A Journal Devoted to Healthful Living

HEALTH

ESTD. JAN. 1923

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Annual Subscription: Rs. 2. Foreign—Rs. 3. Post paid.

Editorial and Publishing Offices:—
323-24, Thambu Chetty Street, George Town, Madras.

Vol. XIX. | NOVEMBER, 1941. | No. 11.

EDITORIAL

OLD AGE

THERE are four periods in a full life; the period of growth in the womb of the mother, the period of growth into a full man, the period of sexual activity and the period of decay. The first two periods are the periods of *making* the manhood, and the last, of *unmaking* it. Thus, here are really two periods in every life; making and unmaking, or the *growth* and *decay*. Like everything else in this world, these periods too have got their own limits. The limit of the period of decay, or unmaking, is death. And what is the limit to that of making or growth? There is no limit to growth as such. For, the embryo grows into the child and the child into the man, and the man multiplies himself into progeny (for multiplication is also growth), and thus it has no end; whereas, the physical growth has a limit in time and physical dimensions.

The average time, for instance, which a human child takes to grow into a full-grown man is 22 years. After this and before the onset of senility, there is an interval called manhood which gives the clue to find out the purpose of the physical growth. It is in this period that self-multiplication mainly takes place. This must be the main purpose of the animal growth, as all other activities are variable.

The orginal body is called '*Old*' because there are new bodies created by it, *viz.* progeny. Until the first act of reproduction is done, the body, whatever may be its age, is not '*Old*'. Thus, old age sets in with the setting in of new ages namely *progeny*, both physiologically and psychologically speaking. One gets as much old as the many new he begets. With the last and the newest issue, he gets oldest.

Apart from this definitional conception of *senility*, it can also be proved that the onset of senility is due to the previous excessive sexual activity. What is accumulated during childhood is spent in the period of expenditure, manhood.

In certain cases, the period of

expenditure is shorter and in others longer. This is decided partly by heredity and partly by individuality. Heredity provides a certain momentum of velocity of metabolism in the cellular and sclerous tissues and longevity is determined by it. Whatever may be the actual measure of velocity of metabolism, old age can certainly be postponed *if man is careful in spending the same during man-hood.* Therefore, it is not the age that indicates the onset of old age in men. Even at 65, one may be as active as another of 40, and he must be called a man and not an old man. Because, the unmaking of man has not yet begun there. But this is not the case with women. Generally, between 40 and 50, the climacteric happens in them and senility decidely sets in thereafter.

While thus the *real* cause of old age is the bringing forth of new bodies, there are many *instrumental* causes that hasten and worsen it. The chief of them are worry on the mental side, and immoderate living on the physical. It may be emphasised again that these are not the *real causes*; for, even in their absence, other animals are also subjected to old age. Worry is particularly absent in their lives, and the only kind of immoderateness of life is that imposed on the domestic animals by man. But what these two factors bring about in man is the appearance of otherwise unnecessary diseases and complications during old age, making it wretched and intolerable. It is this period of old age that should be guarded against. The early old age is far better and in many ways enviable, as it is the epitome and embodiment of ripeness, mellowness and maturity of wisdom, of the accumulated weight of experience and observation, contemplation, quiet thinking and creative possibilities. It is, perhaps, this kind of old age that Cecero is said to have highly written of. But the old age commonly met with is that in those who are miserable and marred, wasted and wrinkled, thin and lean, bowed and bent — in fact, drivelling specimens of humanity, or as Shakespeare has put it, "the lean and slippered pantaloon, with spectacles on nose and pouch on side and.....a second childishness and mere oblivion *sans teeth, sans taste, sans eyes and sans everything*".

Prevention of old age, as such, is possible by removing the *real* cause, and its mitigation, by removing the *instrumental* causes. Prevention, though seemingly impossible now-a-days, is said to have been possible in prehistorical days when, such as Parasuram, Anjaneya, Markandeya and others remained immune from old age and death, simply because they did no act of reproduction mentally or physically. They are believed to be still young and have not spent their life-energy. As there was in their case, no *real* cause of old age, *instrumental* causes were automatically absent. Worry was totally absent and even excesses in life other than those of sexual nature, such as continuous indulgence in active warfare etc. could do them absolutely no harm.

These two factors, curiously enough, are quite absent in the childhood of every life and always present in the old age. That is why boyhood and student life are spoken of as the golden periods in one's life.

In these two periods, the embodied, the primordial germ plasm, indentifies itself with only one body, the somatic protoplasm. But in matrimony, two, three, and finally many more come under his care, and unless one is a highly and exceptionally practical philosopher, there is no escape from worries, anxieties, griefs, fears, ambitions, disappointments and failures. Worry is implied in all these things. All these have a direct influence on the endocrine imbalances, subsequent dysfunction of different organs including the stomach, lungs, heart, kidneys and intestines. Fortunately, mind retains its normal nature more than the body in old age.

Worry is an evil of man-hood and individuality in modern times. Much of it is really created by hereditary environment. Today, many a man wishes his heritage were better in many respects. That shows the question of efficient mitigation of old age of the present generation is closely tied up with that of its heredity. Heredity and individuality are the two sides of the same coin *viz.*, environment. The individuality of the parents and forefathers is the heredity of a man, and influences his life by virtue of its being the basis of his individuality. Now, therefore, the worry of a man should be not only about what stuff he is made of, but more about the stuff his progeny should be made of. About the former, he can simply *know*, as there remains nothing to do, and as regards the latter, it is for him to do it. He is more free to mould the future than to modify the present already made. Therefore, one should realise that the heredity of his progeny is still under formation by his own individuality, and behave in such a way as to make it possible for the future generation to live longer with less old age.

The practical steps to be taken in this direction comprise mainly mental rather than physical acts. For, the beginning of a realisation is *desire*. The desire to make the future better than the present must be there. A desire is useless if the desirer does not believe in the probability of its fulfilment. A desire with a sense of such a probability is hope which automatically expresses and grows itself in terms of efforts, struggles and realisation. So, the gap between desire and hope is the most important thing a man has to bear in mind in order to give a good heritage to his grandsons. This gap is purely psychological. One should be learned, wise or faithful enough to be able to get that sense of probability that mere desires, sincere, of course, if they are in this life, finally result in full-bodied lives in future. A man, therefore, should desire and aspire for the immunity of his progeny from old age. But his desire should begin before the onset of his own old age so that the potency of the desire may characterise the passing of the germ plasm during regeneration. It is *desire* that counts and not *actions*. Actions are determined by heredity, but desires are more under the control of the individuality. Every action is a past desire and every desire is a future action. If future is to be immune from old age, the present must be characterised by a desire for it. Desire accompanied by a sense of the probability of its fulfilment is all that is wanted to be done by a young man. This is what to do in respect of the generation yet to be born. Regarding the children one has already begot, it is impossible to bring them up away from the world of worries, unless the civilisation itself, fortunately, comes to an end.

Regarding one's own old age, the best thing to do for mitigating the senile sufferings is to accept the inevitable, to become ready to die and give place to the new, and even to welcome death. Nay, one has to technically die for all social purposes. For what is death, after all ? It is the cessation of the individuality, the So-and-Soness, but not that of either the embodied as such, or the body as such. Body is clearly perceived even after death, and the embodied is permanent. It is the mutual indentification of these two that constitutes the So-and-So-ness ; and any one who voluntarily dissociates himself with all such relations—with his property, wife and children etc. as characterise his being Mr. So-and-So, is one to whom death has occurred in reality, provided he is sincere. To him an identification with a totally new set of relations has begun, which means a new life. All worries vanish and along with them the old age. This is what is called *sanyas* a necessary last stage in every full life time, and is called a new life.

Even *sanyas* is too high a standard for the modern man. Then there is a period of preparatory unconcernedness, called *vanaprasth*, literally meaning forest life. One need not go to forest but he may treat the society itself as a forest and feel as unconcerned as possible with the social happenings. He should think of death, and not worry about it. He should discuss whether there was life after death, conclude in the affirmative like a true optimist, prepare for it, and if his life-career in manhood was so bad as to threaten the prospects of realising a better life after death, he must, at least now, hurry up making amends by doing good to others, thinking good for others and concentrating his mind on the Almighty who is kind enough to maintain the Law and Order in the Universe. Any fear of death or selfishness is a danger signal leading to high-blood pressure, indigestion, kidney trouble, chest complaints etc. Absence of worry is a negative remedy for the old. On the positive side, it must be emphasised that nothing short of a direct contact with God should be the ambition of the old.

