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Editorial

Rural Uplift

(Continued from page 204, of Nov. '37 Issue).

In our Editorial last month, we were discussing about Rural Medical Relief We pointed out that the Hon. The Health Minister had practically approved of our Scheme and made the Rural Medical Practitioner responsible not only for the treatment of the sick and the suffering within his jurisdiction but also for the health and sanitation of the villages. He had also added medical inspection of school-children to his multifarious duties—a desirable addition, no doubt, provided the Rural Medical Practitioner finds the time for it and is adequately recompensed for this extra work. Thus, the villager's life, health and welfare, from his cradle to the grave, are entrusted to the care of the Rural Medical Practitioner and the happiness of the people in rural parts consequently depends entirely on the Medical Practitioner's skill, tact, intelligence and integrity. The Rural Medical Practitioner will be assisted by a compounder, a vaccinator and a midwife. At present, all dispensing work is done by the Practitioner himself and he finds, therefore, very little time for adequately examining the patients. The appointment of a compounder will relieve him a good deal of his routine work of dispensing and the Practitioner can devote more time to the examination of patients and to his itinerary and health duties.

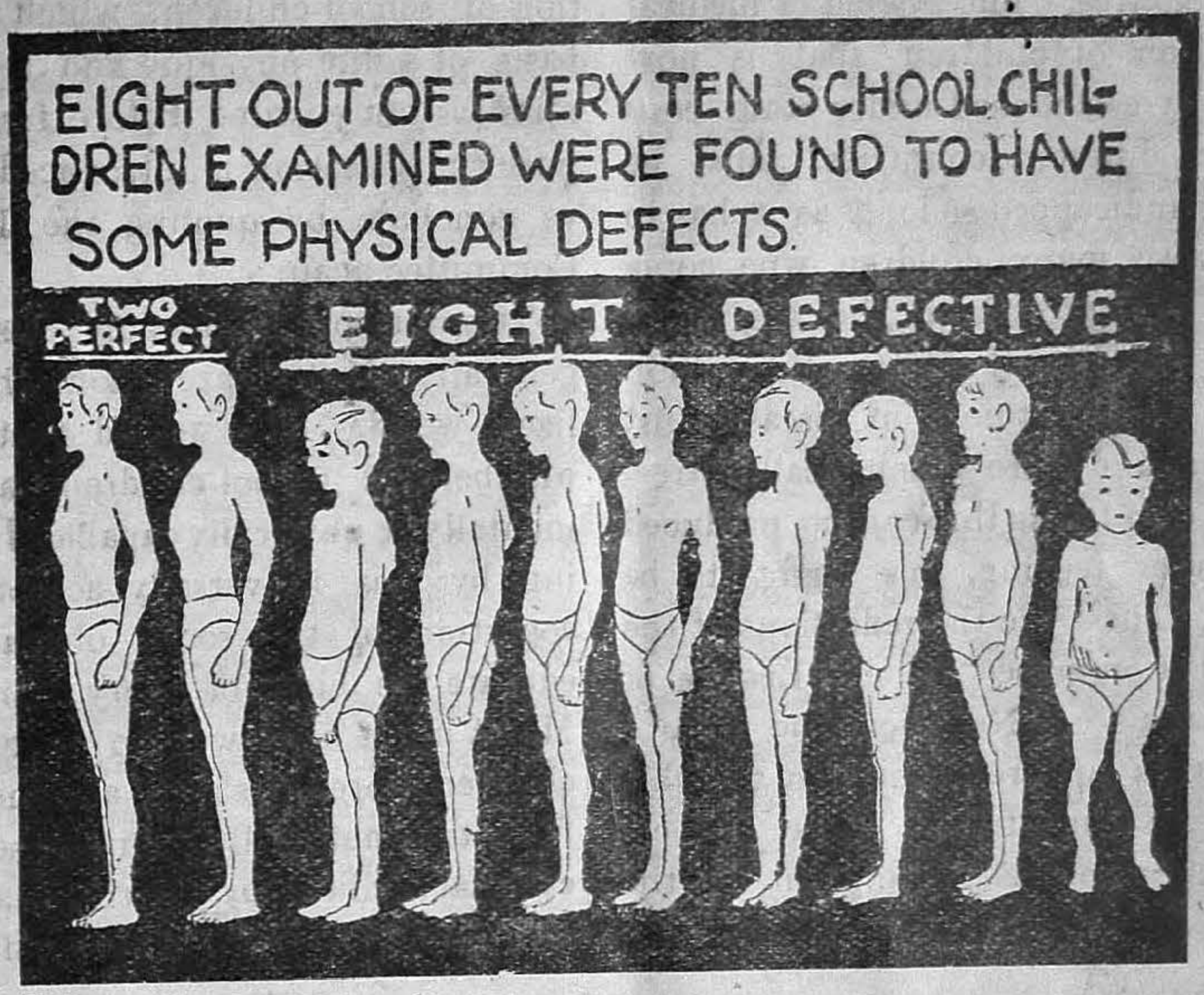
The vaccinator will regularly tour the villages, detect all unprotected

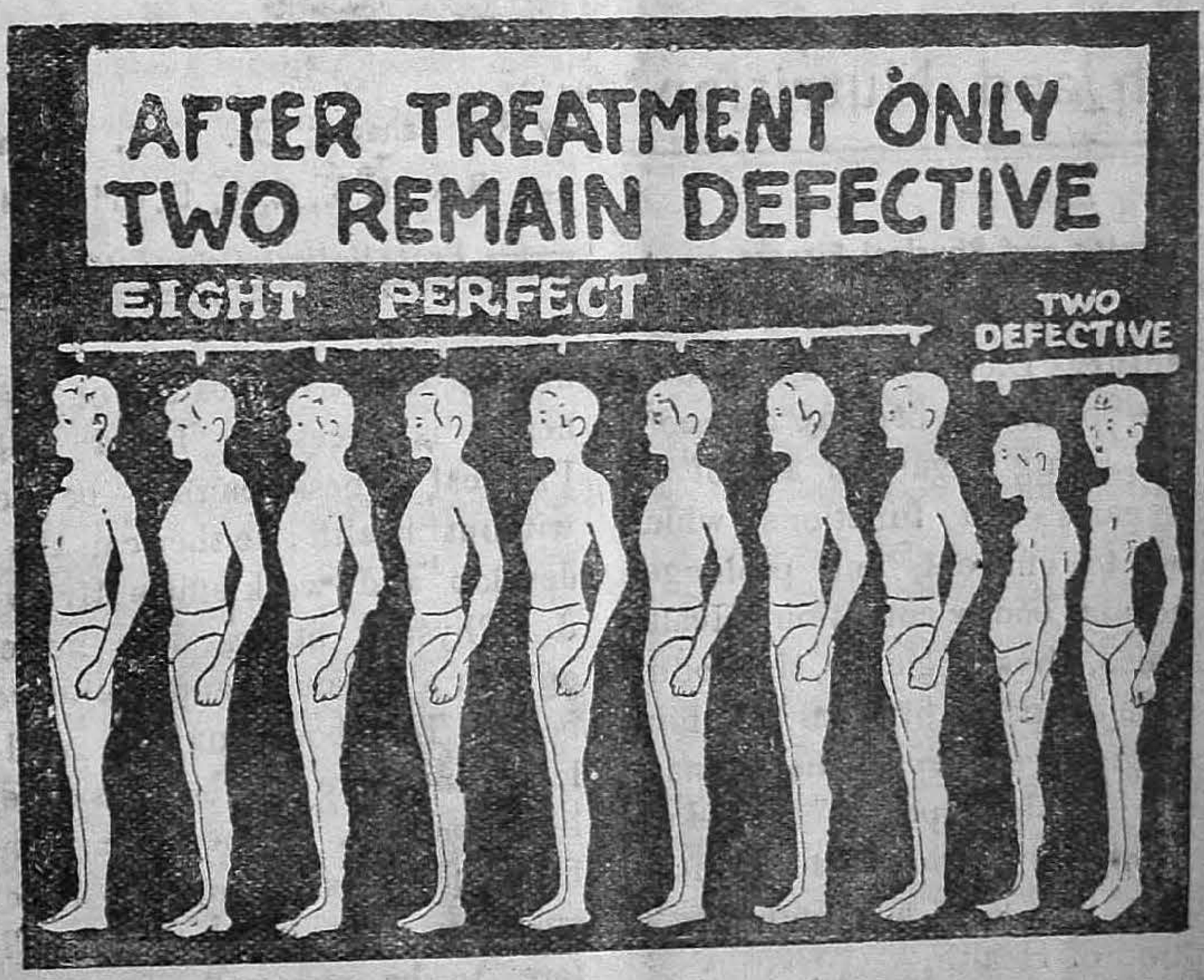
children, vaccinate them and bring offending parents to book. The vaccinator must be a trained man in his line and must also know something of disinfection, so that, when a case of small-pox or for the matter of that, any infectious disease, occurs in his area, he might be able to take prompt measures and prevent the spread of the disease. In this connection, the following observation of Dr. Jahar Lal Das, D. P. H., in his book on 'Manual of Hygiene and Public Health,' is worth noting : "The vaccinators should be trained in anti-epidemic work and provided with a small emergency outfit containing cholera mixture, disinfectants etc. and may be employed during the off-vaccination season (April to September) for combating any epidemic, especially cholera that may break out. The menial staff (sweepers, peons etc.) should also be instructed in the methods of simple disinfection and cleaning up infected localities etc."

