Vol. X, No. 6] [JUNE. '32

HEALTH
A JOURNAL DEVOTED TO HEALTHFUL LIVING

Edited by
Dr. U. RAMA RAU & Dr. U. KRISHNA RAU, M.B., B.S.
Published in English, Tamil, Telugu & Canarese.
Editorial and Publishing Offices: 323, Thambu Chetty St., G. T., Madras.
Annual Subscription Re. 1/8 Post Paid. Foreign Rs. 2.

THE DIET OF THE INDIAN.

Questions have often been asked of us, 'Is the diet of the Indian wholesome and nutritious, sufficient and well-balanced? and so on, and we propose to answer them in this and succeeding articles. There is no gainsaying the fact that the traditional diet of the Hindu was based on solid scientific basis with a full realisation of their vitamin contents, and proper proportions.

Our ancients always maintained that a correct diet is indispensable both for the preservation of health and prevention of disease. Their scriptures abound with injunctions relating to (1) *the time* when food should be taken (2) *the place and environments* where meals should be taken (3) the *quantity* of meal to be taken each time (4) the *kinds of food* that should be taken and those that should be avoided and (5) the penalties such as *fast etc.* that are imposed on individuals to atone for their sins of omission and commission in the matter of dietary.

(1) First, with regard to *time*, our seers ruled that no more than three meals a day should be taken and that an interval of at least six hours should elapse between each meal. For instance, for an youngster, an early breakfast in the morning at 7, a dinner at 1 P.M. and a supper at 7 in the night will be the ideal meal time. This is generally observed now by people living in village parts, whose avocations do not carry them far away from their homes nor fix them to their desks in any office or firm formore than 8 hours in the day at a stretch, with perhaps a very short interval for lunch, as in cities and towns. Only two meals are enjoined for middle-aged men, and one meal to the old and infirm whose digestion has been impaired and digestive organs have been

decayed. There is a proverb in Tamil which means, that he who takes only one meal a day is a saint (ஞானி), he who takes two meals a day is a healthy and prosperous man (போகி) and he who takes three meals a day (evidently three full meals) is a diseased man (ரோகி). How true is this saying! The morning meal should be light and nutritious. Modern savants of the west advise fruit and fruit salads, milk and honey, and milk and eggs for breakfast. But the average Indian, poor as he is, cannot afford these luxuries. Rice or ragi gruels with either curd or butter milk is generally the breakfast menu of the poor South Indians, while in the north of India, chappatties made of wheat and milk are used. Curd and butter-milk are the vital parts of our diet, which the present day Indian, out of ignorance, has replaced by coffee, tea, and the like. Milk is no doubt a good food but unless we are sure that the milk is uncontaminated, that the cow yielding it is fed and sheltered properly and in hygienic conditions, milk will prove to be a source of ill-health and spreading of epidemics such as typhoid, cholera and intestinal disorders. In fact, one doctor has gone even to the length of saying that the bacteria in milk are somewhat greater than those contained in sewage. The best way to obviate these dangers is to take soured milk (*i. e.*,) curd or buttermilk, which is free from bacilli of any kind. One Russian doctor, Meschnikoff, referring to Indian diet observed, "If in spite of child marriage, climatic conditions and poverty, there are Indians living up to a ripe old age, it is because of the butter-milk contained in their diet. It destroys all putrefactive elements in the bowels and this promotes longevity." Tea and coffee have become the bane of modern Indians and are slowly but surely undermining and sapping even the little vitality that has been left in them, not to speak of ruining them economically too, especially when it is considered that their wage-earning capacity is miserably low—too low to admit these costly stuffs in their dietary. Coffee and tea are stimulants and the enervating climatic condition of India, especially Southern India, do not warrant such stimulating drinks. Besides, they contain injurious poisons and for that reason, are taboo. Our ancients always prescribed plain and pure water for drinking. Soda, lemonade, ginger ale and other 'ades' and 'ales' sold in bazaars are no effective substitutes for water but on the other hand, are costly and injurious substances, especially if they are prepared under unhygienic conditions and handled by unclean persons. Eating between meals is said to be injurious to health and this modern scientific finding is endorsed also by the ancient law-giver, Manu, who says in Lec. 11-56 "Let him not give the leavings to any one, and *let him also not eat between (times)*; let him not eat to excess and let him not go anywhere with a morsel in his mouth".