THE HUMAN CARRIER

By DR. KHAGENDRANATH CHATTERJEE, M.B., I.M.S. (RETD.),
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It is known to all that the fleas and mosquitoes carry germs of diseases from one place to another or from one man to another, but that human beings themselves carry the germs, and spread them to others, is not borne in mind. Whenever a man suffers from an infectious disease, his body is attacked with millions of germs of the particular disease, which make their way into the interior of the body, such as the throat and lungs, the stomach, the intestines and even the blood-vessels, where they multiply and grow at the cost of their host who falls ill; and when, afterwards the man recovers from the illness, he becomes free from all symptoms of the disease and remains apparently healthy. The germs die out rapidly, but are not totally destroyed. They become very few in number and almost inactive, and therefore call truce with their human host, and live peacefully, for the time being and even for many years sometimes. During all this time, although the man remains himself quite healthy, yet, owing to the presence of the germs of his previous illness, within his body, he is called the "carrier" of the said disease, as he becomes a source of infection to his kinsmen and neighbours, who live with him in the same house, or in the same locality.

How he becomes a source of infection to others is to be understood. The germs that live within the body of an infected man, by natural process come out of the body with the saliva, and urine, fæces and other excretions of the man, and from these, may easily enter into the bodies of other men, through food or drinking water which by chance may get contaminated with these excretions. In houses, where people are in the habit of taking food from the same dish or drinking from the same cup or glass, and sleeping in the same bed with a patient, and where food and water are not carefully preserved, where utensils are not properly cleaned and disinfected when necessary, infection is likely to spread. It is said that an infected person spreads the germs of disease to ten others, at

least, who come in contact with him. Men who suffer from cholera dysentery, typhoid fever, malaria, tuberculosis and many other such diseases, are supposed to carry in their system, the germs of the said diseases for an indefinite time, unless they subject

Infection primarily starts by direct contact such as by the act of coughing or by food contact.

themselves to thorough scientific treatment from the beginning, in which case only, the germs may completely die out,and the chance of their infecting others is nil. Thus we see, that infection primarily starts from a sick man to a healthy man by direct contact *e.g.* by the act of coughing, or food contact. In a disease like malaria of course, another agent like the mosquito is required to transmit the disease. The flea is also another agent of spreading the disease. But these agents are called secondary or intermediate carriers of disease germs, whereas the human agent is the primary source of infection. For instance, if there are no malarial parasites present in the blood of at least a few men in a village or town, there is no chance of an epidemic of malaria occurring in that place however numerous might be the number of anopheles mosquitoe in that locality. Similarly, if there lives nobody, who has suffered from an attack of cholera or typhoid in a place, there is no chance of the said diseases being spread by fleas or other agents. The yellow fever of the African coasts is yet unknown in India, because there has not occurred a single case of that fever in India, although there is no scarcity of the Stegomyia mosquitoes in this country, which are the intermediate carriers of the disease. It is the human carrier, t h e r e f o r e, who should always be regarded as a danger to the community, unless he or she is properly treated on scientific lines, and be isolated from the unaffected, till he or she is declared as free from infection. This can only be achieved by educating the people on the principles of hygiene and sanitation and by enforcing laws for compulsory treatment of all infectious diseases on scientific methods, and affording facilities of such treatment within easy reach of the masses. For want of such measures and provisions, prejudices and bigotries still exist in our country, and even educated people are found to resort to quack remedies, when attacked with diseases which are likely to spread to others. For the safeguard of the society and of the whole country, precautionary measures should be taken by the Government and all Public Health institutions in right earnest. The Government and their Public Health Departments should devote more attention and money towards isolating and treating the "human carriers" in order to eradicate disease, rather than spending a lot in running after fleas and mosquitoes for prevention of epidemics. A network of outdoor and indoor hospitals with clinical laboratories attached to them, should be started throughout the length and breadth of the country, placed in charge of qualified medical men, and the cost to be borne by the State and public funds, so as to bring to the poor people the facilities of free and up-to-date treatment.

HOME AND INSTITUTION TREATMENT OF MENTAL ILLNESS

By

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UNDER what circumstances can a mentally deranged patient be treated at home and when to refer him to the hospital ?

This is too intricate a proposition to be disposed of summarily. But it is none the less a very important problem in this country as there are very few hospitals where these unfortunate patients can be kept under observation and treated scientifically without being stigmatised with the certification of lunacy.

Strange things happen in this luckless country ; when a person happens to be afflicted with mental illness, he becomes an object of derision and ridicule, and even now the treatment of the insane combines a good deal of cruelty and punishment. It must be brought home to everyone,both inside and outside the hospital,that patients are after all patients—it should not make any difference whether a person has been suffering from some physical or mental abnormality. All patients ought to be treated in an equally sympathetic and intelligent manner, whether they occupy beds in ordinary medical wards or in the observation wards.

The general public still believe that insane persons are under the influence of some strange spirit—that they are bewitched. They think that insanity may set in suddenly without rhyme or reason and, sometimes, they ascribe it to the misdeed of some supposed enemy or to the workings of some mysterious, unseen and hidden forces. This state of affairs persists even to-day inspite of the wonderful revelations by Sigmund Freud of the workings of the unconscious mind. It may be pointed out that strangeness and mystery lie nowhere else than the depth of unconscious mind and the experienced doctor can unearth the source of the trouble by analysing the mind. No mental symptom ever appears as a bolt from the blue; every symptom has its root somewhere within. The analysis of the mind is the work of the expert, and we are not concerned with that aspect of the treatment now.

Let us try to find out the cases which are most suited for treatment under simple home conditions or in the mental observation wards when certification will not be necessary. In this kind of treatment, nursing is the most important factor. Every patient should be approached as if illness of a physical kind is responsible for his misery. Though in certain cases, this method might lead to reinforce in the patient's mind his idea of serious bodily disorder when, in fact none such is present,yet,on the whole, the results are satisfactory by applying this rule. So the patient, even if he looks well, must be kept in bed for several days. This facilitates observation of the patient and at the same time gives rest to the agitated and fatigued mind and body. Then a complete survey of his life should be carried out not omitting such important items as occupation, domestic and financial affairs and the sexual side. When the patient finds that competent persons are dealing with his troubles he may be consoled a little. The patients of ample means may be safely treated on the lines of

general medicine in a private home without admission into a hospital. The poor may get the same facilities in the observation wards.

It is not an easy job to nurse a mentally afflicted person. A nurse who handles such cases is first of all expected to possess the skill and proficiency in general nursing; in addition, special training is required. She must have an unlimited patience, sympathy, and highly developed powers of observation. She must have a congenial temperament and a liking for this kind of work. She must have an optimistic outlook and must be tactful. Now if the patient's relatives take the responsibility of handling such delicate cases themselves the results are often disastrous. Besides, the doctor's work is handicapped in the absence of efficient and adequate nursing arrangement.

Dealing with the relatives of the patient is another difficult problem. These people are naturally very anxious. In answering their volley of questions, some of which may be irrelevent, tact, kindness and sympathetic understanding are required. The answers should be non-commital. The relatives' co-operation is absolutely essential for getting at the source of the trouble which is so necessary for carrying out successful treatment. The name of the patient or any secret confided by him to the nurse should not be disclosed to anybody.

The following patients may be treated in the aforementioned way:—

1. Patients suffering from nervous breakdown due to economic and domestic difficulties; and in these cases, some physical ailments as well might be present.

2. An alcoholic person faced with some conflict which he has not been able to solve satisfactorily.

3. Persons who are drug-addicts and are prone to commit crimes can be dealt with in a similar may.—Some of these cases are intractable and require prolonged treatment in hospital.

4. A young married woman suffering from physical illness and having excessive worry—may be abnormally excited, depressed or confused after childbirth. If she is not properly cared for, she might be injudiciously certified and admitted to the mental hospital forgetting that her condition is just a temporary phase of abnormality with quite a good prognosis.

5. Sometimes, a person falling a victim to pneumonia or some other serious septic condition becomes delirious and confused and for the time being restless and difficult to manage. If, after emerging from this temporary illness, he finds himself a certified lunatic that would be a most regrettable affair. Such occurrences are not too infrequent and must not be allowed to continue *ad infinitum.*

6. People with mild depression should get sympathy without sloppy treatment. Anything which encourages his idea of unworthiness is harmful and may lead him to commit suicide. If the relatives cannot understand the patient and treat him sympathetically, he should be removed to the hospital to avoid grave consequences.

