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EDITORIAL

Science, Superstitions and Customs

WE are living, to-day, in an age of Science. Science is said to be universal truth, established by savants after laborious experiments and keen observations. It was only during the past 50 years that Science had made rapid strides and it has since bestowed on mankind immeasurable benefits in the shape of Radios, Wireless etc. Science is also capable of doing incalculable harm through poison gas, chemicals &c. in warfare and the world is now witnessing the horrors of such a war. Medical Science, with which we are intimately connected, deals with the prevention and cure of diseases. "Medicine in the early days was a hodge-podge of philosophy, religion, alchemy, witch-craft, magic and sorcery". In India, however, Ayurveda, the science of Medicine, was in vogue from time immemorial. It deals with various diseases and their treatment. Surgery was also

practised for a long time in this country. Along with the treatment of diseases by herbs and drugs, there were also practised sorcery and witchcraft. The Hindus believed in the possession of the devils but the devils, came to be associated only with mental afflictions such as hysteria, insanity etc. The medical science has travelled from India to Europe through Arabia, Egypt, Persia, Turkey, Spain, Greece and Rome. Medical Science is a progressive Science and new discoveries are being made from time to time supplanting the old. Thus, for instance, *Air* was at one time considered the chief culprit in the causation of all diseases, especially Malaria. The word 'Malaria' is derived from Mal-air (poisonous gas), விஷஜாம் as Ayurvedic doctors would call it. Then followed the *germ theory*. "It was thought when they (the microbes) were first discovered that the minute

organisms that produced fever and ague, chills and fever etc. were members of the vegetable kingdom and one physician called them 'the ague plant' but they have since been relegated to the animal kingdom. If, therefore, the fresh ploughed ground owes its odour to the presence of minute organisms, we already have this additional suggestion that perhaps disagreeable smells arising from decomposing substances may in all cases be due to bacteria. The earth at certain seasons swarms with them" —(Dr. Foote M.D., Home Cyclopaedia of Popular Medical and Sexual Science, 4th Edition, 1906). Recently, Sir Ronald Ross discovered that the malarial parasites which have since then been demonstrated as animal in origin by Laveran were carried to man through mosquitoes. The disastrous epidemic of Malaria in Ceylon some years back, has given rise to the re-opening of the old theory that noxious gas from newly ploughed earth caused that epidemic, when the season was favourable. This, however lacks scientific confirmation. Taking another disease, small-pox, the Hindus knew of vaccination as a preventive of that disease. Here is an extract from 'The Short History of Aryan Medical Science by His Highness Sir Bhagawat Singhjee, M.D., F.R.C.P.E., Thakore Saheb of Gondal:—"Inoculation for Small-pox seems to have been known to the Hindus from a very early age. Long before Edward Jenner was born, certain classes in

India, especially cow-herds, shepherds, charanas and the like had been in the habit of collecting and preserving the dry seeds of the pustules. A little of this they used to place on the fore-arm and puncture the skin with a needle. In consequence of this inoculation, the classes are supposed to have enjoyed a certain amount of immunity from small-pox. Vaccination was known to a physician Dhanwantri who flourished before Hippocrates". Thus, Jenner's discovery was only a re-discovery and there was nothing original about it. Another disease, plague,

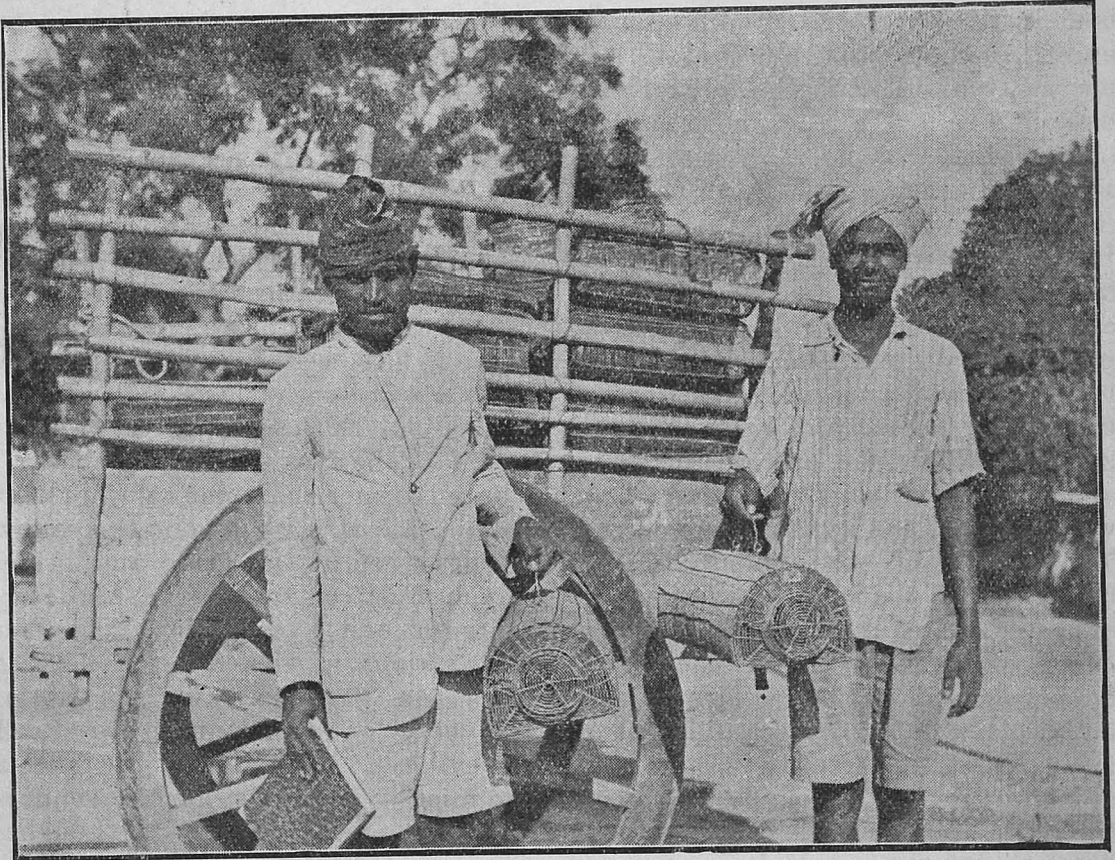


Goddess of Plague—Mahammari—riding on a rat, claiming human victims. This was the old Hindu conception.

was known to the Hindus as being spread by rats. The Hindu Sastras have described the dissemination of plague in these terms:—"The Goddess (Mahammari—the diety presiding over plague) said:—"On the order of Brahma, myself, Indra and other gods will visit the people of various villages. Thus visiting village after village and putting to death, all the wicked people, will at last go to Brahma. Intelligent people understanding my approach, will always do virtuous actions, will study the Sastras and will ever be very careful.

On the moment, the rats fall from the roof above, jump about and die, they will at once leave their houses with their friends and relations and will go to a plain (*vana*). There they will do all rites, will utter Mahamarika Mantrams and will recite stothrams. After some days, if crows come and sit on their temporary dwellings, they will start to their original homes after performing *kaka santhi*".

resistance to diseases is acquired through nutritious diet. Therefore, it follows, that good nutrition means good health, long life and immunity from diseases. This however is no new theory. The sage Bhrigu, was at one time interrogated by his disciples thus: "Why should death overtake men, especially when they are well-versed in the Vedas and practise all the rituals prescribed therein? To



Catching and killing rats in plague infected localities as a means of preventing the spread of plague. The above picture shows how rats are being caught in Mysore city to rid the city of rats, thus preventing plague infection through them. This is the modern scientific theory and method to prevent plague.

The germ theory is now being slowly discarded and is replaced by what is called the *Nutrition theory*. The mere fact that when an individual is attacked with an infectious disease, all his contacts do not catch the disease, goes to show that there is something in those contacts which resists the infection. This power of

which, the sage answered: "*Death overtakes them because of the faulty food they partake*". Thus, we see that the latest scientific theory is in consonance with the oldest Hindu doctrine. We cited these instances merely to point out that science knows no barriers of age, caste, creed, colour or territorial boundaries, that

it is universal and that we must follow the dictates of science, with a view to preserve our health and obtain freedom from disease.