(2) *Secondly coming to place and environments*, it is needless to point out that the cooking and dining rooms should be airy, well-lighted and ventilated and kept scrupulously clean. The cooking utensils and service plates should also be clean and the whole atmosphere should present a gay appearance. The eater and the server must for the time being set at rest all their cares and anxieties, their wrath and quarrels, and be cool and collected and happy in thoughts. Unfortunately, in our Hindu homes, at the present day, the dinner time is always, seized by the poor wives to indent on their hungry

husbands for all their wants, clothes or jewels, or *samans* for the household. The poor husband, if already hard-pressed for money or disappointed in his speculations, gets irritated and a prolonged state of such existence forms the basis of innumerable ailments beginning with digestive disorders and ending in chronic dyspepsia. The mental equilibrium of the eater should not be disturbed and here is what your ancient code of Manu observes in this behalf:—"Let a Brahman always eat his food after having rinsed his mouth *and (in a) collected (state of mind)*; having eaten, let him thoroughly rinse his mouth and sprinkle with water the 'hollow' parts". Here both personal cleanliness and mental coolness are advocated, while partaking of one's meals.

(3) Thirdly, let us consider the *quantity* of meals to be taken at a time. You should never fully load your stomach. The food must get itself sufficiently mixed up with the gastric juice, otherwise indigestion would result. Overeating is forbidden in our shastras. "*Overeating is unwholesome, prejudicial to long life* and attainment of heaven, it is vicious (and) detested by people; let him therefore avoid it": (Manu 11·54). As the common household saying goes, "you must fill half the stomach with food, one-fourth with water and leave the remainder always empty".

As space forbids us to proceed further we shall in the succeeding articles discuss items (4) and (5), viz. the foods that should be taken and avoided and fasting respectively.

(To be continued).

VARIATIONS IN HUMAN MILK.

BY

DR. J. L. SAXONA, M.R.A.S.,

Medical Officer, Fort Dispensary, Partabgarh City.

The general principles concerning the breast feeding of infants were discussed by me in my last article published in the Special Number—January 1932—of 'Health'. Babies are not infrequently brought to hospitals complaining that mothers' milk does not agree with them, and advice is sought for a suitable substitute for breast-feeding. While at times, though comparatively rarely, medical men are confronted with babies in whom a very careful examination reveals no disease or disorder, they find that these babies fail to thrive on an abundant supply of mothers' milk. To elucidate these points I propose to deal in the following few lines with the variations in human milk.

Quantity. The average quantity of milk secreted in 24 hours increases gradually from 10 to 15 ounces at the end of the first week upto 30 to 40 ounces at the end of the ninth month. The amount taken by the infant at each feed increases from about an ounce during the first week upto about 3 ounces at the end of the first month; then varies from 2 to 5 ounces at the end of the third month, and thereafter from 3 to 7 ounces.

The accurate measurement of milk secreted by the mother or of that taken by the infant is no easy matter, and fortunately seldom necessary. However a rough idea can be had by weighing the infant immediately before and after each feed and the total amount calculated for 24 hours. For practical purposes any marked deficiency in the secretion of milk can hardly escape the mother's observation, and is also obvious to any one who watches the baby at the breast. The child sucks for a few minutes vigorously, then failing to obtain the milk rejects the nipple and cries; in other cases it remains sucking for a much longer period than it should, evidently getting the milk very slowly.

Quality. The proportion of different constituents of human milk is subject to variations, so much so that the samples taken from the same woman differ at different intervals. For practical purposes sugar and salts may be taken as constant. Variations of considerable importance are met with in fat and proteids, and the excess or deficiency of either of these may render the milk unsuitable for the infant.

The actual proportion of the different constituents of human milk can only be determined by analysis, which is no easy matter. A rough estimate of the proportion of proteids, can, however, be made from the specific gravity, provided the proportion of fat is known. Taking the sugar and salts as constant, any variations in specific gravity must depend on fats or proteids. The higher the percentage of fats the lower the specific gravity, and consequently if with a high proportion of fat the specific gravity is high, the percentage of proteids must be high; and similarly if with a low percentage of fats the specific gravity is low, the proportion of proteids must be below the average. In case the proportion of fat is normal, the specific gravity will vary as the percentage of proteids. It may be noted here that for determining the specific gravity of mother's milk only the middle milk should be taken, as the fore-milk or after-milk is very likely to give an incorrect estimate.

An estimate of the percentage of fat can be made by the following simple method:—A five cubic centimetre measure with a diameter of ⅜ inch and graduated in cubic centimetres and millimetres is procured. This is filled with breast milk upto the 5 cc. mark, then corked and allowed to stand in a warm room (about 70° F.) for 24 hours. The cream rises to the top and can be read off in cubic millimetres. Generally the cream readings correspond approximately with the fat percentage as shown below—

Cream,			Fat.
2 cubic millimetres	are	equal to	2·5 p. c.
3 ,,	,,	,	3·5 p. c.
4 ,,	,,	,,	4·5 p. c.
5 ,,	,,	,,	5·5 p. c.