7. People suffering from anxiety neurosis, obsessive compulsive state or chronic hysteria and neurasthenia are suitable cases for treatment by private practitioners, well conversant with mental disorders. These patients can be up and about if they are kept engaged in some occupation and, if they receive the necessary psychotherapeutic treatment, they improve considerably. Cases of conversion-hysteria sometimes require treatment under hospital conditions.

8. Children of tender age should be kept under the direction of competent physicians but unfortunately, in these cases, the home environments

are sometimes the root of the trouble. In that case, the child should be removed from the unhealthy atmosphere.—Two types of children must be taken away from home—They are :

(*a*) Those who never stand on their own legs but continue to cling to their mothers' aprons.

(*b*) Those who become rebels on account of severe discipline.

9. Mentally deficient children can be treated at home so long as they respond to discipline and are not dangerous to others. But they are best treated in such hospitals and institutions specially meant for the mentally defectives.

10. Schizophrenia or dementia praecox, in the early stages, can be managed at home. There are some types of patients, however, for whom no place is more suitable than the mental hospital and they have to be certified. They are :

(*a*) Those who persistently refuse food.

(*b*) Those who are violent and have homicidal tendency.

(*c*) Those who have suicidal predilections.

(*d*) Those who are too degraded in habit.

(*e*) Those with fixed and systematised delusion proving themselves great nuisance to others.

(*f*) All grossly psychotic patients.

Besides these,all sorts of individual considerations crop up before the final step of certification is taken.

The following points are to be specially attended to during the treatment of mental diseases:—

(*a*) Rest and sleep should be adequate.

(*b*) Nutrition—the patient should be well fed and get proper nourishment. "The gospel of fatness" is applicable here to the same extent as in the case of tubercular patients.

(*c*) Care of the mouth and the bowels, specially of the confused and depressed patients.

(*d*) Suitable arrangement for exercise, light occupation, amusement and recreation.

(*e*) Psychotherapy, medicines and bath as recommended by the doctor.

OCEAN OF MIND

Let there not be in your "Ocean
of Mind" a grievous storm,
But full of great ambition,
much deep and also calm.

Don't trouble a journey-man
whose life depends on you;
But help him as you can,
and show the way of forward move,

Allow not the sadness to appear
on your wavy smiling face,
For, the narrow-minded world will fear,
to trade on your surface.

—*By N. Rajaram, (Baroda).*

SOME COMMON INFECTIOUS DISEASES AND THEIR PREVENTIONS

BY Dr. MANSUR HUSAIN, B.Sc., M.B. B.S.,

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THE infectious diseases prevalent in India are many. Only a few of those have been selected for discussion in this article which has been written exclusively for the general public. Salient points have been touched very briefly avoiding details and medical terminology. The language is very simple which can be understood by the layman.

It is in the interests of everyone to know something about the common diseases,as many useful lives, which could have been saved are often sacrificed at the altar of ignorance. Ignorance kills more people in India than any particular disease. I have seen many instances where preventive measures could have saved a great deal of suffering, pecuniary loss, anxiety and worry. One case of typhoid in a family has been followed by several other cases due to the ignorant refusal of the family to isolate the case and to take preventive inoculation. A child suffering from whooping cough is allowed to mix with other children of the neighbourhood or is taken to a religious gathering or marriage party and infects dozens of children. The spread of the disease could have been checked through ordinary precautions. It is a common practice among most of the people that they do not have recourse to proper treatment in cases of eruptive fevers with serious consequences to the health and life of many. Cases of bacillary dysentery are treated at home with home remedies which are used for cases of simple or amœbic colitis till they become serious and infect others. I know a family where all the members have been suffering from chronic bacillary dysentery for some years as they refused through ignorance to attach any importance to the first case.

It is true that the lack of proper medical aid, economic and social difficulties, and absence of general hygienic facilities in India are a great handicap. Education of the general public, however, will go a long way in reducing the death rate and limiting the spread of the disease in spite of these difficulties. It is through knowledge that people can expect to be benefited by the resources and facilities available to them. It, therefore, becomes their duty to be generally acquainted with the diseases which are common in India.

Articles of rotten food, mutton and flesh in particular, exposed for sale are often the sources of epidemics like cholera and dysentery.

Cholera.—It is an infectious disease

caused by minute germs which can only be seen with a microscope. They are comma-like in shape. They enter our stomach with contaminated water and food. The contamination may occur through dirty hands, dirty water used in cleaning or for drinking, and dirty food (containing the specific germs) purchased from the bazaar. Articles of diet, *e.g.*, fruits and vegetables which are not cooked in the house and are taken raw, can also convey the infection. Flies play an important role in the dissemination of the germs. They carry them from the stool and vomit of a patient to the food, water and utensils etc.

Preventive Measures :— 1. It is necessary to take only clean water which is free from the germs. The drinking vessel must also be similarly clean. Flies should not be allowed to have access to the one or the other, or to the food.

2. The water used in cleaning vessels, utensils etc. must also be germ-free (boiled).

3. Bazaar and stale and also uncooked food *e.g*, fruits, and salads should be avoided. Dishes freshly prepared at home should only be taken. Flies in all cases must be excluded.

4. As the germs are killed in acid media, fresh lemon juice or vinegar can be taken with each meal to ensure the acidity of the stomach. It is a common belief among most people that the use of spices acts as a protective against cholera. There is a good deal of truth in it as the spices increase the acidity of the stomach which acts as a barrier against the entry of *living* germs into the alkaline medium of the intestines where alone they can thrive to produce the disease.

5. Vegetables and fruits on arrival from the bazaar should first be soaked in Pot. Permanganate solution before being cooked. Milk should always be boiled. All precautions will come to nothing unless flies are prevented from having access to all these things.

6. Preventive injection of anti-cholera vaccine must be taken specially if there is any danger of an epidemic.

7. If unfortunately a case occurs in a house, the Medical Officer of Health must be informed, and the patient should at once be transferred to an Infectious Diseases Hospital, failing which, he should be secluded under medical supervision and properly treated. The destruction of the excreta and disinfection of the clothes and utensils of the patient and also the disinfection of the house must be done under proper supervision in accordanee with the directions of the doctor or health authorities. Anti-cholera inoculation to protect the other members of the house is indispensable.

Enteric Fevers.–They are of several varieties, the typhoid and the paratyphoids, all of which are known by their common family name,the Enteric Fevers. They resemble each other and are caused by similar but specific germs, so that the treatment and precautionary measures are the same for all of them. They are all infectious and the manner in which the infection spreads is the same in all cases. The germs enter the stomach with food and drink and thence they find their way into the intestines, where they ultimately tarry to do their mischief. Contaminated water, milk, and other articles of diet can convey the infection. Dust and other articles soiled by the excreta of a patient can also spread the infection. Flies too can transfer the germs from the excreta to the food and utensils. Vegetables and fruits washed with contaminated water,if taken raw, can also convey the disease.

Prevention :— 1. Drinking water must be germ-free. In the case of doubt as to its cleanliness, it should be boiled.

2. Uncooked food and fruits specially, if suspicious, should be avoided during an epidemic.

3. Water used in washing utensils should be clean.

4. In the case of an epidemic, anti-typhoid inoculation must be taken.

5. If there is a case of typhoid in the house, failing hospitalisation, it must be isolated and the directions of the doctor regarding destruction of the excreta, sterilisation of the utensils and clothes used by the patient etc. must be rigidly followed. All the inmates of the house must receive preventive inoculations.