Let us next take up superstitions. The evil eye of which we have read so much recently in the Press, is an ancient superstition—perhaps as ancient as the race. It runs as an unbroken thread through the folk-lore of the oriental and occidental peoples and has been handed on to us. There is a saying among the Hindus that an evil eye can split even a rock into pieces. Generally, the individual with but one eye has always been looked upon with suspicion. Protective amulets are worn to ward off the evil influence. Every baby born in a Hindu home will have this amulet as his or her first ornament. Turmeric also plays an important part in the prevention of evil eye. A pinch of turmeric and a small quantity of chunam are dissolved in water and kept always by the side of the baby and poured in the street after dusk, when visitors are no longer expected. The red colour—the colour of the blood, which the solution presents, is expected to counteract the harmful effects of the evil eye. A black unguentum is used for the children's eyes and a black dot or 'tilakam' is put on their faces, to give them an ugly appearance. At the time of marriage the bride and the bridegroom have to don only clothes soaked in turmeric solution, but with no lime or chunam added to it. They will also have to use the black unguentum for their eyes. All this is meant to ward off the evil eye. There is, however, a scientific background for this custom. Turmeric is a good germicide. Turmeric powder is largely used in curry powder and taken internally. Turmeric is aromatic, tonic and carminative. Women—especially Hindu women, used to smear their bodies with turmeric paste, while bathing, though, this custom is

fast disappearing now-a-days. About the various colours and their qualities, there was an interesting experiment made in 1930, by a firm in England, regarding the use of coloured glasses for windows for preventing flies. It was found that "everything else being equal, the house-fly prefers white light to coloured light and that red and yellow are the best deterrents. Blue and green are not nearly so effective. The loss in illumination with red glass being too great for general use, it appears that yellow is the best. Although it cannot be claimed that the use of yellow glass is an absolute preventive, it is a very effective deterrent and valuable for use in connection with the storage of food. We do not suggest the use of yellow glass for any building in which people are continually employed because it has been found that yellow light is bad for the eyes and general health". Mark the words "yellow light is bad for the eyes and general health". The red turmeric *cum* lime solution kept by the side of the baby and the yellow clothes worn by the bride and bridegroom must certainly serve as deterrents for evil eyes which may cast their jealous or wicked looks on those innocents. This explains the use of the yellow or red colour to ward off the evil eye. After all, the eye reflects the mind. A jealous look engenders wicked thoughts and wicked thoughts concentrated and transmitted, spell disaster on the person concerned. In these days of telegraphy, telephony, television and telepathy, there is nothing strange in a wicked mind which cannot brook prosperity in another, doing havoc to him and completely ruining him, his eye being the inciter of this wicked deed. Evil eyes are thus no superstition but scientific truth.

"The mind creates and the mind destroys. The mind makes rich and the mind makes poor, the mind transforms the earth into hells and heavens".

(To be continued.)

ARMING AGAINST DISEASE INOCULATION

BY G. RAMAN PILLAI, M.B., CH.B., (EDIN.),

Trivandrum.

ARE we to prevent disease, or merely submit the issue into the hands of chance or fate? That is the question. To submit would be to suffer—perchance to succumb! Who would prefer the pangs and perils of unrestrained infections, working havoc upon our vital organs and on society, to the security and assurance of health obtainable by arming ourselves beforehand against microbic invasion? To resist when it is in our power to do so would leave the initiative in our hands, that is in some little measure the control of our destiny. Is it not wiser then to take up arms against a host of microbes, our natural enemies and by opposing, end them? Is it not advisable to be fore-armed and prevent invasion rather than hope to fight it after it has established itself in force? The typhoid germs breeding at large around our ever-crowding homes and cities, for example, reduce our chances of shaking off the infection day by day. The ideal of sanitation is not yet within our grasp. There remains, therefore, the only alternative of prevention through the developing of self-defence in the individual, by raising his resistance or immunity to disease. This can be secured by inoculation or vaccination against the specific infections, such as, cholera, small-pox, typhoid or plague, that carry off most of our brethren.

Inoculation against disease is an insurance against certain of the cruel strokes of outrageous fortune; and prevention of avoidable afflictions

gives to life the hope and the relish necessary to strive for a goal or objective with the promise of comfort and happiness, that is denied to the

mere fatalist resigning himself to the supine indifference inseparable from an uncertain future that we cannot or dare not shape to our liking. The hygienist in India has to face a cross-fire, between rampant infections on the one hand, and deep-rooted and ingrained fatalism on the other. He has therefore to repel popular fallacies, undeterred by the odds ranged against him. The principle of preventive inoculation once understood, would, one feels convinced, find easy acceptance by every rational being, without the need for compulsion, the last resort of the community.

Life is a Siege by Disease-Germs.—Our bodies are in a perpetual state of siege every moment of our lives. It is a struggle of which we in health are fortunately not conscious, Nature having endowed us with some degree of immunity from disease through the agency of certain fighting cells and their products. Germs endeavour continually to effect entrance into, and take possession of our bodies. Epidemics arise when the besiegers are virulent, widely distributed, and enormously reinforced—our system of limited natural self-defence having broken down and failed to keep the overwhelming enemy at bay. For this reason we adopt emergency measures, (as mass inoculations of peoples) to strengthen the resistance, of the community, as of the individual, by actively mobilising our inherent individual resources. Thanks to our constitution, the ordinary (professional) fighting cells of our body

can, at a pinch, be reinforced by recruitment from among the tissues occupied usually with other functions. And inoculation is simply a method by which this recruitment is expedited—perhaps a compulsory enlistment of a conscript army, when the ordinary ‘police’ force and the ‘standing army’ are found inadequate for the emergency. A conscript state where the civilians are trained to fight if need be, is much less liable to be attacked than a state that is not so prepared. The kingdom may be lost by the neglect to train its citizens for defence in case of aggression.

Inoculation initiates Nature. —

We are in health as long as we are immune to disease. Our body cells show some fighting spirit in ordinary life; but they are unprepared for an encounter with numbers of germs disseminated from sick patients, through their breath and other discharges. Fortunately for us, these cells can be educated or trained to offer effective opposition as occasion may require, just as people from civil life are drilled for military service and sent about their daily civilian duties, to be available at call, as reserves in case of emergencies. The fighting spirit can only be acquired or induced by exercise of opposition. The boxer develops resistance by being boxed by his opponent. It is opposition that provokes and trains up resistance. Our tissues (cells) similarly learn to repel the typhoid germ by being trained to buffet against this germ itself. Inoculation against typhoid consists in introducing into our body a few dead typhoid germs that put our cells on their mettle and render them efficient to face the living organisms themselves. The germs used (known as ‘vaccines’) are absolutely dead, and cannot produce infection, while they remarkably provoke active opposition and resistance from the entire army of body cells now thoroughly awakened instead of

from the policing cells alone. The leaven of the vaccine stimulates, as it were, the formation of gymnasia or drill-halls in various organs where the art of self-defence is quickly developed. This discovery of science has saved millions of lives in epidemics, and is so far the method of choice in the prevention of typhoid fever among large bodies of peoples. Some of the other infections are also similarly prevented by inoculating ourselves with the dead bodies of the correspondings germs. It seems necessary to create a scare to drive the quiescent cells into lively activity in order to save them from death.

Indeed we acquire our natural immunity in many cases by unperceived inoculations going on in our bodies. The child that contracts ‘eczema’ does not infect the mother easily, because the mother’s tissues have long been trained to resist the germs that the child has yet to learn to fight down.