Then comes the maternity and child-welfare work. This is the most neglected duty on the part of the Health Department at the present day, especially in rural parts Midwives are not attached to most of the existing rural dispensaries and the expectant mother is left to the tender mercies of the barber-midwives in villages, who play havoc in maternity work. A trained midwife, therefore, within easy reach of the villagers is a great desideratum and the money spent on midwives is money well-spent. "A very urgent need exists for the training of native women in midwifery and maternal and child welfare work. In several countries it may at present be difficult to find suitably educated women for training. On the other hand, in a number of territories, such women are now available but there is a lack of opportunity for training. In countries where such women are available, it is considered essential that opportunity for training should be provided and in those where no sufficiently educated women are at present available endeavours should be made to educate selected girls with a view to their being later trained in midwifery, maternity and child-welfare work". We commend the above findings of the Committee appointed by the League of Nations to enquire and report on Rural Hygiene for Far Eastern countries, for the earnest consideration of the Ministry. These barber-midwives may be given the necessary training in midwifery and the proposed Public Health Act should contain a provision that no woman shall practise midwifery, on pain of penalty, in any village without a Licence obtained from the District Medical Officer. The District Medical Officer may be asked to undertake the training of these barber-midwives, free of cost, for, say, 6 months and arrange for clinical instruction being given in the Women and Children's Hospital in the district.

Lastly, there is that arduous task of medical inspection of school-children, which has also been assigned to the Rural Medical Practitioner. This is another important but grossly neglected duty. We are glad the Hon. The Health Minister has realised its importance and has made the necessary provision for its fulfilment. The Congress Government is going to introduce free and compulsory education in rural parts and if the school-children are not physically and mentally fit to receive that education

and profit by it, it will be another colossal waste as the present-day





education is. "In the early years of school-life, many children are already 'damaged goods'. They frequently show evidence of previous defective feeding and lack of care in deformity of the bones, of the limbs, chest and head, in bad dental structure, often associated with decay, in deafness to a

greater or lesser degree, in running ears, septic tonsils and adenoids and in simple goitres. The system of medical inspection of children that is now generally established under State control in different countries* must be sadly handicapped so long as it has to deal with many children who come under its control from the beginning in a pathological state. Prevention rather than treatment of disease must be more and more emphatically stressed and so far as this can be produced by better feeding, this ought to be done". These are the reflections of the Mixed Committee of the League of of Nations on Nutrition and Health and it is apparent that no tangible good will result from a mere medical inspection of school-children, if the nutritional needs of the children are not met. It will certainly be putting the cart before the horse if good nutrition of school-children, which is the basis of a fine physique and a sound mind, is not ensured before free compulsory education is introduced. Let us conclude by quoting the League Committee again :

"Compulsory education has been generally adopted throughout the civilized world. It is agreed that large numbers of school-children are not mentally or physically capable of profiting by this universally accepted recognition of the social obligation to educate the mind of every individual. Might it not be as well to make such children more physically and mentally fitted to benefit fully from these educational facilities by assuring that their nutritional needs are fully satisfied ?"

Health and Nutrition*

By Rao Bahadur Dr. T. S. Tirumurthi,
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Health and Physical Fitness

HEALTH has been defined in the Century Dictionary as follows: "Health—Soundness of body; that condition of living organism and of its various parts and functions which conduces to efficient and prolonged life; a normal bodily condition. Health implies also, physiologically, the ability to produce offspring fitted to live long and to perform efficiently the ordinary functions of the species," I admit that this is not a short and concise definition; but it is a comprehensive conception of Health.

Health is not merely the absence of illness. Positive health or dynamic health is necessary for a full life. Physical fitness cannot be secured without health ; neither can the mind develop and work efficiently without it. Physical fitness does not consist only in a muscular and well-developed body. The body may be well-developed but there may be physical defects like lameness, deafness etc. Physical fitness depends also on the functional efficiency of the vital organs. Therefore, to be physically fit, we should have good limbs, sound sense organs

* Address delivered under the auspices of Sri Ramakrishna Mission Teachers' Association at Mambalam on the Health Day of the Education Week on 31-10-'27.

and efficient vital organs. Physical fitness connotes efficient functioning of all parts and organs of the body. It implies good health but health can exist without physical fitness. In the recruitment for the army, the police and other services, we know that many applicants who consider themselves perfectly healthy are rejected as being physically unsuitable. Even in a country like Great Britain, the deplorable state of the physical fitness of the adult population was brought out in the examination of the recruits for the army services during the last Great War and, since then, vigorous steps have been taken to raise the standard of physical fitness of the nation from what was considered to be a C_3 position to the A_1 grade.

Physical Education in the Educational System.

In the educational system of our country, we have long neglected physical education. But, of late, the importance of physical education has been realised and the School of Physical Education in Madras is supplying trained teachers to the educational institutions in the Presidency. The advice of employing at least one member trained in physical education in the teaching staff of every school is being acted upon. It is a good sign of the times that more attention is now being given to physical education and only a sound body can help in the evolution of a sound mind. The education which concerned itself purely with the mind and neglected the body, the hand and the heart is a mistaken system of education.

Economic Prosperity is Dependent on a Sound System of Education.