This simple method is very useful for determining whether the milk is poor or rich in fat. A milk which contains less than 2 cubic millimetres of cream is decidedly deficient in fat.

The most common defect in mother's milk is excess of proteids and deficiency of fat; and upon one or the other of these faults depend a large proportion of the gastrointestinal disorders—the so called disagreeing of the milk—of the infants at the breast. If an infant is not thriving at the breast it is very necessary to determine which constituent, if any, is at fault. Weaning is very often recommended

without any investigation of the milk, and consequently without any attempt to correct the defect which can quite often be rectified by very simple means, and thereby the child spared the inconvenience and dangers of artificial feeding.

Excess of proteids may be suspected if the stool is pale and the infant suffers from colicky pains, constipation and perhaps vomiting of curd. Such a condition is habitual in certain females and they are unfit to nurse their infants. When it is an acquired condition, as is frequently the case, it is mainly due to too frequent nursing. It has been proved that by increasing the frequency of milking the proteids in the cow's milk are increased; and clinical experience goes to show that the same result occurs in human milk also. Hence it follows that the excess of proteids can easily be reduced by lengthening the intervals between the feeds. In certain cases a sedentary life with a diet too rich in proteids is the cause of excess of proteids, while in others menstruation is responsible for a temporary increase in the proportion of proteids. To remedy these defects mother's habits and diet should be regulated. If in spite of these the child is unable to digest the proteids in the milk, a table—spoonful of plain water or barley water may be given to the infant immediately before nursing. This will dilute the proteids and render it digestible. If this also fails, Soda Bicarb 2 grains and Papain 1 grain given immediately before feeding will prove successful.

Deficiency of proteids seldom occurs alone. It is almost invariably associated with deficiency of fat, and when both are present symptoms are generally due to lack of fat than to the lack of proteids. The milk has a watery appearance and is likely to produce troublesome flatulence. The child ceases to gain weight, and begins to waste even though the flow of milk is abundant. In such cases the milk can be improved by increasing the proteids in the mother's diet and by attention to her general health.

Excess of fat hardly ever produces any unpleasant symptoms, save for an occasional troublesome vomiting. A reduction of fat in the mother's diet may remove this fault.

Deficiency of fat may occur alone or as already said, in association with deficiency of proteids. Infants fed on such milk fail to increase in weight, suffer from chronic constipation and its attendant troubles, and may even show signs of rickets. This condition should at first be met with by increasing the proteids in the mother's diet. Meat, fish and oatmeal porridge are valuable for this purpose, and a liberal supply of milk and eggs should be taken freely. If these measures prove unsuccessful and the proportion of fats fails to rise, the infant may be given two or three feeds daily of hot water and cream, or of whey and cream; but if this may not be practicable 10-20 drops of cod liver oil according to the age of child may be given twice daily.

It may be noted here that the deficiency of fats should not be regarded as a reason for weaning. Fats can be supplied in an easily digestible form by supplementing the mother's milk as stated above. If a child is weaned entirely it becomes necessary to supply proteids also; and in artificial feeding it is the proteids alone which it is very difficult to supply in an easily digestible form.

Conditions affecting Milk.—The return of menses is no reason in itself for

premature weaning, though an idea seems to prevail that when this occurs the milk becomes harmful. Some variations in the composition of milk certainly occur, but they are transitory and in most cases so slight as to produce no evil effects. Pregnancy, too, does not necessarily call for immediate weaning. Nursing can be safely prolonged for 3 or 4 months after the mother becomes pregnant, and after this it is not advisable to continue suckling. But if the quality of milk seems to be poor, then the infant should be weaned.

The quality of milk is also sometimes seriously affected by any strong emotion, such as fright, anger or grief; and under these conditions may cause severe gastro-intestinal disturbances in the infant. This is generally transitory and should be met with by artificially feeding the infant for two or three days, and thereafter it may again be put to breast. In some very emotional women the quality of milk is so deteriorated that there is no alternative but to wean the child.

Effect of Drugs on Milk.—Certain drugs are excreted partly in the milk and may affect the infant. With this idea in view drugs are often administered to the mother for the sake of their action on the infant. This has no advantage. In the first place the effect on the infant is uncertain, and secondly there is no means of accurately regulating the dose which the infant obtains. It is, therefore, far better and more effectual to give the drugs to the infant.