CERTAIN ASPECTS of NUTRITION and PUBLIC HEALTH

By N. C. DATTA, B.Sc.,
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Vegetable Ghee.—The progress in food industry has produced other changes in the diet of the people. The increasing knowledge about the chemistry of food has stimulated the production of artificial and synthetic products which have become serious competitors for the wholesome natural foodstuffs. One of these artrificial preparations which is produced on a large scale in India is usually referred to as "vegetable ghee", and consists largely of hydrogenated vegetable oils. With the introduction of vegetable ghee in the Indian market, there has been an increasing consumption of this product as cheap substitute for pure ghee. From a chemical point of view as a mixture of glycerides of fatty acids as well as from its calorific value, the vegetable ghee is equivalent to pure ghee. As a cheap form of energy available to the poor, the use of this product cannot be objected to; " the case is equivalent to that found in Western countries, where butter and margarine are both marketed." The view is widely held that butter fat is more easily digestible but there appears to be little scientific authority for this point of view as it applies to a comparison of pure ghee and vegetable ghee. The consumption of vegetable ghee is held objectionable on the contention that the hydrogenated vegetable oils contain little or none of fat-soluble vitamins and as pointed out by Professor Halliburton and Drummond, " the question assumed no little importance when the dietary of poorer classes is being considered. " The substitution of vegetable ghee in place of pure ghee may bring about a deficiency of vitamins in those who consume it; and as, Professor Drummonds says: " To me it is a striking example of the dangers which lie behind acceptance of the belief that other foods will make it good. "

Adulteration.—It is reported by Dr. Wright that 90 percent. of the total supplies of the artificial products such as hydrogenated oils, are used for adulteration of ghee which has become a rare commodity in the Indian market. Dr. Hawley, the Government Analyst for the Madras Presidency, writes that "butter is as commonly adulterated as ghee and that those members of the public who believe that they are protecting themselves when they have their ghee made from butter in their presence are living in a fool's paradise." Attempt has been made through the Agricultural Marketing Advisor to the Government of India, for grading to the official standards prescribed and marketing the products with the *Agmark* labels supplied by the Marketing Advisor. Several ghee grading Centres with well-equipped laboratories and qualified staffs for testing the ghee, have been established by private enterprise. One looks forward with certain amount of confidence that the present step taken by the Marketing Advisor will greatly help to improve the quality of ghee and also to effect a check on the trade in adulterated ghee. Adulteration is not restricted to ghee and butter only but is also common in other foodstuffs. —*Med. Bul., Oct. 21, 1939.*

THE RICE RIDDLE

A MODEST SOLUTION

By

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WHOLE rice (husked only) with the germ and bran intact, is, by itself, perfect as a food. In my last article 'THE RAPE OF THE RICE' published in the September 1941 issue of *Health*, it was pointed out that when rice is eaten, after being polished, washed and cooked, it becomes almost, if not quite, worthless. In polishing (partially or fully by hand or in the mill), the germs and outer layers of bran, which contain such highly valuable, nutritive factors as proteins, fats, minerals and vitamins, held in concentration, are removed. In washing, the rice suffers a further loss of minerals, vitamins, etc., owing to their solubility in water. Cooking the rice, by boiling it in enough or excess water, renders the rice so soft, sloppy and waterlogged as not to provoke mastication and secretion of saliva, necessary for giving the digestion a good start. Such food is not only valueless, but leads to the production of poisons which in turn cause ill-health and serious diseases. Eating such food is no better than filling the belly to appease hunger. It is literally "giving the famished body *stone* when it asks for *bread*"

99.9 per cent of the people of India are poor. It must be realised that food means cereal food, because no other food is as cheap. Out of about 160 million acres under cultivation of all cereals put together in 1936-37, the area under rice cultivation was about 81 million acres, a little over 50 per cent. Rice is therefore the staple food of India; and to the rice-eating poor, it is the sole food. Proteins and fats are dearer than cereals; milk, fruits and other protective foods are dearer still; and these are only consumed regularly by a microscopic minority who, for the time being, belong to the capitalistic class or to the top grade in the professions and services.

When the poor man is reduced to starvation and kept in bondage with his hands and feet tied up as it were by an iniquitous economic system—*vide* the para *Uncontrolled Exploitation* in my previous article–the recommendation to educate him about the food value of rice in its various forms with a view to make him demand hand-pounded or once-polished rice from his *sahukar* or merchant, looks like a mockery. It may be pointed out here that once-polished rice also, if prepared from unwashed paddy and sold exposed in the bazaar, has to be washed to free it from mud, sand, dust, etc., which would certainly affect the nutritive constituents owing to their solubility in water.

Though we are fed up with reports of conferences, surveys, and the like on the problem of rice, it is indeed a pitiable situation that in a matter of such vital importance to the large mass of poor people, not even a gesture has been made towards a practical solution.

A practical solution should be found for the following problems in the interest of the health of the people:

1. *How to eliminate the washing of rice, whether partially or fully polished, raw or parboiled.*
2. *How to save the germ and bran (rice polishings) in a fresh,*

clean, sweet condition so as to be used as a supplementary food by the people whose sole or main food is devitalised rice.

3. *How to encourage the preparation and consumption of rice dishes in as dry a condition as possible for provoking mastication and secretion of saliva.*

In this article, I am making certain suggestions and would request the Government, Municipalities, District Boards and others to examine the same and do something tangible to improve the diet of the people.

Washing the Paddy instead of Rice.—My previous article dealt with the heavy loss of highly valuable nutritive constituents incurred by the washing of rice owing to their solubility in water. This and other losses can be avoided if each consuming unit, be it an individual, or a family or a distributing centre would, at a time clean, wash, dry and store properly in the manner indicated below as much paddy, and no more, as will meet its requirement of rice and its products for a fortnight.

Firstly, the paddy should be dry-cleaned to free it from easily removable foreign matter ;

Secondly, the dry-cleaned paddy should be soaked in water for about half-an-hour and then quickly rubbed and washed to free it from stones, mud, sand, dust, etc.

Thirdly, the wet-cleaned paddy should be immediately transferred to baskets for draining the water ;

Fourthly, the paddy should be well dried in the sun without any loss of time in a clean, dustless place.

Fifthly, the cleaned and well dried paddy should be stored properly and hygienically.

All the above operations should be carefully and quickly finished. Every care should be taken to prevent prolonged soaking in water and delay in drying and consequent germination.

In reply to my references on the matter, Dr. W. R. Aykroyd, Director, Nutrition Research, Coonoor, and Dr. V. Subrahmanyan, Professor of Biochemistry, Indian Institute of Science, Bangalore, inform me that there is little loss of nutritive material if paddy is soaked in water, cleaned and sun-dried in the manner mentioned above.

Washing the paddy should be one of the items of work to be attended to by each unit of Consumers' Co-operative Granaries, Industries and Stores, the establishment of which is recommended in the concluding portion of this article.

From paddy so cleaned, rice and rice products could be made and supplied direct to consumers at short intervals without deterioration in quality or flavour, and in such a clean and hygienic manner as to require no further cleansing or washing.

Save the Rice Polishings.—The by-product turned out in the process of milling the rice in one operation, (as in country mills) is a mixture of husk and rice polishings in powdery from. from which the rice polishings cannot be separated. It is useless as a cattle food, or even as a fuel. It is therefore thrown away. Rice polishings, which contain highly valuable nutritive constituents, is thus lost to us.

Bigger mills remove the husk in one operation, and then proceed with the process of polishing. Here the husk and rice polishings are obtained as separate by-products. Since the husk is not in a powdery form, it is used as fuel. The rice polishing is used as cattle food. The rice polishings include the germs which contain oil. This oil quickly becomes rancid and affects the quality of the rice polishings. Therefore, the suitability of stale and old rice polishings even as cattle food is open to doubt and needs investigation.

About 40 years ago, *i.e.*, before the

introduction and spread of rice mills, rice was hand-pounded and consumed in the country. All the by-products were consumed or used in the local area. Rice polishings, broken rice, etc., were consumed in a fresh, clean and sweet condition, without deterioration in quality or flavour.

Rice polishings will go bad within 3 or 4 days. They should be fresh and sweet to serve as food and to obtain its nutritive constituents. Scientists may treat and pack the rice polishing in air-tight tins to preserve its quality and flavour for a year or more, and the capitalists will exploit the process, but the cost of tinned rice polishings will not be within the means of the large mass of poor people.

The making and supplying of fresh, clean and sweet rice polishings in fine, medium and coarse qualities, should be one of the lines of business of the Consumers' Co-operative Granaries, Industries and Stores.

Food Value of Rice Polishings.— At the extremity of the whole rice (husked only) is imbedded the germ (embryo) which is softer than other parts of the grain and could be easily rubbed off.

Sarvamura of Japan (1920) found the *rice embryo* to afford the following results :

Water	...	5.73	per cent.
Crude protein	...	24.30	,,
Crude fat	...	20.12	,,
Lecithin	...	0 93	,,
Sugars	...	10.79	,,
Starches	...	14.89	,,
Crude fibre	...	9.77	,,
Ash	...	13.47	,,
		100.00	

According to Chick and Hume, weight for weight, the rice is twice as rich as the wheat germ in vitamin B content.

As Chick and Hume (1917), and Mc Collum, Simmond and Parsons (1919) have pointed out, large quantities of vitamin B_1 seem always to be found associated with the embryo. In the wheat grain, as in the rice grain, the vitamin B_1 is concentrated principally in the *germ*, and to a less extent in the aleuron layer.