There is no longer the attitude of philosophic passivity in matters connected with education. If there is one subject on which there is a great deal of talk in the country today, it is education, its aim, ideals and methods. Educational institutions should serve the social interests of a people. They should help in nation-building. The economic prosperity of a country depends on the system of education prevailing in it. The well-being of a nation depends in no small measure on the industrial development of the country, whether it is cottage industry or factory industry. The industrial developments cannot take place in an effeminate nation. With greater prosperity and wealth in the country, we expect to find a better standard of living and better nourishment of the people and a general improvement in physical fitness. But wealth in the nation as in the individual need not necessarily tend towards an improvement in physical fitness, as was stated already in the recruitment of combatants in England during the last Great War. The realisation of the above fact gave an impetus to the study of the Science of Nutrition in England.

Higher Standard of Physical Efficiency is needed to command the respect of other Nations.

It may be doubted whether much stress on physical education should be laid in a country whose nation has been characterised as a nation of philosophers. There are those who consider this testimonial to be a compliment. But I should take it to be very uncomplimentary. The statement means that we are a set of philosophic dreamers and not actors with a realistic and practical outlook. By all means let us dream and dream for a better state of things, a higher

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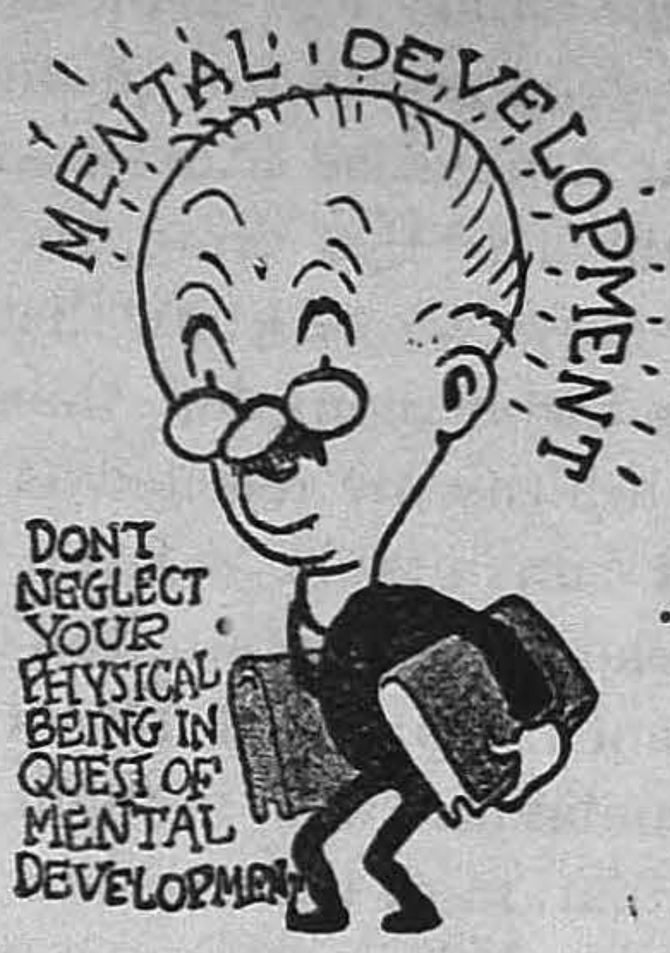
level of society, a greater control over our own affairs and a nobler aspiration in life. But such dreams are meant for action, for dynamic action and for testing in a practical manner those dreams towards a higher achievement. Physical education is necessary not only for the highly industrialised, combative, pugnacious and grabbing nations of the West, but also for the agricultural, peace-loving and easy-going and philosophic nations in the East. A philosopher will be a better philosopher, if he has a good physique and good personality. A philosophic nation can command respect from other nations, only if the general standard of physical efficiency is high.

Look to the Foundations in the Building Programme.

But the nation lives in its children. A nation-building programme must start with the foundations. The children and school-going population should be given special attention in planning for an A_1 nation. It is necessary, therefore to bestow sufficient attention also for the cultivation of the body and for its harmonious development. All talk of vocational training and industrial education would be meaningless, if physical education is neglected.

Brain, brawn and bone in proper proportions.

By all means, let us follow the old ideal of making our children brainy but we should not forget reorientation of that ideal to give them more bone and brawn. What is the use of only the brain, if we cannot enjoy life owing to want of health, or physical unfitness? Education is not only for a livelihood but also for life, not a listless life but for an active life and for the enjoyment of the pleasures of life, for the joy of living. Good health and physical fitness are therefore



Physical development is as important as mental development.

necessary for all things connected with the life of the individual and the nation.

Health Education in Educational Reconstruction.

There is no subject more discussed today than the subject of Education. There is no subject in which non-professional men evince so much interest as in Education. Many persons outside the teaching profession consider themselves competent to write, speak or advise on the remodelling, reorganisation and reconstruction of the existing system of Education. Much has been said and a mountain of literature has grown on Education—primary or elementary education, secondary education, pre-university education, university education, technical or vocational education, religious instruction in schools, medium of instruction in the vernacular, introduction of Hindi as an additional language, physical education etc., but I am afraid that very little mention is made about Health education in schools, very little attention is paid

for the medical inspection of school children and no thought is given to the soil in which the plant of knowledge is to grow, blossom and bear fruit.

Our Conception of the Child

The child is not a mere lifeless receptacle for knowledge. It is not an elastic bag for stuffing with odds and ends of certain ascertained facts, historical dates and geographical names or unproven theories or philosophical speculations. It is not mere clay which the teacher can fashion in any manner he likes. The experienced teacher will tell us that even though he had tried his best to mould a group of children according to a particular design in his mind, he realised the futility of the attempt, because the children turned out to be different from the pattern which he intended, each one different from the rest. There is nothing for astonishment at the result. The teacher was not handling clay, a receptacle or a bag but was trying to make impressions on a living personality, to draw out the reactions of that personality to the stimulus he was applying to it and to enable that personality to evolve, to build itself further and to grow. All personalities are not alike. The physical and mental make-up of personalities depends on many factors —such as heredity, environments, diet, vitamins, endocrines etc. It is no wonder therefore that the children grow differently under the same teacher, the same system of education and the same methods of instruction.

Just as a medical man is apt to forget that he is treating a personality and not a disease merely, the educationist ought to remember that he should conceive of the developing child as a whole and not in its parts—the hand, the head or the heart. The educationist should first put to himself the question whether the soil which he proposes to plough and in which he intends to sow is a good soil or not. If the soil is bad or barren and devoid of stamina or fertility, all the trouble taken by him to sow the seeds would be a waste. There is no use in ploughing barren sands or sowing seeds in rocky places.

Wastage in Education.

Wastage in education has been brought prominently to public notice. Such wastage is due to relapse into illiteracy. But wastage due to other causes, such as physical disabilities and ill-health consequent on the strain of education telling on health, insufficient attention to physical education, want of medical inspection, insufficient or unbalanced diet of children, wrong school hours etc. has not been calculated. I may assure you that, if any statistics are taken on the lines indicated by me, the figures would be far more staggering than the wastage in the money spent on primary education as at present.

The problem of preventing this wastage in all grades and kinds of of education has not received the attention which it deserves. The problem has to be attacked from various angles and by many different methods. Among these, I consider that the nutrition of the child in the school and of the college student is the most important.

Importance of Nutrition for Health and Physical Fitness.