DISEASE OF DOG BITE

BY

G. NARASIMHASWAMI AIYANGAR

A. R. San; I (London). Sanitary Inspector, Vizianagaram Municipality

It is a pity that most of the Indians are quite unmindful of the dangers caused by dog bites and treat them with slight, in spite of the fact that many lives are being lost by such infections. The Government and the Local Bodies have provided ample facilities for the early treatment of dog bitten people in that where there is no relief, persons are carried free by rail to the Headquarters hospitals and the treatment given free of cost. Ignorance and apathy are mainly responsible for such a state and it is regrettable that simply because the effect of dog bite is not immediate but remote, early attention is not bestowed as it ought to be.

What laymen call the bite of a dog as a simple bite, medical men call it a dangerous bite and have given it a terrible name as 'Rabies' and 'Hydrophobia.' This name would alarm us and it really does. Doctors have rightly given it a terrible name for it is a more terrible disease. Let us now consider what rabies is and how it is caused.

Rabies is a common disease in dogs but animals like the horse, the jackal and even the cat is also affected. This disease is also found in flesh eating animals which have good canine teeth. The dog affected with rabies will in the beginning behave in a peculiar manner. A domestic dog entirely

changes itself and becomes strange in its behaviour biting every one. The dog shows a tendency to sleep always and avoids light. The tongue of the dog hangs out and saliva begins to dribble from its mouth. The first is the reaction stage and the second is known as the depressing stage in it.

The infection is carried to man by the bite of the rabid animal. Sometimes the licking of the part of a person by a rabid dog which has the virus of the disease in the saliva, is quite sufficient to attack him with Rabies. The incubation period, or the period between the reception of the germ in the body and the actual occurrence of the disease, is long in human beings. But when the actual attack comes the person will be bed-ridden, the throat being the foremost part to be infected and death would almost be inevitable. The muscles in the mouth and throat would be paralysed and if water is shown to such a patient for drinking, a sort of feeling passes through him being unable to swallow the water, and it induces him to convulsions.

A person bitten by a dog has to be given treatment either if the dog were to be known definitely mad or even if there were any suspicion about it but should under no circumstances be neglected. If the dog were to be a healthy one it has to be tied for 10 consecutive days separately and watched so that if it were to die within this period it can be fairly concluded that it was bad and treatment given to the person bitten by it. Immediate attention to the wound has to be paid either by cauterising the wound with heat or acids *i.e.* with a red hot iron or pure carbolic acid. Fuming nitric acid is also used which gives the best results. Pasteure's antirabic treatment, with the vaccine prepared from the virus of the disease has now revolutionised the idea of rabies. This vaccine is prepared by taking portions of the brain and spinal cord of a dead rabid animal and an emulsion is made of it. Again to this emulsion carbolic acid is added and the vaccine finally prepared. A patient injected with this vaccine will have complete protection. Vaccine of rabies is a living virus and it is used for the prevention of rabies but not for the acceleration of the disease. There are however two kinds of viruses one the street virus and the other, the fixed virus. Street virus is the virus derived from rabid street dogs whereas the fixed virus is prepared by passing street virus through a rabbit. Fixed virus is non-virulent to men and animals but street virus causes rabies. The best prevention of rabies would be the control of dogs either by killing them in some season or the other or by muzzling them. If dogs are muzzled completely for two years rabies can be eradicated, if meanwhile no frsh cases are imported. This system appears to have been adopted in Newfoundland with much success. In Japan the dogs are immunized. Figures taken in 1924 show that of the 10,000 which were injected with the vaccine only 41 died whereas of the 50,000 which were not injected half the number died of rabies. Strict quarantine for not less than six months would be more useful and during this period the animals should all be muzzled.

So, let us beware of the dogs and keep them under control to prevent the damage they cause us. Let always the popular adage "Prevention is better than cure" be kept in view and steps taken to remedy this evil.

THE MENOPAUSE

BY

PRAKASHDEV A. SHARMA, EX. F.A.O.H., .P.L.A. INC.,

c/o B. Y. L. Nair Hospital, Bombay, 8.

A female passes through something of a physical crisis twice in her life viz. first at the time of establishment of menstruation at the beginning of the adolescent period and secondly at the cessation of this function. We know that the child bearing period extends from about fourteen years to forty-five or even fifty years. The woman is capable of fulfilling her function as a mother during this period only. I need scarcely record that the menopause, the climacteric or the change of life are all synonymous terms. They are applied to that time in a woman's life, when menstruation comes to an end associated with certain phenomena.

I must strongly emphasise at the outset that the all wise Nature never intended the menopause to be attended with physical ailments. They are due to women not living a normal, sane, healthy existence free from toxins, enervating habits, pelvic congestions and irritations. There would be no trouble at this time, if women forget "Change of life" bugaboo.