According to Pamphlet No. 8 (to which Sir Robert Mc Carrison has written a foreword) of the Bombay Presidency Baby and Health Week Association, the composition of the bran of wheat and rice is as follows :

		Wheat bran.		Rice bran.	
1.	Salts of Caicium, Iron, Phosphorus, etc. ...	6.0	p.c.	8.7	p.c.
2.	Proteins of fair quality ...	16.4	,,	19.0	,,
3.	Fats of good quality	3.5	,,	20.0	,,
4.	Carbohydrates ...	43.6	,,	43.0	,,
5.	Cellulose and fibre.	18.0	,,	1.0	,,
6.	Moisture ...	12.5	,,	8.3	,,
7.	Vitamin B_1, B_2, and E ...	+++		+++	
		100.0	,,	100.0	,,

On page 135 and 136 of his book 'VITAMINS AND VITAMIN DEFICIENCIES, Vol. I, 1938 Edition, Harris has quoted the results of tests and findings of Baker and Wright (1935) on the vitamin B_1 content of foods. There we find it recorded that one gramme of rice polishings contains *from 5.6 to 7.6 International Units of Vitamin* B_1. (the Italics are mine.)

On page 138 of the same book, Harris has quoted what Baker, Wright and Drummond (1937) had observed in their studies of vitamin B_1 content of goods, from which the following extract is made.

> There are very few common foodstuffs which can be considered rich in vitamin B_1. Wheat germ occupies so outstanding a position in this respect, an average value being 10 International Units per gramme, that it is not entirely a simple matter to devise a diet containing 500 or 600 units a day without relying on wholemeal bread. The physiological minimum of vitamin B_1 for adults appears to be about 300 units per day and there are grounds for believing that the desirable intake is about 600. A survey of modern diets shows that only better-class diets provide as much as 500 units per day. Working-class diets are often dangerously near the "beri-beri" level, a fact which is of serious import when it is appreciated that demands during pregnancy may be three times as great as those of the normal adult. Estimation of vitamin B_1 content of diet prior to the introduction of the roller mill showed that an intake of 1000 units per day was common even amongst the poor.

Prior to the isolation, manufacture, and introduction of "Vitamin Concentrates" for administration by injection or by mouth, rice polishing was, accoding to Harris and others, in general use in the hospitals of tropical countries, as an antitode to deficiency diseases caused by the consumption of devitalized rice. In its place vitamin B_1 concentrates of foreign origin have been introduced and prescribed by official and non-official doctors.

The importance of rice polishings is further evidenced by the fact that the International Standard of Vitamin B_1 was prepared from an extract of rice polishings in water, acids etc., in the manner prescribed by the International Committee.

How Rice Polishing could be used. —Clean, fresh, sweet rice polishings, after being combined, kneaded and prepared, for palatability and agreeability, with such foodstuffs as the flours of partially or fully polished rice, dhals, beans, salt, condiments, cocoanut scrapings, dairy products, oils, jaggery, honey, etc., according to consumers' means, needs and tastes, can be made into roti, biscuits, cakes, hoppers etc. The rice polishings can also be used with vegetable and other preparations such as *curries, kootus, kolambu (pulusu), pachadi, kosambri* (salads) etc. The rice polishings should, for these purposes, be in a very fine division.

The coarse rice polishing may be used in making a filterated decoction or extract in boiling water and consumed as beverage flavoured with lime juice, butter, milk, jaggery honey etc.

(To be continued)

MUSIC AS MEDICINE

By EDWARD PODOLSKY, *New York.*

(Abridged.)

The ancient fathers early learned that music was one of the greatest of all healing forces. The astonishing power of music to soothe the troubled mind and even to elevate the spiritual qualities of man was noted by Polbyius, who, speaking of a musical race of Arcadia contrasted the gentleness of their manners with the boorishness and cruetly of the Cynetes, who neglected the cultivation of music. Another Greek historian tells us that Clynetstra strayed from unsocial conditions through the persuasion of music. Terpander was said to have restored a rebellious and unreasonable people to their allegiance through his melodies. On the other hand, Tyrtaeus, the Spartan, by certain verses which he sang to the accompaniment of flutes so inflamed the courage of his countrymen that they achieved a great victory over the Messenians to whom they had lost on several previous and music-less conflicts.

The first really medical use of music was made by Zenocrates, Sarpander and Arion, who used music produced by a hary to curb the maniacal outburst of madmen. Celsus, one of the most illustrious of early Greek doctors, was an enthusiastic user of music instead of brutality to heal the insane. He pointed out different methods of influencing the minds of the insane, depending on the nature of their mania. "We must quiet their demoniacal laughter by reprimands and threats, and soothe their griefs by harmony, the sound of cymbols and other instruments."

While soft music may soothe, wild music may influence the susceptible. Antigenides had a most interesting experience in this connection. He played a very spirited air before Alexander the Great and so inflamed him that he leaped from his chair,

drew his sword and began attacking those about him.

In music as a medicine, the flute was used for the alleviation of a great many diseases, which Galen called, "*Super loco affecio tibia caverr.*" Martinus assures us that he was successful in removing fevers by song, and that Esculapius cured deafness by the sound of the trumpet. Allus Gellius is authority for the statement that a case of sciatica was cured by gentle modulations and the Phrygian pipe was generally recommended by several of the ancient philosophers as an antidote to sciatica.

Curative applications of music were made, as stated previously in many abnormal conditions during a period of many years. Some two hundred years ago, Drs. Bruckman and Hufeland reported cases of St. Vitus dance which were cured by music. Dr. Dessarts also maintained that catalepsy was cured in a like manner. Drs. Schneider and Beck ascertained the effects of music in hysterical and hypochondriac conditions and found them to be much benefited. So widespread was the enthusiasm for musical therapy during the seventeenth century that a pretentious work appeared bearing the title MAGS UNIVERSAL NATURAE ET ARTIE, which contained bars of music reputed to cure persons bitten by a tarantula. As a matter of fact, the effectiveness of music in curing tarantula bites was further affirmed by Dr. Mead in England, Dr. Burette in France, and Dr. Baglivi in Italy. Their exaplanation of this phenomenon, which is quite reasonable, is that music throws the patient into violent fits of dancing, which, by bringing on profuse perspiration, reduces the amount of poison in the body.

After the horrors of the plague, which swept across Europe in 1374, a very curious dance was observed in Germany. This was known as the dancing mania. Entire communities joined hands, screamed and shook for hours on end until they dropped exhausted. It was thoroughly infectious

Music is the finest of Fine Arts. Pregnant with celestial fire, it is capable of melting even the stoniest heart, and the more so, one of flesh and blood. Picture shows Miss Chanda Bai, a famous Film Star and a talented exponent of Indian Music, playing with Thambura.

and no medicine known at that time had any effect on it. Music was found to be the only means of checking it. The public authorities of certain towns gave orders that music should be played to the maniacal dancers. It was found that lively shrill tunes excited them even more. Soft, and low music seemed to have the desired effect and they were so calmed that they ceased to jerk and flounce about.

Among the oldest records of the Academy of Science at Paris is mentioned the case of an illustrious musician and composer who was attacked by continuous delirium which no drug of the Materia Medica could dispel. On the third day of his attack, he asked if he might hear a little concert in his own room. Bernier's Cantata was sung. As soon as he heard the first notes his face relaxed from its nervous tension. His convulsions were gone in another hour. However, as the music ceased he relapsed. After ten trials of the same treatment a complete cure was effected.

It was toward the end of the eighteenth century that any serious efforts to evaluate the effects of music on the human body were made. Among the first was Dr. Brocklesby, who conducted a series of interesting experiments on "W", a child less than two years old, born of musical parents, who was one day remarkable for mirth and good humor upon hearing sprightly airs of music. This gave occasion to the father and Mr. Stanley to try the effects of different measures, when they had raised the infant's spirit very high by these means. "But as the chromatic and the graver strains began, the child grew melancholy and sad, which temper was removed as soon as the pleasanter strain was played. Thus as I am informed they could solely by this art, raise and allay grief and joy in turns in this infant's mind."

Thousands of practical applications of music therapy have been made during the last two hundred years. The Guild of St. Cecilia, towards the end of the last century and the beginning of the present, organized curative concerts for asylums and hospitals with impressive results. Other similar societies engaged in identical work.

In time, other physicians began to regard music as a good medicine and tried it in a variety of conditions. In 1893, Dr. Ewing Hunter, of Helensburgh, N. B., found that soft music successfully reduced high temperatures in several cases of fever, the greatest reduction being two degrees, from 101 to 99.