The body cannot be built up without proper nutrition. Health cannot be maintained on ill-nourishment. Physical fitness cannot be attained on ill-balanced diets. All attempts to

improve the existing system of education, to remould it to suit Indian conditions, to reconstruct it according to the recommendations of the New Education Fellowship, will be frustrated, if the facts regarding the newer knowledge of nutrition fail to receive proper attention and appreciation by the public, the educationists and the governments.

It has been universally acknowledged in this country that the health of the school-going population has considerably depreciated and the general standard of physical fitness has been gradually coming down for many years. The health and physical fitness of the people as a whole in India are deplorably bad. Infantile and maternal mortality and general mortality rates are highest in India. Deaths from preventable diseases are very high. Tuberculosis is on the increase. Expectation of life is very short compared with the figures for other progressive countries. The one major cause for this state of affairs is the poverty of the country. I am not proposing to speak on the problem of poverty today nor do I feel competent to do so. I shall rest content with pointing out that the poverty of the country is the main cause of the malnutrition of the nation and that malnutrition is the most important among the predisposing causes of a large number of diseases and the cause of the backwardness of the people, industrially, economically and materially.

Factors concerned in Health.

Malnutrition can be brought about by insufficient quantity of food or by improper quality of food from the nutritional point of view. Health and physical fitness depend also on other factors, such as heredity, habits of life and exercise. But I shall take up only the subject of food for this evening's address, because, nutrition is dependent on food supply, its quantity and its quality.

The Problem of Food Supply.

The question of food supply is a big problem and is related also to the economic conditions. How the starving millions can buy more food and how to raise their standard of living are problems for the Government to solve. Augmentation of food supply is dependent on better methods of scientific agriculture, better live stock, improvement in dairy cattle, increase in dairy products, prevention of indiscriminate cow slaughter etc. It would suffice my purpose, if I indicate that the problem is a very big one and cannot be tackled unless the various departments of Government such as Agriculture, Veterinary, Engineering etc. co-operate and take concerted action.

Importance of the Study of the Science of Nutrition and its Application.

There is no use however in my talking to the person who has no food or very little food to eat on the subject of nutrition. But the essentials of the science of nutrition is all important to those who have sufficient means to buy their food, if they desire to maintain themselves in health and efficiency. The newer knowledge of nutrition is specially important to those who bring up children and to the educationists who handle children, boys and girls during the period of their growth to adolescence. The demands of the growing young are somewhat different from those required to maintain the adult at a uniform level.

Even though most of us learn to

earn a living, very few of us learn *how to use our earnings* in the proper choice and preparation of our food. Most of us take food for the satisfaction of the appetite, little realising that well being consists in many things besides the satisfaction of the appetite. To achieve a state of well being, there must be perfect health, proper growth of the mind and the body and the active employment of both the mind and the body in useful work, which interests the individual.

Hygienic Rules of Life.

To lead a healthy life, we have to observe certain hygienic rules of life:—(1) to practise personal cleanliness; (2) to live in clean surroudings; (3) to breathe clean air; (4) to drink clean water; (5) to properly use sun light; (6) to engage ourselves in healthy and useful occupations which interest us; (7) to think clean thoughts and follow the paths of righteous conduct; and (8) to eat with moderation, food of the right kind and quality.

(To be continued.)

INFANT FEEDING

By Dr. Debendranath Banerjee,
B.A., L.M.F.,
P. O. & Village Pantihal, Dt. Howrah.

A NEWLY born child is quite helpless and it is the duty of the mother or her attendants to look after the body and to take proper care of it. For the proper nourishment of the infant the mother is supplied with milk in her breast which alone can give all the ingredients which are required for the growth of the body and development of power, both physical and mental. For the first two days the infant passes maconium which is a viscid, dark, greenish black, odourless material. When the maconium has been evacuated the baby requires food but Indians are very ignorant about it. As soon as the child is born, the attendants are ready with milk sometimes diluted, sometimes pure and condensed to feed the new comer, with the false idea that the child will develop in a short time. The function of liver is not well established until and unless the whole maconium has been excreted, so intake of milk or any food at this period does more harm than good. Milk generally comes in the mother's breast on the 3rd or 4th day. I think it is the will of God that the child must starve for that period; otherwise, He would have given milk in mother's breast with the birth of the infant. In the dominion of God there is no place for discrepancies anywhere.

The child loses weight for the first three days owing to the evacuation of maconium and urine but it is doubly compensated within a few days after the establishment of full mammary activity.

Though the breast does not secrete any milk for the first two days, it is required that the child should be put to the breast at regular intervals as it exerts some stimulation upon the secretory gland of the breast, which serves two-fold purposes—(*a*) it maintains the full activity of the breast later on, otherwise the breast will be sup-

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plied with scanty milk and the glandular activity does not last long, (*b*) it helps the involution of the uterus by causing contraction of the uterus reflexly.

The only food which may be safely given to the child is pure honey. It is enjoined in the Ayurveda also. It is to be given in moderate doses such as ten to fifteen minims per day. Honey in moderate doses has manifold utilities.

(1) As a laxative it helps the evacuation of the maconium in a short time.

(2) As a heat-producer it maintains the body temperature.

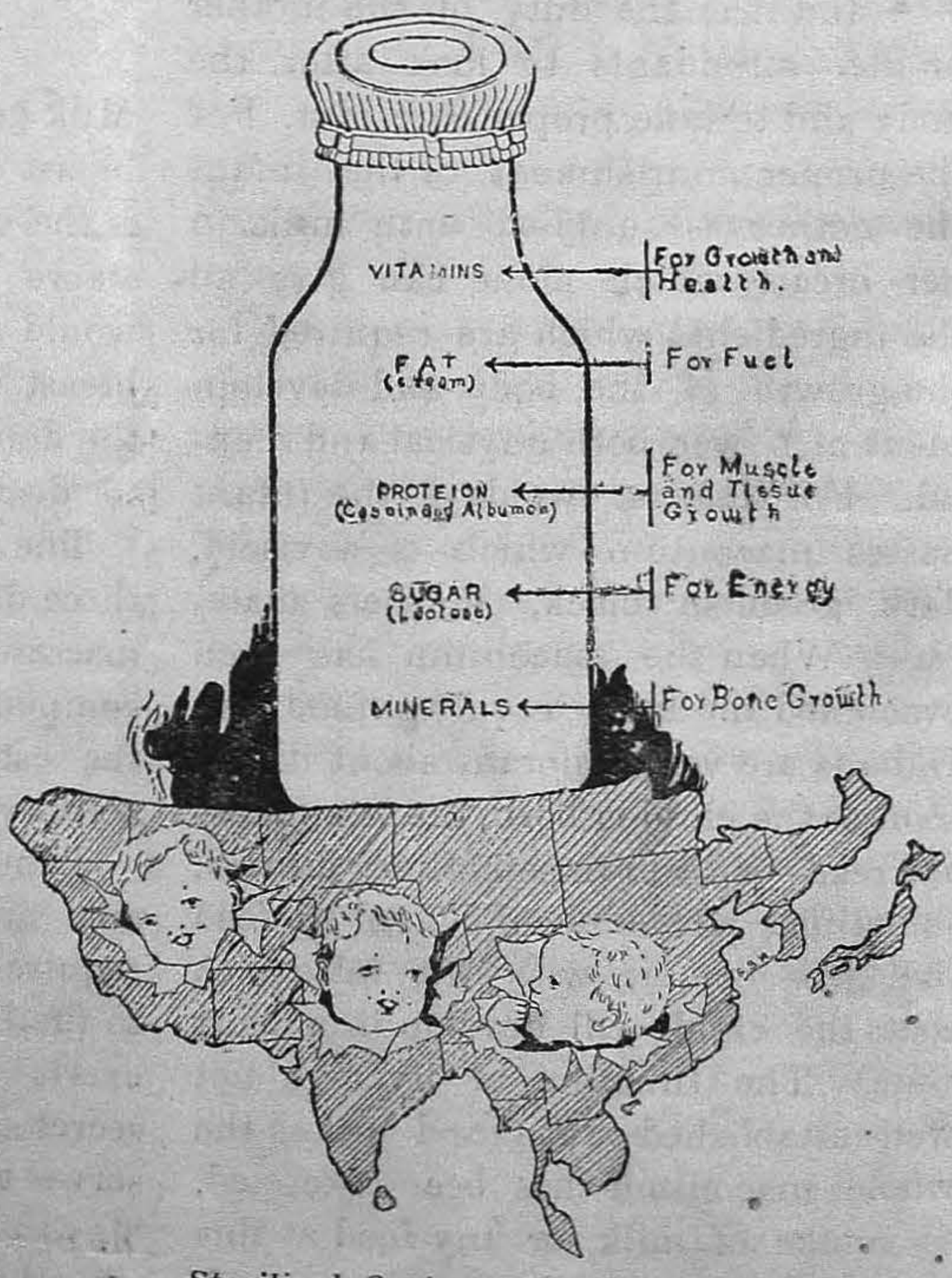
(3) As a sweet food—it appeases the child when crying.