The very recovery from a disease depends on the ultimate conquest of the invading microbes by the body cells that have managed to recover and reinforce resistance during the period of illness. No recovery or ‘cure’ is possible if the defenders fail to organize this resistance. Medicines do not cure diseases by themselves. The actual cure, in the last resort, has to be a vital process (rather than a chemical one) restored to the cells by facilitating the building up of self-defence. The presence of the ‘*agent provocateur*’ or the causative germ, alive or dead, seems necessary to rouse dormant or passive tissues to offer effective resistance. Hence the use of the ‘vaccine’ for protective inoculation. It should now be obvious that inoculation is a close copy of the biologic process of natural recovery from disease.

Prevention better than Treatment.
—A complete cure of established

disease is not always a possibility. Concealed enemy forces are often left behind, to foment trouble in our weaker moments. The mopping up of guerilla bands is always a tedious process. Typhoid germs may remain behind (in the bile organs) even after a 'cure', and infect others coming into contact with the unsuspected convalescents. The innocent 'Typhoid Mary' was the centre of distribution of the infection to several unsuspecting persons. It is by no means an easy task to evict unwanted tenants from our organs in which they have entrenched themselves. It is clear that prevention by stimulating self-defence is far better than trusting to treatment that may not effect a real cure.

In epidemics where surprise assaults or 'lightning wars' form the tactics, we have no other effective means of control. As in human warfare, the defensive forces cannot be trained and mobilised during the panic of the invasion. We would be wise if we

strengthen our defence in anticipation of disease prevailing around us. When we cannot control our environment, we have to depend upon the individual resistance to beat back parasitic aggression. Civilized man himself seems compelled, very much against his better self, to adopt the tactics of the unfeeling brute or of the bacteria, by shedding his humanity and reverting to the tactics of the jungle.

Fatalism—a 'Sathyagraha' against Microbes.—If the prevention of dis-

ease is deemed a heresy or a sin against appointed destiny, then, so should be the treatment of disease. No strict fatalist ought to make provision against to-morrow by insuring his life or by planning in any manner for posterity. Few peoples cling on to life more longingly than we do, fatalists as we are. We dare not enter the tiger's cage trusting to fate, because we can guess too well what our fate is going to be! But we caress the infected patient even when told about the risk we incur thereby.

Known perils teach us caution every day. Why then should we be shy to learn from the teachings of medical science? Doctors and nurses dare treat and nurse the most virulent cases, having been fortified by inoculation.

Self-defence can hardly succeed where indiscriminate self-abnegation is the uncompromisingly accepted creed. The defender, to succeed, has need to have a great deal of faith in his own capacity, instead of



Mass Vaccination prevents an epidemic of Small-pox.

being haunted by a fear, that, do what he will, his best efforts are bound to be futile against a pre-ordained dispensation. Hope for the best: but also prepare for the worst staring before us. Fatalism in disease indeed seems like a 'sathyagraha' against the unfeeling microbes, the denizens of the vegetable world! It seems to permit of no lesson or benefit from experience. Our fate can be determined only after the event, when things have gone beyond human control. Something more active and positive has to be done before affairs have

taken an irrevocable turn. No disease can be prevented, if in the preventing of it, we are told that we are transgressing a divine law. Life cannot by any means be exhilarating if we assume the extreme attitude of a condemned criminal painfully aware of his coming doom, but powerless to struggle or prepare against it, even when the way of escape and salvation is revealed to him. What comfort have we when we see every other man succumb to an epidemic of cholera raging around us!

Science: The Hand-Maid of Fate.
—Science is a respectful student of Nature's Laws that it seeks to understand, interpret, and apply in life. She is but the hand-maid or the instrument that helps to shape our destiny. Science has come to influence our fate,—for good or ill according as we use it wisely or otherwise. And, as we seem to have been fated to inherit this boon, there can be no question of any conflict between science and fate. Any conflict can only be in the opposition supposed to exist between forces solely of His creation. Who dare deny that Providence had not plan-

ned for science to guide the destiny of man?

We have resigned ourselves to fate as regards the irrevocable past. The unknown future has also to be surrendered to Her keeping. But ours would be an unenviable fate, if knowing the precise nature of the danger before us, and knowing also its remedy, we are precluded from saving ourselves, by the tyranny of preconceived notions that cannot bear the light of reason to day. If it is arrogance to presume to control our destiny through science, is it not something approaching disdain to disregard the means of escape from disease vouchsafed to us by a benign Providence? We pray daily for deliverance from evil. Our prayers are answered in the gift of the knowledge, that, when applied (as it is meant to be), can contribute to our salvation.

The arming against our parasitic enemies is an unavoidable necessity in the interests of the community and of humanity, whatever our individual predilections. Protective inoculation is undoubtedly a God-sent boon to enable man to save his species if he is wise.

Effects of War.

War has been a greater plague to the human race than any of the dreadful scourges, epidemics and plagues that have from time to time swept the populations of the world. These plagues and epidemics tended to kill off the weak and defective rather than the strong and and virile. Thus in general terms it might be said that they acted as a purge. War, however, works the other way. The entire system of war tends to shelter from its scourge the physically weak, the mental defectives, the neurotics, the diseased and the habitual drunkards. It sends into the fire of battle for potential destruction the young men of all lands who are the fittest in all respects. War is actually the most effective form of race suicide known to man.—

Medical Times.

HEADACHE

By

DR. B. M. KOTHARY, M. B., B. S.,

JODHPUR.

WHOEVER that hath not experienced headache in his life-time is indeed a lucky one. But it is asking for the impossible. By virtue of its transient occurrence, one is apt to ignore it or be oblivious of it; and yet one cannot swear by his saints that he never experienced a headache.

For a malady which is so universal in affection, the cause is bound to be a legion—from just a mere eye-strain to a tumour in the brain. Causes can be classified thus: central, peripheral or referred. Any organ in the body, when upset, can produce a headache. Indigestion, constipation, exhaustion, alcoholism, exposure to cold, refractive errors, insomnia and fevers are some of the commonest causes. Inflammation of organs like brain and its meninges,

liver, kidneys, is frequently associated with a severe type of headache along with other physical symptoms.

It may be transient or of prolonged duration. It may periodically recur as in dysmenorrhœa. It may be slight in intensity as in constipation or serious like the dreaded migraine which is so painful and troublesome, sometimes even incapacitating. Temporal, occipital, supra-orbital headaches refer to the site of affection.

Treatment of such a common-place malady should necessarily be a house-

hold affair, and that accounts for the widespread popularity of 'Cafiaspirin' and such other tablets and powders. Physical agents like applications of cold (Eau-de-cologne), hot bath producing relaxation and massage—

manual or electro-therapeutical — all go a long way in alleviating ordinary headache. But if it is not so easily relieved, the causative factor must be ascertained and suitably dealt with. In this connection, a visit to a physician is well worth it—for he alone can decide where it originates, by what it is caused and how best it is to be combated.

A word of caution is indicated here. It has been observed that much wealth has been squandered in trying empirically

one drug after another—all highly priced and useful in their own way—till a temporary relief (or palliative treatment) has been secured. This fleeting relief is not well worth the price. Treating the symptom and not the cause is like storing coins in a bottom-less purse. All sorts of cures are advertised for migraine and yet we know how difficult it is to combat it. In order that useful drugs are not abused or misused, physicians must be consulted and correct treatment ordered.



Children wrongly fed with Tea, Coffee, Alcohol and other stimulants are liable to suffer from headache in after-life.

VITAMINS AND HEALTH

EVER SINCE the discovery of Vitamins, people have been desiring to know about their characteristics and properties. The more they know the more hungry they grow for some more knowledge about them. As if to pander to such a taste, the scientists and doctors have been year after year discovering some new vitamins which are so very essential for the maintenance and growth of our body. Here below, we shall examine them for the benefit of our readers.