It is a grim fact that the present day knowledge is unable to anticipate with certainty the features, that will be experienced by the particular individual. However, the various features and symptoms met with in women at this juncture are as follows:—

The most prominent feature is the gradual cessation of menstruation. It is abrupt in rare cases. The menses are scanty as well as profuse at times. The flow is suppressed sometimes. Anyhow there is some such irregularity noticed before the period ceases finally. It is essential for the woman to remain in bed during the profuse period in order to avoid a serious flooding. If the hæmorrhage is severe, as it is at times, the services of an expert gynaecologist must be sought. A thorough examination is absolutely necessary to exclude tumours and malignant disease of the uterus, which are not uncommon at this period. An early diagnosis is essential for the successful treatment.

Definite changes of pelvic organs are marked. All the organs of the reproductive system atrophy. The process of change is, as a rule, a gradual one. It may extend to three years for its completion. There is usually distinct tendency towards obesity, which is distributed somewhat generally throughout the body. The breasts are an exception, which decrease a little in size and get shrunken accordingly. This is due to the vital powers being relieved of the extra burden of providing for the reproduction process. Mortality tables bear testimony to their increased vitality, as the death rate of women between the ages of forty and fifty is lower than at any other period after puberty. It is even lower than the death rate of men between the same period. This fact should go a long way to relieve women of the serious apprehensions, which the majority of them are inclined to feel at this period.

The nervous symptoms generally complained of are headache, neuralgia, backache, irritability, flushing of face

and body, capricious appetite and indigestion accompanied by flatulence and constipation. The mental condition of the individual is very definitely affected. Irritability of temper is unfortunately common. Women are apt to lose their power of judgment and clear thought. They become restless, hesitating, indecisive, jumpy, moody and depressed. Their sleep is disturbed by distressing dreams and may evidence their fear of going insane.

Apart from a tendency to flooding, there are apt to be hæmorrhages from other parts i.e., bleeding from the nose, which is thought to be a welcome relief unless unduly severe. Hot flushes, feeling of faintness or choking sensations of heat often accompanied by sweating, followed by chilliness are experienced. They are due to some vasomotor disturbance.

Another probable distressing irregularity is palpitation following some exertion or emotion. The heart may begin to throb causing the greatest discomfort for no apparent reason. A woman should always remember that menopause never causes heart disease, although it may produce sudden attack of palpitation indicating a disturbance of the normal course of her life. This trouble disappears with the final adjustment of her system. It is paramount to give strict attention to rules of simple hygienic living. All stimulants are tabooed.

As a rule, the desire for sexual intercourse, gradually ceases and finally dies with the cessation of ovulation and menstruation. But sometimes at menopause, excessive sexual desire is felt, because of local congestion and disturbed nerves. This is a morbid condition, which is generally increased by the effort to gratify it. The condition should be recognised as such by the individual and should be overcome by the use of hot vaginal douches and careful exercising.

The above, in short, are the manifestations met with in various degrees at the climacteric conditions. They call for the sympathetic understanding on the part of those around the women. They should be asked to have patience with their distressing symptoms, tilll their day of completion of adjustment comes, when they will once more find themselves competent to fill a useful place in life. The necessary treatment should be given at the same time, where and when need be.

The symptoms of menopause, as a rule, gradually subside. The treatment in case of urgent symptoms is naturally palliative and symptomatic because of the lack of any very definite knowledge. The treatment is, strictly speaking, in the domain of those doctors, who have made a special study in women's diseases. However, I just mention in passing, a few practical and useful hints in this connection :—

The use of hot water in various forms at this time is most efficacious. Heat is unquestionably beneficial for pain of the back or bowels or elsewhere. Hot applications throughout the spine help in quieting the nerves. The hot vaginal douche relieves tenderness and congestions of uterus and ovaries. It tends to control excessive flow. The temperature of the water should be 110—115° Fahrenheit to produce the desired results. Warm sitz bath will relieve the headache. The affected parts should be sponged with hot water to relieve flushings. Sponging with hot salt water is efficacious for profuse sweating. For any specific treatment that may be necessary a doctor must

always be consulted. Sufficient intake of potable water between two principal meals, (about 4 to 5 pints per day), fresh, green, leafy vegetables, fruit juices, tomatoes, butter milk, abdominal exercises and very rare use of laxatives and enema ensure regular bowel action.