From the 4th day onwards the child should be put to the breast at intervals of four hours during day and six hours during night. In no case the child should be put on to the breast for more than fifteen minutes at a time, because it may overfeed the child which will be injurious to its health. For the first few months artificial food should be avoided as far as possible. There may be cases where mother's milk should not be given to the child—as active pulmonary tuberculosis, in compensated heart disease, acute Influenza, chronic renal disease, pernicious anaemia etc. There are certain infantile conditions also which interfere with breast feeding as cleft palate, hare lip, prematurity of the baby etc. The best substitute for mother's milk is the milk of any woman who is generally called a wetnurse, but in selecting a wetnurse special care should be taken as regards her health and habits.

The next substitute is cow's milk, which is generally given to all the infants from the very first day of its birth. The general difference between cow's milk and human milk, is shown below.

	Human Milk	Cow's Milk.
Specific gravity..	1028 to 1034	1032
Proteid ...	1 to 2%	3.5 %
Fat ...	3 to 4%	4 %
Sugar ...	6 to 7%	4.5 %
Salts ...	0.1 to 0.2%	0.7 %
Reaction ...	Alkali	Acid.

"Ass's milk more closely resembles human milk in composition, not only as regards the proportions of its elements, but, also, it is believed in the digestibility of its proteids." (Eden). But it is costly and is not always available. Goat's milk may also be used.



Sterilised Cow's milk is safe milk.

Proper sterilisation of milk should be made before feeding the infant,—and boiling is the best way of sterilisation but it destroys the anti-scorbutic vitamins, but grape or orange juice may supply the loss of it. The cow's milk can be approximated to that of human milk in the following way. Dilute one part of milk with two parts of water,. and add cream and lactose to the diluted milk in order to bring up their proportions to the proper level. Some prefer using Albulactin with milk in order to make it resemble human milk.

Where pure milk is not available artificial food may be given with great caution. The following foods have got reputation in the market :—Horlick's Malted Milk, Glaxo, Ovaltine etc. Sago and Barley may also, stand poor substitutes for milk.

Intestinal ailments of infants are solely due to over-feeding or feeding indiscriminately. Now-a-days infantile liver is very common and it seems to me in most cases is due to over-taxation of liver by food which the infant cannot assimilate properly. In most cases where the infant suffers from intestinal trouble, bowels should be properly evacuated by suitable drugs such as castor oil or Hydrag. Subchlor in small doses. If from very infancy a child receives regulated diet, he will no doubt grow to be a man of strong physique free from digestive trouble.

DRINK

—By Prof. R. C. Motvani,—
M. S., F. C. P. S.,
Grand Medical College, Bombay.

The best thing for drinking is water. The water may be obtained from rivers, tanks or wells. The best water supply is from deep wells or deep springs, as water therein has percolated through various strata of sands and earth and become purified in the process. Water from rivers, tanks and shallow wells is very risky to drink, as all these sources are liable to contamination from excreta, dead and infected matter. The best way to render water from these sources potable is to boil the water and cool it. The metal pot for boiling water should preferably be utilised only for this purpose, otherwise taste of water is apt to be modified by other cooking material. At the end of day and night meals, when fire from segree or fuel is available, one can keep the water for boiling. Twenty minutes boil is enough. By this all the germs are killed and sediment collects at the bottom. The water can then be kept for cooling in the same pot. After about 6-8 hours, it can then be transferred to an earthen pot, where it will cool down and because of porous earthenware pot, it will gain back its aeration and taste.

For those, who want something to appeal to their taste and at the same time desire for some nourishment and adjuncts in digestion, I recommend the addition of fruit juices and sugar to the drinking water. I have never considered ordinary or best aerated water coming anywhere near the fruit juices. The cheapest and the best is the lemon squash. I can also suggest juices of

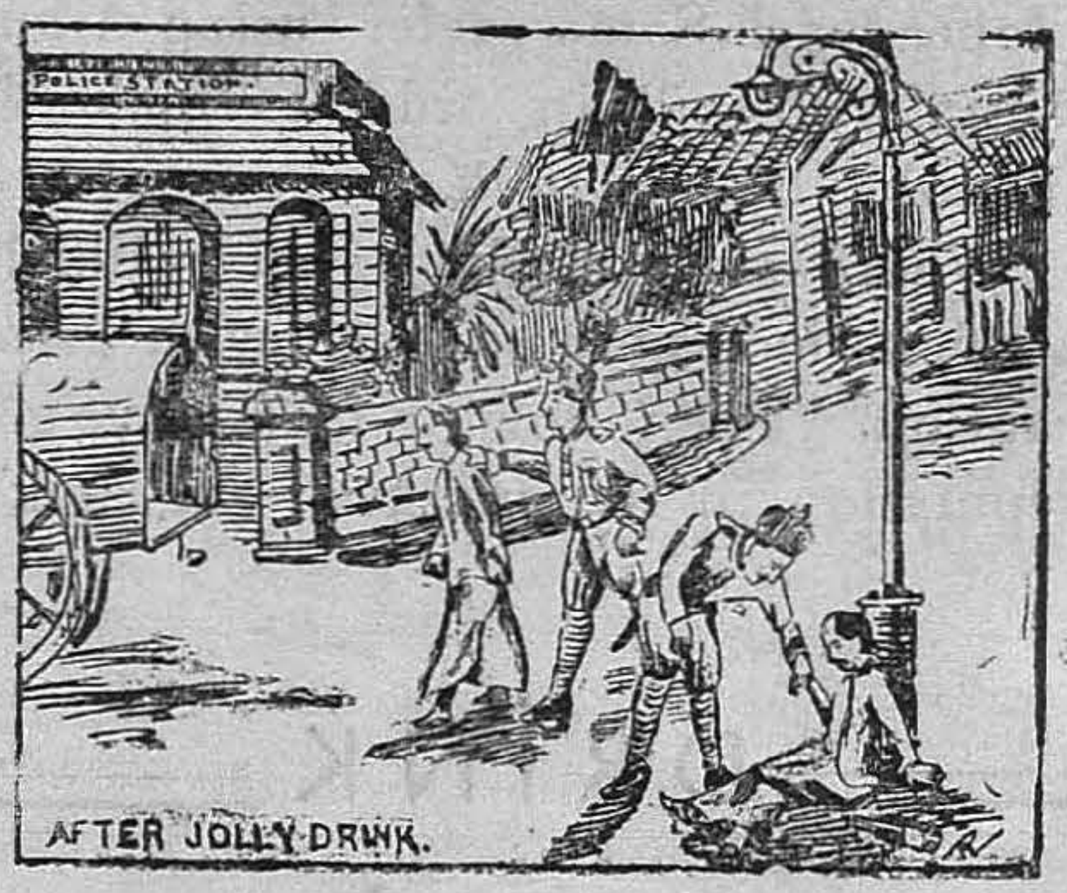
sweet limes, oranges pomegranates, ripe mangoes, sugarcane, water melon. One of the very nourishing drinks is emulsion made with almonds. Cocoa-nut juice is very light and cooling.