Vitamin A is a colourless fluid soluble in fat or oil. Its precursor in the vegetable kingdom is a yellow coloured substance called carotin, found in most green vegetables, which is collected by animal organs from food and from it, the vitamin A is manufactured in the body. Deficiency of vitamin A renders the

body susceptible to respiratory diseases like tuberculosis, chronic cough etc., and also to night blindness and Xerophthalmia. It maintains the resisting power and nutrition of the epithelial cells of the lining membranes of mouth, bowels, lungs and kidney. Hence prolonged deficiency of it in the food we take may lead to diseases of these organs. Vitamin A is easily found in the yellow of hen's and duck's egg, butter, cod liver oil, halibut fish, lettuce, cabbages, tomatoes, carrots and mangoes, Rohit fish and Chital fish. It is not destroyed by ordinary heat required by cooking.

By

Dr. L. R. Fernandez,
Trichinopoly.

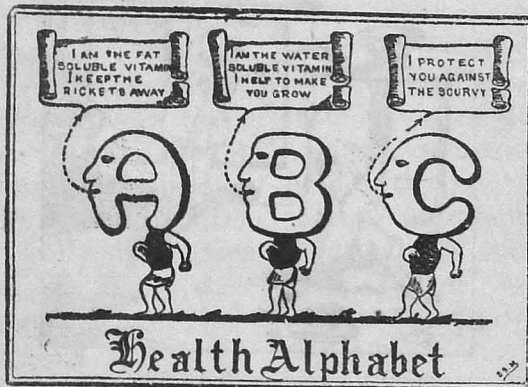
But prolonged heat in the presence of oxygen will destroy it.

Vitamin B₁ is a water soluble substance which has been recently isolated in crystallized form, from the yeast. It is very essential for the nourishment of brain and nerves, and which increases the digestive functions and activates the digestion

of starchy food. For the treatment of beri beri and epidemic dropsy it is a specific and a powerful preventive. It is also very useful as an adjunct for diabetic patients. It is available in germinating wheat, gram, rice-polishings, yeast, peas, yolk of egg and

potatoes. In a less degree, it is found also in green vegetables and leaves. It is destroyed by prolonged heat. So, it is advisable not to boil them for a long time.

Vitamin B₂ is water-soluble. It is a very effective pellagra-preventing factor. Pellagra is a disease caused by deficiency of vitamin B₂ in the diet. Those who suffer from it will have ulcers in the stomach and bowels, disorders of the intestines, headache, lesions on the skin, mental as well as nervous debility. Attempts were made to isolate crystallised



VITAMINS A, B, & C.

vitamin B₂ from whey, white of egg, kidney, and liver of animals, with good success. It carries oxygen like hæmoglobin in the blood. When ingestion of vitamin B₂ in the form of yeast is made, it increases the quantity of breast-milk in the suckling mother, which is very essential for the growth and well-being of infants. Vitamin B₂ is copious in yeast, liver, kidney, white of egg, cabbages. It is not easily affected by heat, but is spoiled in the presence of alkalies or if exposed to ultra-violet rays.

Vitamin C is called anti-scorbutic because it can cure scurvy. This disease is characterised by lack of energy, general debility, bleeding of the gums, internal bleeding in muscles and other organs, pain in the limbs and body. It is caused by deficiency of vitamin C in the diet. Before the Great War, a large number of soldiers and sailors were dying every year of this disease, as no vitamin C was known then, and as it was not provided with their diet in the form of fresh fruits and vegetables. During the Great War, Reichstein of Switzerland synthesised vitamin C. It is called ascorbic acid, available in the form of white crystals and is largely being used by the soldiers and sailors. Vitamin C also helps to carry oxygen like vitamin B₂. It is required very much for the growth of the body. It is found in oranges, tomatoes, lemons, pineapples, mangoes, grapes, fresh ripe chillies, potatoes, onions, cabbages, cauliflower, germinating grams peas, green leaves etc. It is destroyed by heat.

Vitamin D is required to regulate

calcium and phosphorus metabolism in our body. If it is deficient in the diet, rickets and osteomalacia develop. Ricket is a disease commonly met with in children and is characterised by deficient growth, malnutrition of bones which are soft and cause deformity. The child is irritable and suffers often from digestive disorders. Osteomalacia also is a disease of bones which leads to softening and deformities of bones. This disease is prevalent amongst the pregnant women. Vitamin D is fat soluble and found in cod, halibut oil, yolk of egg, milk and butter. The diet of pregnant woman must contain plenty of vitamin D. Vitamin D artificially can be obtained by irradiation of a chemical substance called Ergosterol by ultra-violet rays. Ergosterol is prepared from yeast but is also formed in our skin; hence the manufacture of vitamin D in our skin in the presence of sun-rays. As the growing children need it most, they must be allowed to play in the sun in the morning before 9 O'clock. Milk of healthy cow, and eggs are the easy sources of giving vitamin D.

Vitamin E is a fat soluble vitamin which stimulates the reproductive function. Its deficiency in the diet causes abortion in the early part of pregnancy of many a woman. To cure sterility, people take in vain many kinds of medicine to adopt surgical methods without thinking of this important vitamin E. It is found in oil of embryos of maize, oats and wheat; and also in lettuce and germinating grams. Put into water some grams at night. In the morning they will have germinated. Take them for 40 days.

FOOD POISONING

BY T. D. MUKHERJEE, M. B., D. P. H.,

Burdwan Bengal.

Food and food-poisoning appear to be contradiction in terms. One wonders how anything which is food can be poison at the same time. But this apparent inconsistency will disappear if the reader peruses this article with care.

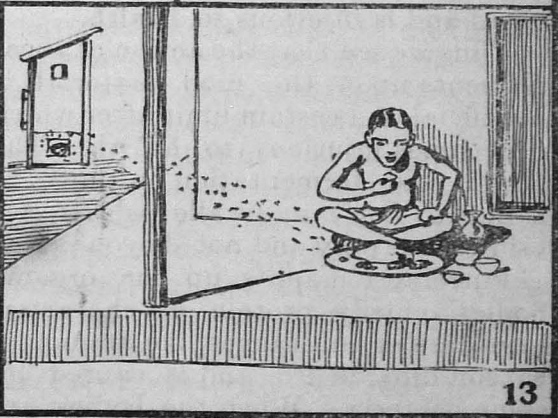
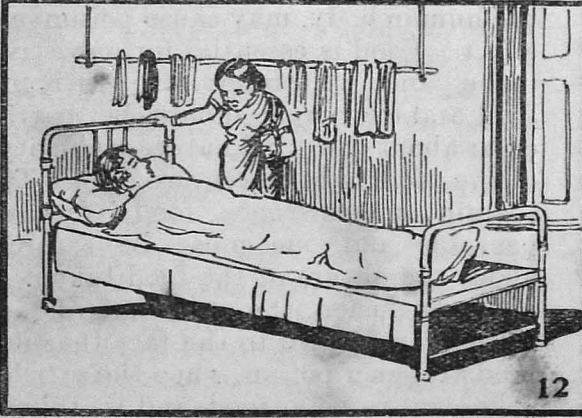
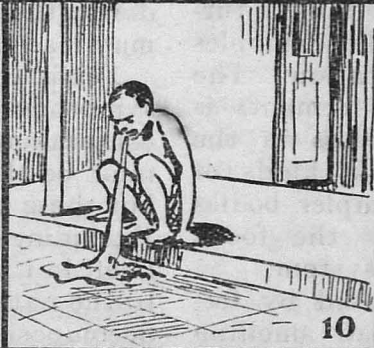
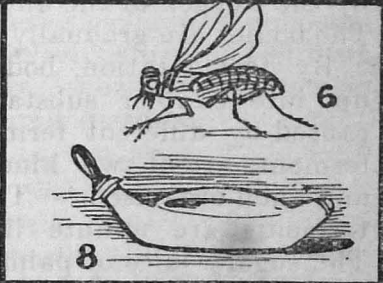
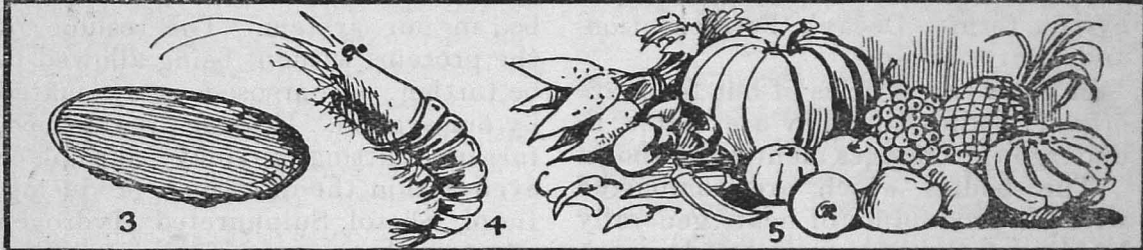
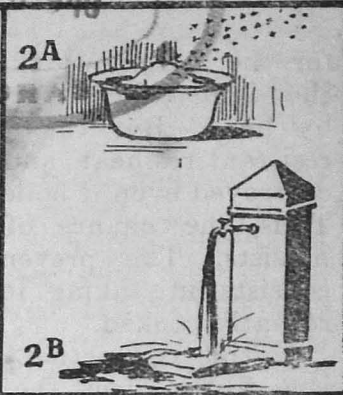
We often hear of cases of food-poisoning, but a very few have got a definite idea of the subject. In fact, most of the cases of so-called food-poisoning is due to some extraneous substances and in this country cases of real food-poisoning are indeed very few. The general public often take food either in excessive quantity or they take stale food and thereby suffer from symptoms of indigestion such as diarrhoea etc. and often term the symptoms to be due to food-poisoning, but if we know the real meaning of the term, the error of making the food responsible and not the way of taking it, would be clear.