Dr. Wimmer, a few years earlier, described the results of experiments with music conducted in an insane asylum. The piano was played for half an hour to 1,400 insane women. It was found that all responded to the rhythm. In some cases the pulse rate rose, others became restless and beat time. Melody without rhythm had ho effect at all except when it happened to be an air which awakened memories. With slow music the worst cases were soothed and sometimes went to sleep. After several experiments it was noted that all showed improvement.

Two years ago, Dr. J. A. Mc Glinn found that music was of distinct value in the operating room. Writing about his experiments in a prominent medical journal, he had this to say:

"The advantages of music in the operating room are summarized as follows: (1) It creates a better atmosphere for all the patients coming to the theatre where it prevents the usual noises such as the jingle of instruments and basins and hiss of escaping steam, from being heard. (2) It diverts the attention of patients during operation under local and spinal anesthesia. (3) It relaxes the attention of the surgeon and the theatre staff during the operations. (4) It entertains the 'operating room force' during the arduous tasks of cleaning up after the day is finished"

Dr. Mc Glinn found that soft soothing melodious music is the type most acceptable to all patients. Tea music being supplied by a special self-playing automatic record changing instrument with a superior type of reproduction.

Music as a healing agent is appreciated as such not only among the so-called civilized races. Many visitors to Indian villages have been impressed with the custom of medicine-man of singing while administering their herbs. They believe that singing makes the herbs more effective. In fact, many tribes have medicine-men who dispense with herbs entirely and depend upon their vocal music to heal the patient.

Among the Chippewa Indians there is a song which contains the following incantation. "You will recover; you will walk again. It is I who say it. My power is great." This song was believed by many to restore a person to the use of his legs.

Among the Yuma Indians the medicine-man sings at least four songs before he is expected to obtain any relief from his patient. It is only after the fourth song that the patient begins to experience any relief.

The Sioux medicine-man has a more elaborate music-medical system. He has a song for almost every known ailment—a song to cure headaches, one for children's ailments and another for setting a fractured leg. The Papago Indians of Arizona also have a similarly elaborate musical curing treasure-house. It is their belief that healing songs are given by certain birds and animals.

The Indian medicine-man of almost every tribe has a standardized regime. He sings his song four times after which there is a pause. Then, if necessary, the song is repeated four more times. While he sings he beats a drum or shakes a rattle which has not a little power in energizing the patient exhausted from disease. The Indians are masters of rhythm, and they realized years ago that rhythm is one of the most powerful means of influencing the human body.

Music has emerged as one of the most pleasant of all curative agents. Modern science with its exact methods of measuring psychological activities is daily confirming what many suspected for a great many years, that music exerts a most profund influence on almost every organ in the human body.

EMOTIONAL DISTURBANCES OF APPETITE

By CARL BINGER

You don't need an expert to tell you that your desire for food is closely related to your emotions. A young girl in love, a man seriously oppressed by anxiety over his job, a mother worried about a sick child, a grief-stricken widow—all may lose their normal interest in eating.

Less commonly recognized, however, is the fact that an excessive need for food, a desire to eat all the time, may also be emotionally determined. A child who feels unhappy or unloved not infrequently reacts to this state by a kind of gluttony. In addition to stuffing at meals, he becomes fat and unlovely. His parents "pick on him" and urge him to restrain his appetite. He feels more unhappy and more unloved and goes right on overeating, thereby defeating his own purpose. Physicians are familiar with this situation and in the presence of obesity or emaciation they suspect disturbances of emotional equillibrium as well as the presense of bodily disease.

Even events that appear to be minor flurries in the day's routine may, in some children and adults,

produce a sudden loss of appetite. The anticipation of a party, a date with a pretty girl, an important business interview, the first day of school —all may take away our appetites.

But mothers and nurses know that few children grow up without some time presenting a feeding problem. A child who never presents a feeding difficulty is the exception, not the rule. The difficulty may occur in earliest infancy, while still at the mother's breast, during the weaning process, or any time thereafter, even through adolescence. It may take any form, from excessive greed and gluttony to dwadling over meals, or even to complete refusal, rejection and persistent vomiting. Children, not political prisoners, invented the "hunger strike."

Loss of appetite—due to physical apart from emotional causes—often yields to various forms of physical exercises.

Picture shows the activities of the new "Fitness for Service" campaign at Fulsham inaugurated by the Central Council for Recreative Physical Training.

Many mothers and nurses devote hours to coaxing and cajoling the recalcitrant child to eat. The child soon discovers how important this is to the adult and often uses it to gain attention and to monopolize the adult's time and devotion. Why babies vary so much in the nursing and weaning process is not wholly understood, but there can be little doubt that these disturbances of behaviour are intimately associated with the child's own sense of security and with his need for being loved. To the baby and the young child being loved is not a luxury. It is essential to his emotional survival in a hostile world. His relationship to those who love him and care for him is often expressed in his attitude toward food.

The more any disturbance is emphasized and combated directly, the greater is the tendency to "conditioning" or habit formation. Later in life, especially during periods of emotional tension, or during such times of life as adolescence and late middle age, these patterns established in early childhood may recur. Throughout nature there appears to be a tendency to repeat the experiences of the race and to revert or regress to earlier behaviour patterns, especially when emotions are disturbed.

Adults often forget how extremely sensitive children are to minor tragedies and to the passing moods of their elders. The death of a pet canary, a chance shadow of a bear or an elephant on the bedroom wall, an unearned frown or scolding, the bullying of an older brother—all may upset a child's sense of security sufficiently to be reflected in his eating habits. Although each of these minor tragedies must not be taken seriously and bad eating habits should

be corrected sometimes with discipline, it is the intelligent approach always to suspect an emotional upset in a child who suddenly presents these disturbances. Naturally, the child's physical health and bodily hygiene should be taken into consideration.

What is true of children is generally true of adults. They exhibit a wide variety of behaviour in their attitude toward food. In persons who are seriously disturbed in their emotional and mental lives, far more highly charged reactions are often encountered. It is common in mental hospitals to find patients suffering from states of depression who refuse food altogether and who have to be fed by tube. Indeed, loss of appetite and loss of weight may often be the precursor of a state of depression, just as increased food intake and gain of weight may usher in a period of elation or excitement. Patients who refuse food sometimes present a puzzling problem. Behind their refusal to eat, the physician may discover a variety of emotional attitudes. They may be defiant, like a small child. They may be withdrawn and exhibit an aversion to all external stimuli. They may have disgust reactions and regard all food as dirty, or they may fear of being poisoned by food. They may feel that it is sinful to eat, or even criminal. They may be overcome with a sense of guilt at the thought of food. Behind their refusal may be a wish to die, or there may even be cannibalistic fantasies.

Young women patients sometimes fear that certain foods will make them pregnant. This fantasy is not unfamiliar in mythology and is probably analogous to the old wives' tale told to children that a tree will grow in their stomachs if they swallow a prune pit. The Pueblo Indians of Southwestern America believed that their culture hero was born of a virgin who became pregnant from eating two pine nuts. It is an extremely common misconception of childhood to believe that babies are produced through the gastro-intestinal tract.

In primitive societies and in many religious rituals, certain specialized attitudes toward food are analogous to those encountered in certain persons in our contemporary society. Periods of fasting and periods of feasting are common both in the practices of primitive societies and in the expression of religious observances today. These contrasting attitudes toward food are usually with corresponding emotional attitudes. When people are gay, triumphant, thankful and otherwise in an expansive mood, they hold a feast. Fasting, however, usually occurs during periods of mourning and repentence, when the mood is contracted or depressed.

Similarly, in all primitive socities, the eating and avoiding of certain foods serve as a kind of magical function. In many tribes, the totem animal is taboo and his flesh may not be eaten. In most human societies the flesh of man is taboo. But there are cannibalistic tribes in which the eating of the flesh, especially of the heart of the conquered adversary, is thought to endow special qualities of virtue and courage.

A type of severe loss of appetite seen mostly in young women is characterized by extreme emaciation which sometimes, if improperly treated, results in death from starvation. Closer inquiry usually reveals that there is a reaction of disgust to all or most food substances. One young woman suffering from this disturbance would eat only chocolate, ice cream and peanut butter.

The phenomenon of disgust in relation to food is in itself one of interest. STEFFANSON, the Arctic explorer, gives an amusing account of how he taught himself to approach with relish the nauseating mess of putrid fish heads which Eskimos save as a specal delicacy for their children. He did this by thinking of foul-smelling cheeses which many of us eat with gusto.