I very much wish that vendors, instead of investing in aerated drinks, which in my opinion have nothing to recommend them, utilise these natural fruit juices. As a result, a great industry will arise and at the same time standard of health of the nation will be raised. The fruits have mineral salts, vitamins and fructose or allied sugar. Milk and barley water, with sugar is cooling and a nourishing drink.

Among the spring and mineral waters, there are several having medicinal properties, *e. g.*, Vichy, Hunyadi-janor and Evian. Unfortunately, the Indian spring-waters have not been investigated nor their medical and thermal value assessed.

The hot drinks are favourite in cold season, but their use is often abused. If anybody tries to make good use of Tea, Coffee or Cocoa, it will be very helpful to fill $\frac{3}{4}$ of a cup with milk and then fill the remaining part with drinks of one's choice, *e. g.*, Tea, Coffee or Cocoa. All the bad effects of these drinks are due either to consuming these in too large quantities or in strong concentration. If used in moderation, these do help in removing the fatigue and supplying a pick-me-up.

Lastly, I would touch upon the question of alcoholic drinks. One is a best judge about the use of these drinks If one feels depressed, sluggish or gets headache next morning after the use of alcohol the previous day, it is certain that the drink is of no good. As a rule, I feel that continued use of these drinks damages the organs beyond repair, however moderate the quantity. One can never however absolutely deny the good effect of alcohol in medicine. For instance, I have never seen anything so helpful



in aborting an attack of common cold as the following combination. One tablespoonful of whisky or brandy, one tablespoonful of honey, one egg and a cup of milk prepared as follows: Beat an egg with honey and whisky, add milk gradually. In cases of cholera, I have often succeeded in conserving the energy of the patient by giving iced whisky, brandy or rum, when nothing else seemed to be retained.

In emergencies, in collapse, alcohol does help to revive before the Doctor is available on the scene.

Important Notice to Eye-Sufferers

— By Dr. Manohar Lal Kapur, —

Ophthalmic Surgeon, Civil Hospital, Kaithal.
District Karnal, Punjab

Glaucoma.

GLAUCOMA is commonly known as *Neela Pani* or *Kala Motia* in India. It is the most dangerous disease of the eye and if not treated in time it ends in total loss of vision which cannot be restored by any treatment. The disease is generally common between the ages of 40 to 60 but may be met with in persons of earlier age.

Glaucoma makes rapid strides among persons who have a weak near vision. The disease is seldom met with among persons suffering from myopia in whom the near vision in good.

It is generally caused by worries, anxieties and excessive mental work. Experience has shown that women are more affected than men by this disease, which can be explained by the fact that the women weep day and night over the deaths of their near relatives resulting in congestion in their eyes, which is the beginning of the disease. This disease is, in no way, causing less havoc than plague, cholera and smallpox; for the sufferers, who through this disease become totally blind, are considered worse than dead. They become a burden to themselves and their relatives. When a man dies due to any disease, his near relatives gain the strength to bear the bereavement as time passes, but the pitiful sighs of a relative at all hours, who lost his sight for good, are intolerable and make his relatives restless. If a census is taken of such sufferers it can be said without exaggeration that their number would be no less than several lakhs in the Punjab Province.

Our responsibilty is grave when we realize that this disease can be checked by proper treatment at any stage before the loss of the vision in each eye. Our benign Government has opened a large number of hospitals and dispensaries at small distances but people through ignorance do not avail the golden opportunity offered to them, and become victims to this disease. They thus lose their vision in both eyes and become a permanent burden to the Society. It is the duty of all educated persons to prevent their relatives, friends and neighbours from falling into the clutches of this disease which, if not treated in time, ends, in total blindness. It can be said without exaggeration that in countries where people understand and care for their health, the victims of such a disease can be counted on one's finger's tips.

How the Disease can be Diagnosed.

Glaucoma frequently commences with transient attacks of dimness of vision, uneasiness in the eye amounting in some cases to supra-orbital pain. There is increased tension of the eye-ball. The pain in the temporal region followed by a redness in the eye and in bad cases œdema of the conjunctiva, sometimes causes vomiting which an inexperienced man may be led to a mistaken diagnosis of gastric disturbances associated with a cold in the eye. The attack may last for an hour or so but often continues for

several days and then passes away leaving the patient's sight perfectly clear. Relapses generally occur either within a fortnight or within a month. These symptoms become more pronounced, the attacks more frequent and the tension of the eye-ball becomes decidedly and constantly augmented, the pupil in the affected eye gets dilated and does not respond to the stimulus of light. When the attack is over, the patient experiences dimness of vision. If no proper treatment is done to check this disease, the relapses completely destroy the sight of the affected eye. From practical experience it is known, that the second eye possesses normal vision for about one or two years after the first is lost, and after this period is totally destroyed with or without pain in the temporal region.

During this interval most of the patients seek consultation at hospitals which are popular for eye-surgery. They generally demand cure for the vision of the lost eye and when it is made known to them that the lost vision of their eye cannot be restored, but their other eye, which appears today to be normal to them, is also in danger and may be lost with or without pain after a short time, but can be saved for ever by operative treatment, they turn deaf-ears to the advice and leave the hospital under some pretext but to their great misfortune they get up one morning and find themselves totally blind from both eyes They lament and lament after recollecting the advice given to them by the doctor not long ago, but it is useless to cry over spilt milk.

If the sufferer cannot for some reason or other undergo an early operation to check this disease, he should use the following eye-drop every two hours during acute pain and twice daily for one week after the pain has subsided. Once a week after this period :—

℞

Pilocarpine nitrate	...	grs.	4
Aqua distilled	...	℥	1

A strong purgative should always be taken when the first signs of acute pain in the temporal region starts and subsequently even the bowels should be kept regular.

The sufferer should as far as possible go to a hospital near his station and consult a doctor and follow his directions. It is very essential to eradicate this disease from this country and this can only be done if all educated persons think it their foremost duty to save their friends, relatives, and neighbours from getting blind by impressing upon them the signs and symptoms of this disease and its dangerous end, if proper treatment is not resorted to in time.