The word 'poison' means "any substance, which, introduced into the living organism, tends to destroy its life, or impair its health".

There are two varieties of food-poisoning. First is caused by some micro-organisms and is termed food-infection. Second is caused by some toxins and is termed food-intoxication. Symptoms also differ. In infection the symptoms are nausea, vomiting and offensive diarrhoea and it is caused by infected fresh food within 12 hours of ingestion and there is pain in the abdomen. The mortality is only 2 per cent. While in intoxication, the symptoms are paralysis, constipation, diplopia, dysphasia etc. Subnormal temperature with gradual onset; and is caused by toxin in some preserved food. The mortality is very high and is about 70 per cent.

In food infection the causative organisms belong to the group of Bacilli Enteritidis. It is also caused Ptomain poisoning, as it is generally caused by ingestion of meat and is supposed to be due to a poison from the putrefaction of ptoma—a corpse. The causative organisms develop in the food and when the food contaminated with the bacilli, is eaten, symptoms of poisoning occur, with griping pain in the abdomen and profuse watery stools attended with fever. This infection generally occurs in hot weather and is often mistaken for other gastro-intestinal diseases. Flies may also carry the infection to other foods. It is generally a disease of the slaughter house and meat is most responsible for the infection. Sickly animals, specially those suffering from some septic diarrhoea are the chief sources of this infection and the man who handles it also carries the infection. The bacilli in meat are generally killed, when cooked. And we must remember that very little heat penetrates inside a large piece of meat and even after cooking, if it is kept for a long time, the spores which might have survived the cooking, may develop into bacilli. Therefore, the preventions are, precautions in the slaughter house and taking of food recently cooked.

In food intoxication, the causative factor is a kind of toxin developed by *Bacillus Botulinus* and the poisoning is often termed as Botulism. The bacilli may grow both in animal and vegetable food. The characteristic symptom is not diarrhoea but paralysis of nervous system and there is no fever. The tinned foods are mostly responsible for this kind of poisoning. The bacilli grow in the food and produce a toxin which is responsible



1. Polluted water. 2. (a) Flies sitting on Ice-cream. 2. (b) Pipe water. 3. Oysters. 4. Shrimps. 5. Fruits and Vegetables. 6. Fly. 7. Contaminated Food. 9. Feeding bottle, 9. Sweeping dust. 10. Vomiting. 11. Evacuation in the open. 12, Sick bed. 13, Food infected by flies from privy.

for the poisonous symptoms. Both the bacilli and the toxins are destroyed by heat. But the spores are very resistant to heat and they are not destroyed even if boiled for 5 hours. Thus, the chance of contamination persists. The prevention, therefore, consists in taking foods which are recently cooked.

In this connection, we should discuss a little about the idea conveyed by the terms 'Decay', 'Fermentation' and 'Putrefaction'.

Most of the articles of our food are organic bodies and they are liable to undergo the changes mentioned above.

The bodies which are combusted without production of heat, generally by the oxygen of the air, are decayed. The bodies are gradually destroyed.

By fermentation, bodies are split up into simpler substances and is caused by different ferments. These ferments are of two kinds, organised and non-organised. The organised ferments are minute living bodies. The sugary juice of palm trees is turned to alcoholic liquor; the milk is turned to Dahi; these are the examples of this sort of fermentation. The process of non-organised ferments is found in the digestive process in the human system. Different kinds of foods are reduced to simpler bodies by these ferments so that the foods can be absorbed into the system.

Putrefaction is also caused by ferments, but it evolves bad smelling gases and is injurious to health.

Thus we see that the action of these ferments upon the food material is beneficial to a certain limit, after which it becomes injurious to health. The lactic acid fermentation in milk to turn it to *dahi* may be allowed to a certain extent only and not beyond that.

Putrefaction splits up the organic bodies chiefly protein in character, into simpler substances like ammonia, carbon dioxide etc. and is caused by some bacteria. When the bodies are completely putrefied, the end products

are not poisonous in character but the bodies in the intermediate stage of putrefaction and in the final stage of fermentation act as a poison to the human system.

Proteins when taken as a food undergo also splitting up in the digestive system of human body and the proteins are first changed into Proteoses, then Peptones and then into Amino-Acids, in which form these are absorbed in our system. The residue of the proteins without being allowed to be further decomposed is evacuated by our system. If these are retained, further splitting up may take place even within the intestines, producing, Indol, Sketol, Sulphureted Hydrogen etc., which have got foul smell and act as a poison to the system. Outside the body the splitting up takes place not exactly in the same way but in a similar way, the end products of which are foul smelling and poisonous, and in this state, if taken as a food, also act as a poisonous substance. Thus, it is understood that rotten bodies in the later stages of putrefaction may lead to food poisoning.

Foods are liable to cause poisonous symptoms in other ways also. The contamination with metallic salts must be also taken into consideration, but these are extraneous substances. Excluding these substances, the food itself in its various states according to the nature, keeping, temperature, decomposition, both inside and outside the human body, may cause poisonous effect. Food is essential for our existence and we cannot live without food and every one should be particular about the kind, nature, quantity of the food to be taken by him. To sustain our existence, food is indispensable and one must be careful about the nature of the food taken.

In conclusion, the attention of the readers are drawn to the fact that no food acts as a poison, when the article is known to be a food and is taken freshly cooked.

Birth-Control

in its

New Light

By

Dr. Haridas De,

(Late Senior House-Physician, Campbell Hospital), Raigunj, P.O., Dinajpur.

BIRTH-CONTROL is now one of the burning questions of the day. But owing to misconception, it has become nauseating to the sane and sober section of the public. Birth-control as it is misunderstood now-a-days presupposes the use of certain contraceptive methods and much advertised drugs that are worse than useless. To dispel such erroneous notions about birth-control, we must clearly understand the true implications and far reaching effects of birth-control in its individual, social, economic and national aspects.

From the view points of individual and national economy and welfare birth-control is an urgent necessity. To have numerous children without having adequate resources for their proper development—physical, mental and intellectual—is an unpardonable offence both for the individual and the nation. So, control over birth is absolutely necessary in the best interests of our national welfare. We must direct our efforts to the question of how to ensure the full growth of the children that are the most valuable assets of the nation. To have lots of children unfed, unclothed and uncared for is to commit the vilest of crimes. So, we must have birth control for the all-round growth

and development of the children committed to our care.