It must be understood once for all that menopause is as natural, normal and physiological a process, as menstruation. There is absolutely no reason for women to dread this period and think it to be the end of their period of usefulness, as is unfortunately the case with a good many of them. Their inability to bring children into the world should and does not mean that they cease to be mothers in the truest and most comprehensive sense of the word, for motherhood is surely more than simply a physical function. It is purely spiritual in its essence, so does Mr. Bernard Macfaden, the world celebrated American authority on Physical culture, say. The statement is doubtless true to the very letter. As the physical mother nourishes and sustains the body of her offspring, so does the spiritual mother inspire and develop the highest and best in all, with whom she comes in contact. The woman should consider it an extension of her field of activity rather than lessening of her usefulness.

I may just add that there is a strong tendency to gloomy feelings with many women at this period. They unnecessarily fret, frown, worry and magnify hundredfold their minor complaints. Their oversensitive nature and versatile imagination aggravate manifold every pain. They make their life a veritable hell not to themselves only, but to others around them. Auto-suggestion and Psychotherapy do a world of good in such cases, so they must confidently be availed of. Complete change of scene and occupation is the most effective treatment in very many cases. It is important to establish an absorbing interest in something out of self thereby preventing introspection. They must create some healthy hobby to keep them busy with.

In conclusion, it must be admitted that women by scrupulously following the suggestions outlined above in word, thought and deed could surely add many a year of useful work and joy to their lives. They will be better, healthier, happier, more contented and optimistic women at no distantday by strictly living up to these suggestions. Their outlook on life and its varied and significant functions will be enviably humanised and revolutionised ere long. I dare say that it will become catholic and cosmopolitan. Let the women concerned sincerely translate the spirit of this article into practice and see for themselves the world of difference it makes in their lives.

HEALTH KNOWLEDGE LENGTHENS LIFE.

In the the last twenty years the expectation of life among the industrial policyholders of the Metropolitan Life Insurance Company has increased nearly eleven years. In 1911-12 the figure was 46.63 years; a decade later it was 51.14, while at the close of 1930, it was 57.36 years. This result is no doubt in part due to the fact that this company is actively engaged in promoting the health of its policyholders. Trained nurses are employed to care for them in sickness and to teach housewives diet and domestic sanitation. Pamphlets are issued containing advice on how to prevent certain diseases and a general health crusade is carried on in magazine advertising. All this is not only philanthropy but good business as well; health cultivation is a profitable procedure.—"Good Health".

GLARE AND TEMPERAMENT

BY

DR. K. P. POPAT, L. R. C. P., C. S., L. M.,

Secunderabad (Deccan).

Glare while it is as ancient as light itself, has only become a serious menace to man's eyesight under the artificial conditions of modern civilization. There are three degrees of glare :—1. Veiling glare. 2. Dazzle glare. 3 Blinding glare.

Blinding glare is an over exposure of excessive brightness on retina to which the eye cannot adapt itself. As for instance the direct glare of the sun, an approaching automobile's headlight or excessive illumination. The eyes are temporarily blinded when one passes from a dark room into a bright and brilliantly lighted one or into a bright sunshine. Reflected glare may also cause glare blindness, as for instance a long exposure to the dazzling whiteness of snow fields or glittering desert sands. Automobilists after driving constantly for several days frequently experience a temporary blindness or dimming vision due to retinal exhaustion and normal visual acuity does not return until the dissipated photochemical substances of the retina have been restored.

Glare causes the lids screwed up, the brows puckered and the iris maintained in a state of constant contraction in order to exclude the light. The expenditure of nervous energy required to bring this protective mechanism into play tends to produce braintire, drowsiness, headache and discomfort around the eyes.

Psychology teaches us that different physical conditions have different effects upon our temperaments. Some foods eaten daily are said to cause a lively disposition and other foods have the reverse effect.

Sunlight acts upon our bodies as a mild exhilarant if taken in small quantities. Acting upon our eyes, it is not the quantity of the light which causes irritation of the nervous system.

Psychology recognizes the influence of eyestrain and glare upon literary workers, which develop unhappy temperaments, digestive, alimentary, circulatory and nervous troubles.

After sustained work or study or long drive in glare we are likely to be irritable, or a little cross or not inclined to be as animated and sociable as we should. Glare has irritated our eyes, our nerves have felt the strain and passed it on to our bodies and minds. Brain workers are inclined to have certain periods during the day, when they are particularly inclined to have spells of temperament especially in the afternoon.

Glass-topped desks, highly polished wooden tops etc , cause glare. It reflects bright prints of light into the eye, while papers less brightly lighted are being examined. The eye tries to adjust itself to both conditions, the pupil alternately expands and contracts and the result is eyestrain, which causes the worker to commit mistakes and also lowers his general efficiency. Tops of some non reflecting materials. dark coloured leather or cloth for example are much the best.