The Chinese are said to enjoy eating ancient eggs, an article of diet which would probably turn our stomachs. The cultivated English man hangs up his game until it becomes "high" or gamey. Disgust is therefore a reaction not always consistent with the real situation. It is determined by conventional standards, personal predilections and early experience often deeply buried in the past. Young children sometimes react with disgust to certain food articles such as the fat of meat, or the skin on milk. It is best for adults not to be too authoritarian and peremptory in dealing with these vagaries, but to treat them lightly. An attitude of relaxed enjoyment is the best one to bring to the dinner table.

When the late CHARLES WILLIAM ELLIOT, ex-President of Harvard University, was writing his essay on the "Durable Satisfactions of Life" he called his cousin, Miss GRACE NORTON, and asked her what in her long life she regarded as among its more durable satisfactions. The old lady replied without a moment's hesitation: "My victuals, cousin CHARLES, my victuals." A healthy person enjoys his food and a loss of appetite is evidence of physical, mental or emotional illness for which medical aid should be sought.

Topics from Medical and Health Periodicals

Ages of Motherhood

"Approximately 80 per cent of women give birth to their first babies between the ages of 15 and 35," *Hygeia, The Health Magazine*, states. Over half of these first babies are born to mothers aged 20 to 25. Only slightly over 2 per cent of the first born babies have mothers past the age of 35, and about a third of 1 per cent have mothers over 40 years of age. The risk to mothers is greatest with the first child and with the last of many children."—*Texas State Journal of Medicine, Dec. 1940.*

Physical Examination of Domestics Urged

THE individual physician must protect the families in his care, and through them the community, by urging physical examination of domestic employees. Repeated emphasis on the necessity of this should result in the earlier diagnosis of tuberculosis and in the prevention of exposure to infants and children from this source of infection. An annual health certificate declaring freedom from syphilis, genorrhea, and tuberculosis should be the requisite for the position of nursemaid. —*David V. Shar, M.D., Journal Lancet, June, 1940.*

Modern Love Song

OH lady fair of form divine,
Pray won't you be my vitamine?
B_1 with me, my love, and C
How life one long D-light can B.
E-nough! A preacher let us find.
Oh G! I'll be so good and kind.
And ere our time to cross the Styx,
Perhaps we'll A_4, 5 or 6! Anon

Vitamins in Breast Milk

"BREAST milk can furnish to the baby only such vitamins as are taken in the mother's food," *The Journal of the American Medical Association* for March '30 points out in answer to an inquiry as to whether or not such milk contains sufficient vitamins for the infant, and if so for how long a time.

"It is therefore obvious that, unless the mother has a diet rich in vitamins C and D, she will not furnish an adequate supply of these vitamins to the baby. It is for this reason that it is strongly advisable to begin both orange juice and some form of vitamin D early in infancy. As it takes some time for either a vitamin C deficiency—that is, scurvy —or a vitamin D deficiency—that is, rickets— to develop it is impossible to say for how long a time the mother's milk alone would be adequate to protect a newborn baby. The only safe procedure is to take no chance and to supply these vitamins from earliest infancy on."—*Texas State Journal of Medicine.*

Diet of Mother and Foetal Size

IT is probably true that the consensus of obstetricians is that the bulk of the baby can be limited. This is done by restricting the sugars and starches and some restriction of fluid during the last trimester of pregnancy. Care should be exercised that the actual requirements of a balanced diet are not disturbed. The restriction of food does not affect the length of the baby or the size of its head. These are probably more largely determined by heredity. The weight and size of the baby are important, because delivery is often complicated by bulk and excessive size of the bony structure as well as by a large head.— "Jnl. A. M. A."—*The General Practitioner.*

Effect of Horn Playing on Asthma

IT is possible that the well disciplined breath control required for playing the horn could have a favorable effect on asthma, *Hygeia*, states in answer to an inquiry. "In certain asthmatic patients," *Hygeia* explains, "the onset of attacks is influenced by nervous factors which may, in part, be brought under conscious control of the patient. This control may be improved by training, and for this reason physicians sometimes prescribe breathing exercises for asthma." However, it is pointed out that certain children "outgrow" their asthma as they leave childhood, and the improvement noticed in a child who had begun to play a horn might be due to this factor instead.—*Texas State Journal of Medicine. Dec. 40.*

Far-Sightedness and Visual Clarity

FAR-SIGHTED persons cannot see distant objects more clearly than persons with normal eyesight, *Hygeia* points out in answer to an inquiry.

"The so-called far-sighted eye is smaller than the normal eye," *Hygeia* says, "and therefore parallel rays of light focus behind the sensitive screen (retina). For the far-sighted person to see far objects clearly it is necessary for the lens muscle to help in bringing the focus on the retina; the normal eye sees the distant object without any muscular effort. With this muscular action the far-sighted person may be able to see objects at a distance just as clearly, but certainly no more clearly, than one whose eyesight is normal."—*Texas State Journal of Medicine. Dec. 40.*

Leave 'Em Where They Lie

WHAT should you do in case of hemorrhage? Don't get excited—look carefully and see what kind of bleeding it is.

If it is just oozing or coming freely from a *vein* (not squirting) put your handkerchief, shaken out and DRY, into the wound and bind it or hold it there snugly—CAUTION, NOT TIGHT. A tight bandage around the limb stops the blood from passing through other veins and makes the injured one bleed more.

If, after a few minutes, (given time to clot) the hand-kerchief or paper is soaked, remove it and at once put in another DRY one. A few changes at most will stop any oozing or venous bleeding if NOT BOUND TOO TIGHT. You can make a man bleed to death by tying something tight around the limb above a wound. Light pressure as described above will stop bleeding.

(Prepared by the Fracture Committee, Texas State Medical Association: sponsored by Texas State Highway Department and Texas Public Safety Commission.)

—*Texas State Journal of Medicine, June, 1941.*

LUCK counts in life, sometimes, but it never helps the ignorant or unfit.—*John Blake.*—*The Bulletin of the San Juan de Dios Hospital of Manila, July, 1941.*

Bleeding

WHEN an *artery* is cut which pumps the blood from the heart, that is when you must put on a tourniquet.

What is a tourniquet?

It is something tied around the limb well (high) above the wound and tightened until the spurting stops.

What can you use and how is it put on?

Use your necktie or belt or suspender or stocking.

Wrap it once around the limb, a hand breadth from any joint over some clothing (to keep from pinching the skin) and tie loosely. Then put a stick or pencil between the hand and leg or arm and twist the band until it tightens just enough to stop the spurting. Then every five munutes loosen it for fifteen seconds to let the curculation through and tighten again. Blood will clot (congeal) if given a chance.

(Prepared by the Fracture Committee, Texas State Medical Association: sponsored by Texas State Highway Department and Texas Public Safety Commission.)

—*Texas State Journal of Medicine, July, 1941.*

Cattle Population of India

INDIA possesses roughly one-third of the world's cattle population. The estimate was made by Dr. NORMAN WRIGHT, who came to India in 1937, to report on the development of the cattle and dairy industries and based his figures for the years 1926-30, showing the world's cattle population at about 690,000,000 animals of which 152,000,000 were located in British India and 36,000,000 in the Indian States. Next in order came the Soviet Union and U. S. A., each with barely one-third of India's total. Great Britain was credited with only 7,000,000 animals. The figure for India's cattle given in the fourth Census of Livestock, taken in 1935, is 215,000,000.

Dealing in his report with the actual value of produce derived from India's cattle, Dr. WRIGHT put the actual value of milk and milk products at about Rs. 30,00,00,000 and the yearly output of hides and skins at Rs. 4,00,00,000. Dr. WRIGHT put the actual value of cattle (including the value of diary products) to India's agriculture at Rs. 1,00,00,00,000 and observed in his report: "The potential value of cattle as a means of raising the level of fertility of the soil and of thus increasing the output of both cash and food crops is, I believe, incalculable".

Dr. A. A. MACDONELL, M.A., Ph.D., Emeritus Professor of Sanskrit at Oxford University: stated in aid of the cow in his History of Sanskrit Literature (1900): "To no other animal has mankind owed so much, and the debt has been richly repaid in India with a veneration unknown in other lands. So important a factor has the cow proved in Indian life and thought, that an exhaustive account of her influence from the earliest times would form a noteworthy chapter in the history of civilization".—*Indian and Eastern Chemist, Mar. '41.*

IT is very poor taste to dress more expensively than everybody knows you can afford.—*The Science of Culture.*

Ten Ways I Can Improve Myself Financially

1. Increase my earnings;
2. Decrease unnecessary expense;
3. Save money.
4. Money makes money.
5. Invest—don't gamble.
6. Make family budget.
7. Hard work.
8. Study the business;
9. Pay cash for everything;
10. Increase credit balance.