But, contraceptive methods for effecting birth control are almost futile. The use of rubber contraceptives causes cancer, ulcer, etc., in the female genital organ. It also hampers the full satisfaction of carnal desire and leads to hysteria and brain fag in the woman, and nervous debility in the male. Now-a-days, if we open the pages of a daily, we find it giving prominent space to advertisements on medical contraceptives, specifics for nervous debility, impotence, female diseases and so on. These much advertised medicinal contraceptives serve no useful purpose. They are positively harmful and lead to hæmorrhage, leucorrhœa and other pernicious female diseases.

From the ever increasing number of medicinal contraceptive methods, we may guess the cause. There is no denying or ignoring the fact that promiscuous mixing of grown up youths and unmarried girls (whose number is unfortunately legion in this accursed land of dowry system) is the root cause of many disasters arising from the illegitimate pregnancy of such girls. To avoid social scandal, many such girls use contraceptive methods or resort to medicinal drugs for causing abortion with terrible consequences.

So, the time has come to tackle the problem of marriage as a national problem of far reaching effects and to devise means for the eradication of the social evil that goes by the name of dowry system. Moreover, parents should keep a strict watch over the movements of grown-up girls of marriageable age and never allow them to visit cinemas and other shows along with their boy friends. Moreover, married couples should never use contraceptive methods for birth control, but regulate their lives

within reasonable limits so as to exercise some sort of self-control for the best interests of individual and social welfare and development—physical, moral, intellectual and cultural. Children of such parents will prove to be the best assets of the nation, their richest heritage and

the builder of the Greater India yet to be.

In a word, self-control, and birth-control must go together for building up a virile race of healthy, strong and radiant youths—the would-be fore-runners of the glorious Nation in the making.

Physical Culture in Education

By Dharamdas Sunderdas Bhagtani, Karachi.

MIND over matter is the slogan of most of us. Our entities have been divided into physical and mental, the latter claiming the whole of our attention. That this division is arbitrary is seldom realised by parents, educationists, etc.

Mind is dependent on the brain without which it cannot exist. Upon the healthy functioning of the highly specialised cells of the brain cortex or grey matter as it is called, all mental activity depends, and should these cells be injured as by a blow on the head, or should they be poisoned as by alcohol or disease toxins, then mental disturbances will result. Proper nourishment of these cells will make them healthy and vigorous. If the brain arteries are thickened and hardened, the brain cells will be inadequately nourished and degenerate, resulting in an impairment of all the mental functions such as occur in morbid old age. Again, although the brain is essentially the organ of mind, it is in constant communication with every part of the body and the impressions conveyed to it via the nerves influence it. Thus, mind comprehends the whole bodily life, being in sympathetic contact with it. Upon the healthy or otherwise working of the lungs, skin, heart, digestive organs and ductless glands, the background of

our mental feelings plainly depends. The sanguine optimism of

the consumptive, anxiety and fear associated with heart affections, irritability of temper of a dyspeptic, confusion or delirium during a toxic fever, are familiar to all. A feeble or failing thyroid gland produces degenerative mental changes, bluntness in concentrating power and absence of initiative and so on.

It is clear that a sound body must be a precedent to a sane and receptive mind. The first principle of education that you cannot develop in a weak, stunted and unhealthy body, a stable and sound mind, is forgotten. It seems futile to reform education apart from the physical condition of the child. Physical defect was one of the chief causes of backwardness in schools. There was an accumulation of defective children of the higher ages in the lower standards, writes Sir George Newman of the British Health Ministry. Dr. Daniel Russel Hodgson, a member of the Faculty of New York University, President, Hahnemann Medical College and Hospital, Chicago, after six years' experimentation on 1100 boys, says that a large percentage of the so-called backwards fell behind in their studies as a result of lowered health, whereas when the *same* boys were brought back to normal health, they promptly and naturally stepped right

up to their expected level of mental work in schools. Prof. L. M. Terman, Head of Psychology Department of Stanford University, with the help of some others, selected from schools, 1000 mental top-notchers. An ordinary man or boy would score 100 points in the intelligence tests used. But no boy who scored less than 140 points was selected. Some indeed scored as much as 190 points or over. The Professor says, "On the average these child-prodigies were stronger, bigger, tougher and healthier than ordinary children." "I believe that in young age as boys are given mental training, so also they should be given physical training" says Gandhiji. Lenin wrote "Youth needs healthy sport, swimming excursions, physical training of all kinds; a variety of mental interests, study, investigation, scientific research... a sound mind in a sound body." "The force of understanding increased with the health of the body" says Democritus. Thus, a sound body and a sound mind are not incompatible but an ideal to work for.

What this health is that influences our mental welfare so much is what we should try to understand now. In the first place, let us see what disease is. Disease is weakness of cells by virtue of which they cannot discharge their duties satisfactorily, thus producing unpleasant symptoms, differing with the locality of the weakness, producing so many diseases, while in reality weakness is the only disease that we suffer from. Constipation is the outcome of weakness of the excretory organs. So also are other diseases.

Curious and startling as this statement might sound, its truth can well be realised after some quiet reflection upon the matter. We know that in epidemics, everyone does not catch the disease. Why? If germs be the ultimate moulders of destinies of our physical health, surely all people residing in a particular locality ought

to fall victims to their onslaught. Evidently that is not the case. It is only those who are not strong enough to resist the attack that go down. And even thereafter, if the vitality is adequate, the disease is ultimately defeated.

It may amaze you to learn of the assertions by the most famous authorities in Pathology, to the effect that such dreadful microbe-life as the Tubercle-Bacillus, Typhus, etc., is discovered lodged in accredited healthy organism and that only when a depletion of vitality of life occurs, the respective disease symptoms that are associated with the particular species of germs, become visible. It is presumptive, therefore, that the theory regarding germs producing diseases is long exploded. Some experts even contend that microzyme is created by Nature to combat such elements as are otherwise working the wreck of metabolic balance—the keystone of physical health.

Weakness is disease. But, we cannot make the reverse statement that strength is health. Strength of some cells at the expense of others is not health. Health is a harmonious development and strength of all the cells of our body. Health cannot tolerate exploitation of certain cells at the expense of others. There is a perfect socialism of strength for all the cells of a healthy body. Neither is a man, strong in arms though lacking in virility, healthy nor is a consumptive with an insatiable sex appetite so.

It is only the aforesaid health and not any other that aids our mental powers and hence deserves cultivation. Weakness—respiratory, glandular or any other—exerts a harmful effect on our mental apparatus, the brain, and therefore on our minds.

That strength results from overcoming resistance is the first law of creation. Activity is life. Stagnation spells decay. We oft-times come across a sadhu with a shrunken arm

raised overhead—a result of his not using it. Our own limbs we do feel weaker when they have not been used for some time on account of some injury. Use them or you shall lose them is clearly the injunction of Nature. But games, sports or haphazard movements of the body cannot produce the requisite health. Only balanced movements suiting the individual needs and strengthening the whole physique harmoniously *i.e.* scientific exercise can confer such health. Others disturb the little harmony that happens to exist in our bodies rather than produce such a harmonious state. No wonder, we hear a cricketer suffering from indigestion, constipation, catarrh, etc., or even falling dead from heart failure while taking off his leg-guards or while running.

It is farthest from our mind to discount unnecessarily our games, though we cannot but realise that these will not act as substitutes for scientific physical culture. Such training is needed to strengthen such parts of the anatomy as are neglected in our selected sport and thus maintain and promote the requisite harmony. That is exactly the procedure followed in progressive quarters. Tate, Hendren, Bradman and all others have recourse to scientific exercise besides the prominent part they take in their chosen sport.

Now in the past few years, Yoga has made a deep impression in the scientific world notwithstanding a great deal of unnecessary mystery woven round the subject. It is not a form of magic, but as real a science as mathematics, chemistry or engineering. Primarily, the object of Yoga is soul elevation, and as this cannot be utterly dissociated from mind culture and physical culture, the system does provide a system with a finesse that other systems lack.