Vitamin E Against Absorption

The richest source of Vitamin E is the oil of wheat germ, and from various reports it seems to be efficient in preventing habitual abortion. Some women—even non-syphilitic—may conceive frequently, but be unable to carry the child to term. Such women should be given Vitamin E.—Critic and Guide, Oct., 1935

The Use of Mosquito Nets as a Prophylactic Measure against Malaria

— By R. Sundaram, M.B., B.S., —

Asst. Surgeon Public Health, Travancore State.

THE bed-net is a device to prevent mosquito bites. Bed nets are now in use throughout the Tropics and although they add to the discomfort of the user, yet they afford excellent assistance in malaria prophylaxis. They are by far the most effective of all preventives for the average man in a region where malaria is prevalent.

To be of value, it is essential that bed-nets be used with care. Certain precautions useful in the making and use of a net may be noted as follows:

1. First and foremost, the size of the mesh is important. The optimum is that size which is just small enough to exclude mosquitoes Cotton netting having 24 to 26 holes (counted along a line of the warp and woof per square inch of netting) made of what in the trade is called 40"/60" thread will exclude all malarial mosquitoes in the Tropics. A smaller mesh tends to affect ventilation inside the net and a larger one will let mosquitoes pass through.

2. It is always advisable to use light coloured netting as mosquitoes are more easily seen against such a background.

3. The top of the mosquito net should be of netting for the sake of better circulation of air. The bottom of the net should be made of strong calico or longcloth at least 6 inches broad.

4. The shape of the net requires attention. Conical-shaped net is disadvantageous as it tends to diminish the column of air inside the net. It should by preference be rectangular. No opening should be provided in the net for entrance or exit. To enter a net the bottom should be lifted carefully and one should enter quickly. No part of the net should come against the sleeper.

5. Nets should not hang or sag loosely. They should be tucked under the mattress continuously all round. They should be put in place before dusk and searched for stray mosquitoes.

6. The top of the net should be at least three to four feet above the bed. When a four-posted bed is used the net is hung inside the posts.

7. When not in use, it should be put up by twisting together all the hanging portions into a coil and throwing it over the top of the net or frame.

8. In India, where many cannot afford to have mattresses, there is nothing under which to tuck a mosquito net. In such cases it would be advisable to use a closely woven mat to cover the surface of the bed. Then a mosquito net may be used that has tunnels at the level of the bed parallel to the four lower edges of the net. Through these tunnels bamboo sticks may be passed which will keep the net in a taut condition instead of loosely hanging on the floor. Or, the tunnels may be weighted with stone.

The effectiveness of protection will depend on the care exercised by the individual in attending to each one of the above mentioned details.

• Topics of Interest from Health Periodicals • •

Goat's Milk in Infant Feeding.— For centuries, goat milk has occupied a prominent place in the dietary of many foreign countries, and has recently come under careful scrutiny by students of nutrition in this country. Attention was first attracted to it because of the fact that it was not a bearer of the tubercle bacillus.

Goat milk compares favourbably with cow's milk and breast milk in its food content. It has about the same fat content as each of these and in a form very nearly like that of human milk. The fat in goat milk is finer and is in the form of oleates which are liquid at body temperature, while that of cow's milk is mostly stearates which are solid at body temperature, The fat globules of goat milk are intimately dispersed throughout, will not rise to the top and cannot be separated by the centrifuge.

Marriott states that the chief indications for goat milk are in the care of infants who are sensitive to the protein of cow's milk and develop asthma, urticaria, eczema or other allergic manifestations when cow's milk is fed. Some of these infants can take goat's milk without showing manifestations. —*American Medicine.*

The Ideal Chapatti. — Nutrition Research: One Anna Recipe.—A recipe for a nutritious *chapatti* suitable for out-door workers in India, has been evolved by the Nutrition Research Laboratories at Coonoor.

A manual labourer needs at least two good meals a day. It is often impossible for him to return home to consume his mid-day meal and he cannot afford to eat in a hotel even if one were available.

The meal, therefore, which he takes with him, should be sufficient in quantity and well-balanced, that is, it should contain the essential nutritive elements in correct proportions. It should be cheap, made of easily obtainable foods, and be simple to prepare. It should be easy to carry, that is, it should be solid to avoid the possibility of spilling, small in bulk, and not require a special utensil to contain it, and should also remain fresh and palatable for a number of hours.

The Ingredients.

Such a *missi chapatti* fulfilling all these conditions may be made from the following ingredients :—

Whole-wheat flour—10 ozs. or 5 chataks, Bengal gram flour—$2\frac{1}{2}$ ozs. or $1\frac{1}{4}$ chataks, Onions—$\frac{3}{4}$ oz. or $\frac{3}{8}$ chatak, Fenugreek leaves (or any other green edible leaves)—$\frac{1}{2}$ oz. or $\frac{1}{4}$ chatak, and ghee or butter—$\frac{1}{4}$ oz. or $\frac{1}{8}$ chatak.

These constituents, except ghee, are mixed, water being added and the whole kneaded into a dough. *Chapattis* are made from the dough in the ordinary way, good thick *chapattis* being recommended, since these remain fresh longer than the thin ones. Subsequently ghee is smeared on the *chapattis*.

The weight of this meal is about 1 lb. or half a seer; it will supply about 1300—1400 calories, which is approximately half the daily requirement of a labourer, and about 50 grammes of protein. The mixture

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contained in the *chapatti* is rich in vitamin and mineral salts.

If fresh milk cannot be obtained, *khoa* or skimmed milk powder can be used. For those who can afford it, the addition of a greater quantity of milk or an egg to the dough is recommended.

Such a meal is easy to carry folded in a broad leaf or wrapped in paper. It remains fresh and palatable for a number of hours and can be eaten with no accessories except water. Its cost is about 1 anna. It can be recommended for travellers and for picnic parties, as well as for out-door labourers.—*Govt. of India, Informative Series, Vol. I, No. 5, 30th Oct. 1937.*

Constipation in Old Age. — Dr. Parkes Weber discussing in a *Practitioner* article the condition, *especially in old age,* observes that the sequence is usually a sedentary life, a diet of small bulk, poor in vitamins, and with little fruits and vegetable, then the resort to purgatives, which together with the irritation of hard fæces damage the colon, the signs of toxæmia finally appearing. Such is the clinical history we are told of the elderly person who has been long accustomed to open the bowels every other day with purgatives. Naturally, fatigue or somnolence of toxic origin follows each act of defæcation when the damaged colonic mucosa admits further absorption of toxins from the abnormal amount of fluid content of the lower bowel always there What the author specially advocates for treating the constipation of age and escaping its results is the taking of *bran* (not of the crude kind) but in the form of two large table-spoonfuls of Canadian "All-Bran" with each of the three chief meals daily. The quantity may be reduced when regularity is achieved, but a sufficiency of fruit and vegetables should be combined. Dr. Weber observes that some individuals may find much benefit in replacing one of their meals with apples or bananas, or even in having an entire "fruit day," but *in any case* "All-Bran" has great advantages over the large bulk of brown bread usually advised—*Medical World.*

Fasting : By A Medical Man.—As was to be expected during the Lenten period, fasting formed the basis of a number of prominent newspaper articles by medical and other authorities. A few of these wrote on the religious aspect of fasting, but most discussed the subject from the point of view of health.

In an article which appeared in the Manchester *Daily Despatch*, the Medical Man said : "You may take it as fundamental that fasting is a sound principle of hygiene. Just as eating and drinking to excess form part of nearly every ceremony and festival recorded in ancient history, so we find that fasting for days, and sometimes even weeks, on a specialised diet, followed as an appropriate aftermath, affording relief to stomachs and livers overloaded with a surfeit of rich fare."