Overworked eye muscles have decided tendency to cause depression. It lowers our vitality, makes us sleepy and drowsy when reading and produces "All gone" or exhausted about 5 P. M., when some persons resort to half whisky, tea or cigarettes instead of taking mental rest which leads to unavoidable habit, which in the end tell upon general health and the nerves.

Differently tinted lenses are used in a kind of indiscriminate and indefinite way without any special reference to anything in particular. Some tints produce more depression than others and some interfere with colour scheme. Like all fashions the reasonableness is lost in unreasonableness.

Dark tinted glasses selected by the patients themselves seeing others using them, should never be used as it *causes retina to be so very sensitive that darker and darker tints are resorted to*, leading to pathological ciliary and retinal functions, nervousness, irritability etc. They distort actual colours of scenery; pictures etc., and are in fact a danger to eyesight and temperament.—*Deccan Medical Journal.*

THE BAEL.

BY

JOGENDRANATH BISWAS,

Duflating T. E. Titabar P.O. (ASSAM).

Bael tree is a sacred tree to the Hindus, as it is a great favourite of Mhadev who is said to have been the composer of the famous Ayurved treatment. Each and every part of the tree is possessed of some medicinal property; this is most probably why he showed great faith in its qualities. It is said in the Shastras that one who breathes his last under a Bael tree is readily admitted into Heaven. There can be no worship of the Shiva without Bael leaf. The Bael tree is not only an important tree in so far as religion is concerned but it is also invaluable in Medicine. It grows in most part of India; it grows in the natural state or is cultivated.

Medicinal use:—Leaf, bark, ripe and unripe fruits, bark of roots.

Dose:—Juice of leaf 1 to 2 tolas
Decoction of bark 5 to 10 tolas
Dry unripe fruit (Bael shunt) powder ½ tola.

Bael is a medium sized tree. Its trunk is covered with thorns one inch in length. The fruit is round in shape resembling that of an infant's head, its diameter varying from 2 to 6 inches. Some fruits grow very big in size, as big as a grown up man's head, and sometimes it grows still bigger. The fruit has a very hard shell outside, pulp within and seeds in the pulp. Dysentery is often cured by taking with cane-sugar the unripe fruit heated on the fire, and it also relieves griping pain. One tola of decoction of root bark taken when cool with a little honey brings relief in vomiting. When a piles patient gets run down with pain, an application of warm decoction of root-bark or a fomentation with it relieves him of the pain.

Chemical composition:—The pulp chiefly contains mucillage. The leaf possesses an oil with a faint yellowish green colour, a peculiar aromatic odour, and a slightly bitter taste.

Action and uses:—Offensive smell coming out from bodies of fat persons due to sweating is removed by rubbing juice of the bael leaf. This juice is a mild laxative and when taken in ordinary fever, clears the bowels and consequently fever remits. Decoction of fresh leaves is a destroyer of fever and an expectorant. Bael leaf juice taken with a little powder of black pepper relieves dropsy. The juice is antibilious. It is very useful in jaundice when constipation is present. The unripe fruit is astringent and stomachic and is used in diarrhoea and dysentery. For this the pulp of fire-heated unripe fruit has to be taken with sugar in the morning.

The ripe fruit is sweet, flavouring and mild laxative. Those whose bowels are not usually clear will find a good medicine in it. Their bowels will move by taking in the morning and on an empty stomach the ripe fruit or a sherbat prepared from it. The daily use of ripe bael as long as it is available, helps to clear bowels and cure dyspepsia. A piles patient is greatly relieved if he takes ripe bael: but it only relieves the pain and cannot cure the disease.

When the unripe fruit is cut into slices after removing its shell, seeds and gum, and then dried in the sun it becomes Bael *Shunt* which is astringent and stomachic. In chronic diarrhoea and dysentery it is very useful, and in chronic dysentery the unripe bael is more useful than the ripe.

The slices, if they are boiled in simple syrup, instead of drying, makes bael jam. A good jam is made from a full grown thick fruit. It is both a food and a medicine. In dyspeptic persons it is very useful for the removal of wind.

I offer my most sincere thanks to my Chief Medical Officer Dr. P. Bobbett, M.A., M.B., D.P.H. for kindly looking over the article and also his permission to publish it.—*The Indian Medical Journal.*

RULES FOR RESUSCITATION FROM ELECTRICAL SHOCK.

ISSUED BY THE ELECTRICAL EMPLOYERS' ASSOCIATION OF ONTARIO, CANADA.