Consider abdominal control and its importance in the acquisition and maintenance of health. During the past 20 years, physical culture experts the world over, have laid considerable stress on an exercise known as “Isolation of the abdominals” supposed to have been first performed by Otto Arco, the great Polish athlete. But this is none other than Madhyam Nauli of Yoga known since thousands of years being a part of Nauli which is a much complicated affair. Uddiyan Bandha is another stomach control.

Cleanliness is the keystone of fitness and there is no other system that includes instructions about nose cleanliness as does Yoga. Jalaneti, Yugalaneti, Garsananeti, Samanyaneti, Sita-kapalabhati, etc., are some for such purpose. There are other valuable practices such as Varisaradouti—a form of intestinal purification by means of drinking water and driving it through the system by mind and breath control; Basti, a form of internal cleanliness far more efficient than the enema and used by certain birds and animals, though never to be found published in any book but on Yoga.

Yoga, if followed implicitly and faithfully, will induce radiant health, a clear mind, and increased bodily efficiency and will clothe you in an airy lightness, the like of which you have never felt before, though to best avail of the numerous blessings that it confers upon its votaries, it is obligatory that its precepts be followed correctly. Proper guides, who have besides making a comprehensive study of the science, accepted it as a part and parcel of their life and are able to show the results in their own person rather than fakes who feign to be the experts, are essential as are experts of other sciences for a correct guidance in their respective specialties.

SEEING that nine-tenths of the normal person's day is spent in walking or standing, the possession

CARE OF THE LEGS

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of straight, well-developed legs is of great importance. This is particularly true of those engaged in jobs which necessitate long continued standing behind counters and in similar occupations.

To realize what part the muscles play in the mere act of standing or walking, it is only necessary to study a chart of the muscles of the body.

The body's erect position is maintained by the co-operation of several groups of muscles acting together, while seeming to work in opposition. For instance, the muscles of the calf prevent the body from falling forward; but if those muscles were to be called into action independently of the other "helping" muscles, the body would fall backwards. They have to be balanced by the contraction of the opposing muscles to counteract the pull. The centre of gravity is thus maintained by the various sets of muscles contributing to the general effect.

When in violent motion, as in running, the contraction of the muscles is much more rapid and powerful than in walking.

The extensor muscles of the thighs are called into force as the body is propelled forward. A simple act such as tapping the foot on the ground calls into action the muscles of the calf by contracting them.

To develop these various sets of muscles, outdoor sports such as climbing, swimming, tennis, golf, or running and sprinting, are all effective and very enjoyable. Unfortunately, there are those whose legs are sadly in need of building up, in order to take part in any games or activities of a strenuous order.

To such people, and also to those

who wish to hasten the development of any set of leg muscles, the following exercises are helpful.

1. Stand erect, with hands on hips. Bend the knees until nearly sitting on the heels. Then slowly rise. Repeat on one leg only, holding out the other in front. This is very difficult, and too strenuous for beginners.

2. Stand before a chair or table and climb up with one leg, as if about to stand on it, hold the position for a moment before returning to the first position.

3. Recline on right side. Raise the body on one hand and the outside leg. Lift the inside leg and swing back behind the knee. This is especially good for the adductor muscles, mentioned previously.

4. Stand erect. Raise the right leg and swing it forward as high as possible. Do not bend the knee. Now take the leg backwards as high as possible. Repeat with alternate legs.

5. Repeat the leg raising, but take the leg across the body, alternately to the right and left.

6. Hop, raising the knees high, and touch alternate knees with the toe whilst springing in the air.

7. Hop, touching toe on the ground about one pace forward with alternate feet. Perform very rapidly and lightly.

8. Running in place.

9. Deep knee bend, placing the feet in four different positions. First, feet together. Second, feet wide apart. Third, right foot placed one space in front. Fourth, heel of the right foot to the toe of this left foot.

10. Lunge forwards bending the knee, in front, but keeping the rear leg taut.

THE VITAMINS

By R. R. SUKLA,

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" A "

Oh! fine and fat was Ralph the rat,
And his eye was a clear cold grey.
How mournful that he ate less fat
As day succeeded day,
Till he found each cornea daily hornier,
Lacking its Vitamin A.
"I missed my Vitamin A, my dears,"
That rat was heard to say,
"And you'll find your eyes will keratinize,
If you miss your Vitamin A".

" B "

Now polished rice is extremely nice
At a high Suburban Tea,
But Arbuthnot Lane remarks with pain
That it lacks all Vitamin B,
And beri-beri is very very
Hard on the Nerves, says he,
"Oh! take your Vitamin B, my dears,"
I heard that Surgeon say;
"If I hadn't been fed on standard bread;
I shouldn't be here to-day".

" C "

The scurvy flew through the schooner's crew
As they sailed on an Arctic Sea,
They were far from land and their food was canned
So they got no Vitamin C.
For "Devils the use of orange juice,"
The skipper'ad said, said he,
They were victualled with pickled pork, my dears,
Those mariners bold and free,
Yet life's but brief on the best corned beef
If you don't get Vitamin C.

" D "

The epiphyses of lemima's knees
Were a truly appalling sight
For the rickets strikes whom it jolly well likes
If the Vitamin D's not right.
Though its plots foil with our Cod-liver oil
Or our ultra-violet light,
So swallow your cod-liver oil, my dears,
And bonny big bales you'll be.
Though it makes you sick it's a cure for the rickets
And teeming with Vitamin D.

" E "

Now Vitamin D and A, B and C
Will ensure that you are happy and strong,
But that's no use; you must reproduce
Or the race won't last for long.
So Vitamin E is the stuff for me
And its praises end my song.
We'll double the birth rate yet, my dears,
If we all eat Vitamin E
We can blast the hopes of Marie Stopes
By taking it with our tea.

Breast Feeding for Babies

ON many important subjects the leaders in medicine disagree. But about breast feeding they are unanimous. They believe, first, that no perfect substitute for mother's milk has been found. Second, that almost every woman is capable of nursing her young...Should babies be breast-fed or bottle-fed? Under its deceptive simplicity, this question hides profound significance. It requires an answer from mother and physicians. Also from each man and woman in the nation. Ultimately, from democratic society itself. In nursing her child, the mother fulfils her high duty with regard to the community. But the community must give her the educational, moral, and material help indispensable to the fulfilment of this duty.—*Alexis Carrel, M.D., Nobel Prize winner, in The Reader's Digest.*

Ways With Oranges

FRUITS are not only the most delicious of foods, but in them is stored valuable medicinal and healing properties. The demonstrated value of using some raw food as part of the daily diet has given new interest to fruit as an essential part of a sound dietary. Ripe fruits supply nutriment in a form most easily and readily absorbed, and their juices are converted into blood and energy quicker and with greater ease than any other form of food.

The orange is one of the most healthful of fruits and the richest in vitamins. It is also considered to be the safest of all fruits for young children and the juice can be given to quite small infants.—*The Citizen.*

Relation of Diet and Health

HEISER in the *Scientific Monthly* (Oct. 1939, p. 304) states that there is close association between the importance of diet in the preservation of health cells and tissues with consequent normal function. An experiment conducted with rats showed that no disease occurred among correctly fed rats. Many of the common diseases encountered by physicians were induced in rats by feeding to them improper diets.

In man it is important that the constituents in his diet be properly balanced and that the digestive tract be in a healthy state if the correct diet is expected to produce and maintain bodies which are free from disease.

If man's digestive tract has been deranged by many years of the wrong diet or improper eating it is impossible to restore his system to the normal state. This should serve as a warning to keep the intestinal tract in good condition as well as continued ingestion of the proper dietary necessities.

An economic aspect of the situation is that the correct foods require a lower outlay of money than the menus to which humans are commonly accustomed. A smaller quantity of food is sufficient if the diet is correctly balanced. The greater majority of people have the bad habit of eating too much of unnecessary substances, consequently they are often depriving their systems of a more needed food which is present in very small quantities.