The Medical Man's closing paragraph contained a sound and practical suggestion. He said : "I believe that Lenten fasting is of general benefit to those who take part in it, but I would prefer, speaking as a medical man, to see, instead of a rigorous six weeks, fasting days, when meat and meat extracts are excluded, spread at the rate of one or two days a week over the whole year."—*By Observer in 'Health For All'.*

Health Tit-Bits

Why Man is Sick.—"Man is the sickest of all animals, because unlike every other animal, he eats when not hungry, drinks when not thirsty, and makes love at all seasons".—*A French Proverb.*

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Dietician.—"The dietician of to-day will become the doctor of to-morrow if the doctor of to day does not become the dietician of to-morrow." — *Dr. Alexis Carrol.*

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Children's Problems.—Many whom the fanatical evolutionists would regard as the physically unfit, are really the victims of a bad environment, improper feeding and neglect

Nothing has better influence on children than praise —*J. H. Marcus, Med. Record, December 4, 1935, p, 514.*

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Mohammed As a Health Teacher.—Mohammed, though generally believed to be a religious fanatic, nevertheless left in his writings many wholesome teachings in relation to health. Dinguizli, of Tunis, one of his followers, cites the following quotations from Mohammed's writings:

"The study of the science of the human body shall be given the preference over the study of the religious sciences. . . . "If it were not for that fine dust which we see floating in the sunbeam, and if it were not for the danger from stagnating waters, Adam's son would live ten centuries." —*Good Health (U. S. A.)*

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The Care of Artificial Teeth.—Scrub the plates with a good tooth-paste or common soap and hot water at bed time. When clean and free from all organic matter they are then immersed in methylated spirit and remain during the night. — *Medical World.*

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The Value of Iodine.—Persons living in or travelling to flood areas where the water supply may be polluted temporarily can assure themselves of a safe drink of water by adding a drop of iodine to each glass of water. The ordinary tincture of iodine for first aid treatment of cuts does the trick of destroying typhoid fever or other harmful germs. A drop will make as much as a quart of water safe for drinking.

The value of iodine for this purpose was discovered by Major A. P. Hitchens of the U. S. Army Medical School.—*The Doctor & Od Quarterly.*

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Invalids Leisure.—A patient can assist greatly towards his own recovery if his morale is good and his outlook on life cheerful and optimistic. It is therefore of the utmost importance, in caring for the sick, to provide invalids with some constant form of distraction instead of allowing their thoughts to dwell on their own suffering and anxieties, and their eyes on the four walls and daily routine of the hospital ward. This is more than ever necessary in the case of mental patients, who must be taken completely out of themselves and delivered from their morbid obsessions.—*Journal of the Red Cross Society.*

• Subjective Mental and Physical Reactions to a free fall in Space.—From a study of the subjective reactions to a free fall of approximately 1,200 feet in space, made by means of a delayed parachute jump, Harry G. Armstrong, Dayton, Ohio (*Journal A. M. A.*, Oct. 5, 1935), concludes that: 1. In a free fall in space the mental reactions are normal, except as influenced by fear, excitement or other factors not attributable to the fall. 2. In a free fall in space there is produced only one abnormal physical sensation and this consists of a very gentle, evenly distributed generalized superficial pressure on the downward surface of the body. 3 There is an apparent diminution of hearing acuity from an undetermined cause. 4. Position in space and motion through space are recognized solely by means of vision. 5. Depth perception acuity is such that a speed of approximately 100 feet per second at a distance of 1,900 feet from an object is required to recognize motion toward that object 6. Delayed parachute jumps are an entirely practical means of avoiding certain highly hazardous aerial situations.—*Medical Times.*

• Book Reviews • • •

Isaiah.—*By Margie Austin Cole*, Published by Christopher Publishing House, 1140, Columbus Avenue, Boston, Massachusetts—Price $.1.50 Nett.

The central thought in Christianity is the idea of God's revelation of Himself, with its culmination in Jesus Christ. The author of this work takes up the idea, that is so clearly set forth in Biblical texts, of God's continued revelation to man, the method and ways of this revelation to individuals, in a most enlightening and helpful way.

It is a thought-provoking book, written in a reverent spirit, with a message of good-will that brings ample reward to the reader.

The Conversion of Mr. Banks or A Little Child Shall Lead Them—*By William S. J. Dumwill*—Published by Christopher Publishing House, 1140, Columbus Avenue, Boston, Massachusetts, Price $. 1.25 nett.

This is a dramatic, and decidedly heart-stirring narrative of a man who suddenly realized that the truths of the religion, he had been "believing" all his life, were something that he could and must take not only as belief, but as the actual rule of his every day living. This may sound more or less obvious and commonplace, but Mr. Banks found that such literal practice of the tenets of religion may produce the most dramatic results; certainly Mr. Banks found that this practice quite thoroughly revolutionized his life, from the hour that he began.

"The Conversion of Mr. Banks" is an exceptional work, that will give its readers something new to think about or if not new, something that becomes new because of the author's dramatic presentation.

Child Labour, and the Nation's Health.—*By Dr. S. Adolphus Knopf*, Published by Christopher Publishing House, 1140, Columbus Avenue, Boston, Massachusetts, Price, 50 cents.

Dr. Knopf is an American physician of international reputation and well-known by his several text-books on tuberculosis in English, French, and German, and his numerous contributions to medical and lay journals on subjects such as diagnosis, prevention and cure of tuberculosis, diaphragmatic respiration, hygiene, eugenics, birth control, medico-historical and psychological subjects, and cremation *vs.* burial, etc. He is the author of this work dealing with child labour in its relation to tuberculosis and the nation's health at large. His conclusions are based on many years of experience and research as a general practitioner, tuberculosis specialist, hygienist, and sanitarian. The work is intended as much for the lay world as for the medical profession and written in simple non-technical language. We heartily commend this book to our readers.

Your Body—How it is Built and How it Works.—*By D. Stark Murray*, B.Sc., M.B, Ch. B., Published by Watts & Co., 5 & 6, Johnsons' Court—Fleet Street, London, E.C. 4. Price. 1 *sh.*

This little book of 115 pages treats of the evolution of man and the physiology of the human body in a manner that can be easily understood by even the dullest of intellects. It is an admitted fact that only one out of ten in the whole world knows anything about the structure and functions of his own body and no wonder, there is so much of sickness and suffering in the land, resulting in premature decay and untimely death. The author has converted an abstruse scientific subject into an interesting reading material, thereby enabling the reader to grasp the subject more thoroughly and more quickly than otherwise would be the case. The book consists of 12 chapters. Chapter 1 treats about the Amoeba or the living protoplasm from which have developed all forms of animals up to man. Chapter II compares the body to a machine and shows how more wonderful this machine—the human body,—is than the man-made machine. In Chapter III, the principal organ in the body—the heart—is dealt with and in the succeeding chapters IV to IX, the lungs or the respiratory system, the stomach or the digestive system, the kidneys connected with the eliminative process, the blood or the circulatory system, the message bearers, or the nervous system are described. Chapter X deals with chemical controllers such as thyroid and other glands The bones are dealt with in Chapter XI. The twelfth and the last chapter deals with the multiplication of the species. The book is profusely illustrated. This book must be in the hands of every school boy and can profitably be prescribed for non-detailed study in High School classes.