—*The Bulletin of the San Juan De Dios Hospital, Mar. '41.*

Ideals of William Olser

"I HAVE had three personal ideals:

One, to do the day's work well and not to bother about to-morrow; second, to act the Golden Rule as far as in me lay toward my professional brethren and toward the patients committed to my care; and third, to cultivate a measure of equanimity that would enable me to bear success with humility, the affection of many friends without pride, and be ready when the day of sorrow and grief came to meet it with courge befitting a man."
—*The Bulletin of the San Juan De Dios Hospital. Mar. '41.*

Mind—Your Own Business

HOW often we have heard that phrase—but how many people realize that it hides a great truth? *Mind* is your own business, and you alone can strengthen or weaken its effects upon your whole life and the world.

If you do not straighten out your mental troubles you are having a continuous adverse effect on those around you, and to-day that is a crime.

As mind is the controlling force of all matter, and as you are living in a material body in a material world, your possibilities are unlimited—if you know how to use your mind.—*Health for All.*

Anxiety and Nutrition

DR. CHRISTOPHER ROLLESTON (C.M.O., Soke of Peterborough) believes that children from the industrial towns will derive great benefit from their transfer to reception areas. "It is an undoubted fact," he writes, "that the evacuees improved enormously in nutrition since their departure from the noise-racking effects of air raids. Few of the learned gentlemen who write on malnutrition take any notice of the effect of anxiety upon the nutritional state. There is no more certain way of losing flesh than to worry night and day. There is much truth in the old say 'laugh and grow fat.'"—*Medical Officer, July, '41.*

AT all times the child must be taught not to be afraid of bogies, ogres and the thousand and one imaginary monsters thought less nurses use to frighten children.—*The Science of Culture.*

The Distribution of Vitamin C in Foods Sold in the Market

WITH reference to an article under the above heading by G. Chappell in *Hygiene, Dec. '40.* Isabella Concepcion, M.D. observes in *the Journal of Phillippine Medical Association, Aug. '41,* that the work was undertaken to discover whether foods sold in street markets and cheap stores in England actually have sufficient vitamin C in them, when purchased, to furnish the daily requirement of 19-27 mg. of vitamin C for an adult of 60 kg. (Gothlin), when average quantities of them are consumed.

The results showed that the least expensive material was not necessarily the poorest source of vitamin C and might be more valuable than expensive foods.

Samples of cabbage from the cheap market contained 329 per cent as much vitamin C as samples from expensive sources. These results on comparison with figures recorded for fresh garden produce, showed that market foods have lost some of their vitamin C content on exposure for sale but still contain satisfactory amounts of ascorbic acid when purchased.

Results from different samples of fruits and vegetables showed wide variation. No data relating to storage before purchase were available, so limiting figures where used for each foods.

The effect of household storage after purchase was noted for foods from inexpensive and fashionable markets. The values obtained showed that the loss of ascorbic acid in foods stored in the home after a period of exposure for sale, though marked, was not as serious as has previously been indicated.

Syphilis and Pregnancy

EVERY woman known to have syphilis should be treated during every pregnancy, provided there are no positive reasons against such treatment, says *Hygeia, The Health Magazine* in a recent issue.

The magazine states that the time at which a woman with syphilis can conceive with the least risk of transmitting the disease to the unborn child is when under active and consistent treatmet for a latent or early syphilitic infection. *Hygeia* says:

"Treatment itself is the protection that the child requires, and whether the woman has had eighteen months or two years of treatment preceding conception, or not she should also be treated during the ensuing pregnancies. If and when the patient does become pregnant, whether her blood is positive or negative to tests for syphilis, she should receive, provided her condition warrants it, treatment. The treatment should be begun before the fifth month of the pregnancy, if the child is to have maximum protection."—*Texas State Journal of Medicine July 1941.*

Tuberculosis in India

Nearly	50,000,000	suffer in a year	
,,	5.000,000	die	,,
,,	13,698	,,	in a day
,,	570	,,	in an hour
,,	38	,,	in a minute

Approximately. 1 person dies every two seconds.—*Shiono Medical Messenger, Vol. 1. No. 5.*

Hate Hurts the Heart

AT a recent medical convention in Atlantic City, one of the speakers declared that hatred hurts the heart and shortens life. He said if we would love our enemies we would live longer, for the emotions of hatred raise the blood pressure and put more work on our hearts. He predicted that this war would cause a greater incidence in heart and arterial diseases, because of the tides of hate being whipped up by the winds of conflict. We know this veiwpoint is not without foundation, for neurologists, psychologists and psychiatrists all tell us that such emotions as envy, jealousy, sense of frustration, disappointment, and hate work havoc with our minds and have decidedly damaging reactions on our bodies. The man who hates dies prematurely; he who laughs, lasts.—*A. 41., Good Health.*

Mental Causes for Ulcers

THE increasing number of stomach ulcers was attributed to bad diet, fast eating, irregular hours and nervous tension, by Dr. S. A. Komarov of the Mc Gill University Medical School, speaking at a gathering of the National Gastroenterological Association in New York (*New York Times*, May 14, 1941). He warned especially against the quick lunch at the soda fountain in which so many people indulge with one eye on the clock. Freedom from anxiety, slow mastication, a well-balanced diet and restful surroundings provide the best insurance against ulcers.

Under war conditions in England, stomach ulcers are far more common than in peace times. The civilian population is harried by air raids, food restrictions and the uncertainties of the future. Men engaged in actual warfare are under far heavier emotional strains. Among those who went through the terrifying experiences of the retreat from Dunkirk, there are proportionately three times as many suffering from ulcer symptoms as in the general population.

Drs. Roy R. Snowden and Frank J. Gregg said that in a study of 5,000 patients at the Pittsburgh Diagnostic Clinic, about sixty per cent had digestive complaints.—*Good Health.*

Do You Know?

DIET should include some foods for vigorous chewing, says a noted nutritionist, explaining that teeth not exercised do not retain a high degree of health.

* * *

STAMMERING is so unusual in women that male stammerers, according to estimates, out-number the female at least by 10 to 1, and possibly 20 to 1.—*Science News Letter.*

THE acknowledgement of inferiority is the lowest form of cowardice.

"FOR the majority of men, whatever their income, its suspension for a single month would mean either bankruptcy, the usurer, or acute inconvenience", said Arnold Bennett. —*The Science of Culture.*

In Lighter Vein

A Medical paper advances the theory that "man is slightly taller in the morning than he is in the evening." We have never tested this, but we have certainly noticed a tendency to become "short" towards the end of the month.—*Dental Students' Mag.*

* * *

Foreman :—"When will your father's leg be well so that he can come back to work?"
Son :—"Oh, not for a long time yet."
Foreman :—"Why?"
Son :—"'Cause compensation's set in."

* * *

BETTY (just engaged) : "Doris, do you know what it feels like to be in love, to sit next to the man you adore, and feel your innermost soul vibrate?"

Doris :—"Sure, I do. I feel like that every time Joe takes me out on his motor-bike."—*Tile and Till.*

* * *

The modern home is one in which a switch regulates everything but the children.—*Ibid.*

Books and Periodicals

The Pole-Star—An Anglo-Vernacular monthly, edited by Lgr. S. Natarajan. Coimbotore Single Copy : As. 2.

This monthly is named after the celebrated Dhruva of Puranic fame, signifying steadiness and continuity of purpose and existence, which, we hope, the Journal will prove to deserve. It will contain articles on physical culture, a short story and a few other articles on topics of general interest.

The Indian Marriage Gazette—Edited by K. R. Hebbar, Madras. Subscription : Yearly Rs. 3 ; Per Copy As. 5/- in stamps.

If there is any institution, universal and social in its nature, to which almost all misery or happiness of mankind owes its existence—it is marriage. Both sexes are immediately concerned with it. Once ill-understood in its purpose, ill-maintained in practice, nothing can cause more misery than marriage. The conception of the nature and purpose of marriage must have been the common sense, rather than a moot question. In these days of confusion, a magazine such as the above monthly must be welcome as an impartial medium of exchange of thoughts on marriage on the one hand, and an organ of educating the public on the other.

The Bhagini Samaj, Mangalore—Report for 1940-41.—The Samaj is a branch of The All India Women's Conference. The Samaj, though limited in resources, is maintaining three Child-Welfare Centres and holding special classes for adult women in Hindi, basic English and other subjects. The membership of the Samaj is also on the rapid increase. We wish the Samaj more success.