A larger percentage of sound healthy people at a much lower cost for food might be produced if the nation would scientifically regulate the consumption of food.—*Medical Times.*

Autobiography of a Louse

MAN calls me an insignificant insect in spite of my intimate association with him. To maintain my ancient reputation, I am obliged to wreck his life and his best laid schemes. My influence on human destiny has conferred on me a distinction greater than that of any other member of my family. The highest summit of my ambition has been reached by being made the subject of a text book illustrated with a wealth of beautifully coloured pictures such as would satisfy a Hollywood film star. There my musculature, my internal economy, and various cross sections of my body are set forth with an artistry which can scarcely fail to appeal even to those to whom I am a complete stranger.

My origin is 'a puzzling question but not beyond conjecture'. A suggestion has been put forward which though incapable of any proof has a certain fascination. This is the theory that I represent the direct lineal descent of the original indigenous inhabitant of the human body which was driven from the richer pastures by a stronger invader when man began to clothe himself with skins, and has taken refuge in the safe retreats and fastnesses of the head, just as the Celt was driven into the woods and mountains of Wales and Cumbria by the invading Saxon.

Doubtless my association was regarded as one of the accepted facts of life, inconvenience perhaps but inevitable, even though it may have been 'detested, shunn'd by saint and sinner'. Certain it is that lousiness was not considered derogatory or undignified. It was certainly no bar to a reputation for sanctity. When Thomas a Becket lay dead on the pavement of Canterbury Cathedral a member of my family was crawling about his body with his friends. Once when I was straying, a saint saw me

and carefully replaced me where I could get my accustomed meals. Even a game is called after my name and is known as 'Louse Searching'. It is played by men and women arranged as two sides. They all kneel in a circle on the sand and one is blindfolded. He puts his head down and a member of my family is picked from his head and buried in the centre of a circle. They all sing and beat the ground with their hands while the blindfolded man searches for my kinsman. If he succeeds in finding him, a member of the other side is blindfolded and his side remains in until the search has been successful.

It may fairly be claimed that I have received some poetic consideration also. Samuel Butler, describing the range of information possessed by Sidrophel, writes that he knew:—

'Whether pulse beat in the black,
List of a dappled louse's back.'

But what even Sidrophel did not know is the highly original method by which the larval louse frees himself from the nit in which he has developed.—*With apologies to Dr. G. A. Auden, M.D.M.A., Ph.D. F.R.C.P.—The Medical Officer.*

Utility of Milk

MANY things are being made from milk quite apart from the usual dairy products. In Canada there are several factories for making casein from milk, and from casein other firms make buttons, imitation ivory, furniture glue, binder for paints, sizings and many other commodities. One factory buys whole milk, skims it and makes butter from the creams. The skim milk is used in casein; the lactose, or milk sugar, is used as a supplement in baby foods; the albumen is separated out and being rich in protein and Vitamin C, is used as an animal concentrate. In fact, all that is left when this firm is done with milk is water.—*The National Health Review.*

India Driving Out Drink

PROHIBITION is making headway in India and the Congress has adopted it as a plank in its platform. Nine provinces have introduced the reform in limited areas; there have been loss of revenue and increased expense to prevent smuggling and illicit manufacture. The *Lancet* announces that the city of Bombay went dry on August 1, 1939. About \$15,000,000 has been spent yearly on strong drink, half going to the government in taxes. There was rioting between rejoicing Hindus and the Parsees who owned the liquor shops. The Parsees protested against the new property tax which was to raise the revenue that formerly came from sales of alcohol.

There was one noticeable difference between the movement in India and in the United States. Here, a large part of the population openly scoffed at the law and were not sympathetic to its enforcement. In Bombay, 800 volunteer prohibition guards, among them students, doctors and lawyers, are helping to carry out the law, while 20,000 members of various organizations have also offered their services.

For a year, there has been prohibition in a rural area around the town of Salem, in the Madras Presidency. Professor P. J. Thomas of Madras University reports that formerly the average annual drink bill among certain classes of Salem workers was about \$33; out of the population of 2,500,000 not more than 200,000 took drink but the liquor sales exceeded an annual average of \$10 per capita. Attendance of workers at their jobs rose from sixty-three to ninety-one per cent; previously only ten per cent earned the monthly bonus of seventy five cents for regular attendance; the number had increased to seventy-five per cent.

The factories had a larger out-put.

More vegetables and dairy products were consumed. Receipts at the moving picture houses grew from \$75 to \$190 daily and two new establishments were opened. Miscellaneous retail trade had improved and debts had been reduced.—*Good Health* (U. S. A.)

Numerous Ailments Traced To Drinking Water

DRINKING water is getting blame or credit for many things these days. Drinking distilled water has been shown to be bad for the teeth, also natural waters which contain appreciable quantities of fluorides cause spotted teeth and decay. Waters that contain calcium and phosphates are troublesome to the laundry but are good for the human system. Now European chemists have found that some allergic diseases, such as asthma, eczema, scleroderma, etc., prevail most often in regions where the drinking water is low in dissolved salts. Administration of calcium and magnesium salts, particularly of the latter, seemed to be a quick remedy. Evidently we need to revise our idea of what is a "pure water" from a health standpoint.—*Druggist Circular*.

Diet vs. Exercise

CAREFUL eating, not exercise, is the best way to reduce, according to Dr. C. C. Sturgis of the University of Michigan. Although a football player may get rid of 14 pounds in a strenuous game, only about 4.7 pounds of the loss comes from fatty tissue; the remainder is water loss that will be replenished. "A climb up the Washington Monument will work off the weight of one part of butter," the obesity expert reported. "I think it's simpler not to eat the butter."—*Newsweek*.

Health Tit-Bits

Humour

Give me a sense of humour, Lord,
Give me the grace to see a joke
To get some happiness from life
And pass it on to other folk.—*Lancet.*

* * *

God and the Doctor

“God and the doctor we alike adore
But only when in danger, not before
The danger ov’r both are alike requited
God is forgotten and the doctor slighted.”

* * *

People ill and People unhappy

“THERE are more people ill because
they are unhappy than there are people
unhappy because they are ill.”—
Sir Walter Langdon Brown.

* * *

Bad Housing

“THERE is no subject in the whole
range of Preventive Medicine in which
the evidence is so general and incontrovertible
as in regard to the ill-effects of Bad Housing
upon the human organism.”—Sir George Newman,
former Chief Medical Officer, Ministry of Health
of England and Wales.—*The National Health Review.*

* * *

An Apple a Day

BOBBY: “Mummy, is it true that an
apple a day keeps the doctor away?”

Mother: “That’s what they say.
Why?”

Bobby: “I kept 13 doctors away
today but now I’m afraid I’m going
to need one.”

On Travel

TRAVEL, in the younger sort, is a part
of education; in the elder, a part of
experience. He that travelleth into a
country before he hath some entrance
into the language, goeth to school,
and not to travel.—*Bacon.*

* * *

Tuberculosis, a Disease of Antiquity

TUBERCULOSIS has been a health
problem for centuries. In the fifth
century before Christ, Hippocrates
wrote of the “wasting sickness.” The
Egyptians, even before that, were
afflicted with tuberculosis. — *The
National Health Review.*

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Overdoing Physical Exercise

“EXERCISE carried on without strain
or undue fatigue keeps the body in
tone.” But “exercise designed to
‘build muscles’ beyond the needs
merely, leads to increased food intake,
and when, because of age or lack of
opportunity, the amount of exercise
is decreased, fibrous and fatty dege-
neration and infiltration takes place.”
—*Good Health (Lond.)*

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The Healthy Child Which Won’t Eat

IF a healthy child won’t eat, treat
its mother. If the child is getting
any sort of kick out of life, by refus-
ing food or taking it so slowly as to
make parents desperate, then it is
mother’s solicitude and worry which
give it that kick. The exact method
of approach must depend upon the
personal idiosyncrasies of the mother
and can hardly be summarised in any
useful manner.—*Medical World.*