Alcohol

It is just the book a mother will be glad to read to the younger children, and place in the hands of the older ones to read for themselves. It explains why it isn't best to eat between meals, to eat much rich food at any time, to swallow food before it is well chewed, etc., why tobacco and alcohol are thieves and murderers, why the tongue is a good servant but a hard master, and why the body-house should be carefully cared for.

218 pages, fully illustrated, bound in cloth, Rs. 3- 8-

International Tract Society,

19, Banks Road, Lucknow.

THE IDEAL FOOD

You may have tried one or two of the Sanitarium Health Food Coy.'s Foods, which are the original Health Foods; or they may be practically unknown to you. In either case we invite you to become better acquainted with these scientifically prepared yet natural foods. To enable you to do this the more easily we have produced the

NEW S. H. F. Co. PRICE LIST

This Price List is no ordinary catalogue; it bristles with information, and is printed and bound in such a style as to merit a permanent place in your home. Sent free.

Sanitarium Health Food Co.,

75, Park Street, Calcutta.

"Christ's Object Lessons"

By Mrs. E. G. White. "Rightly understood, nature speaks of her Creator." This volume contains the thirty-two parables of the Master. They are given in their natural and logical order, and are treated in the author's usual clear and impressive style. The work contains a beautiful frontispiece, "The Mirror of Divinity," preface, table of contents, list of illustrations, scriptural and general indexes, 486 pages. All the illustrations were prepared expressly for this book by our special New York artist. The volume is handsomely and substantially bound in cloth, embossed in red and gold, with symbolic cover design of the mountain lilies of Palestine. Price Rs. 4.

International Tract Society,

19, Banks Road, Lucknow.