In order that first-aiders may be familiar with resuscitation, it is necessary to give frequent practical instructions and demonstrations in the use of these rules, and to require Superintendents to be responsible for the regular practice of the method by all members. It is further recommended that, wherever possible, these practice meetings be held monthly, and that a record be kept of the attendance.

The Prone Pressure Method of Artificial Respiration is equally applicable to all cases of suspended respiration, whether due to electrical shock, drowning, inhalation of gas, smoke, fumes or other causes.

Follow these instructions even if the victim appears dead.

I.—FREE PATIENT FROM THE CIRCUIT IMMEDIATELY.

1. Quickly release patient from current, being careful to avoid receiving a shock. Use any dry non-conductor (rubber gloves, clothing, wood, rope,

etc.) to remove either victim or conductor. Beware of using metal or any moist material. If necessary, shut off current.

2. As soon as patient is clear of conductor rapidly feel with your fingers in his mouth and throat and remove any foreign body (tobacco, false teeth, etc.). If mouth is tight shut, pay no more attention to it until later. Do not stop to loosen patient's clothing, but immediately begin actual resuscitation. Every moment of delay is serious. *Proceed as follows* :—

II.—INSTANTLY ATTEND TO PATIENT'S BREATHING.

1. Lay patient on his belly, one arm extended directly over head, the other arm bent at elbow and with face turned outward and resting on hand and forearm so that the nose and mouth are free for breathing.

2. Kneel straddling the patient's thighs with your knees placed at a distance from the hip bones.

Place the palms of the hands on the small of the back with fingers resting on the ribs, the little finger just touching lowest rib, with the thumb and fingers in a natural position, and the tips of the fingers just out of sight.

3. With arms held straight, swing forward slowly so that the weight of your body is gradually brought to bear upon the patient. The shoulder should be directly over the heel of the hand at the end of the forward swing. Do not bend your elbows. This operation should take about two seconds.

4. Now immediately swing backward so as to completely remove the pressure.

5. After two seconds swing forward again. Thus repeat deliberately twelve to fifteen times a minute the double movement of compression and release, a complete respiration in four or five seconds.

6. Continue artificial respiration without interruption until natural breathing is restored, if necessary, four hours or longer, or until a physician declares the patient is dead.

7. As soon as this artificial respiration has been started and while it is being continued, an assistant should loosen any tight clothing about the patient's neck, chest or waist. *Keep the patient warm.* Do not give any liquids whatever by mouth until the patient is fully conscious.

8. To avoid strain on the heart when the patient revives, he should be kept lying down and not allowed to stand or sit up. It the doctor has not arrived by the time the patient has revived, he should be given some stimulant, such as one teaspoonful of aromatic spirits of ammonia in a small glass of water or a hot drink of coffee or tea, etc. The patient should be kept warm.

9. Resuscitation should be carried on at the nearest possible point to where the patient received his injuries. He should not be moved from this point until he is breathing normally of his own volition, and then moved only in a lying position. Should it be necessary due to extreme weather conditions, etc., to remove the patient before he is breathing normally, resuscitation should be carried on during the time that he is being moved.

10. A brief return of natural respiration is not a certain indication for stopping the resuscitation. Not infrequently, the patient after a temporary recovery of respiration, stops breathing again. The patient must be watched, and if natural breathing stops, artificial respiration should be resumed at once.

11. In carrying out resuscitation, it may be necessary to change the operator. This change must be made without losing the rhythm of respiration. By this procedure no confusion results at the time of change of operator and a regular rhythm is kept up.

III.—SEND FOR DOCTOR.

If alone with victim, do not neglect immediate and continued resuscitation in order to call a doctor. Start at once—the first few minutes are valuable. If other persons are present, send one of them for a doctor without a moment's delay.

The ordinary and general tests for death should not be accepted, and any doctor should make several very careful and final examinations, and be sure specific evidence is present before pronouncing the patient dead.—*First Aid.*

MOSQUITOS IN BRITAIN.

It is well known that the presence of mosquitos is not a serious menace to human health in these islands. We have, it is true, no fewer than three species of anopheles, none of them very rare, and each one known to be a carrier of malaria in other countries; but, owing probably to conditions of temperature, locally acquired infection is a rarity. Occasional deaths occur from septicæmia consequent on the bites of mosquitos, but these events also are exceedingly unusual. We may say, then, that the British mosquitos should be considered as a nuisance rather than as a menace to health, and this is fortunate, for we have some twenty-six species indigenous to our country. Some of those which breed in ponds cause inconvenience, as anyone may experience who visits the public woodlands round London at this time of the year; but by far the greatest nuisance is occasioned by two species which breed only in salt marshes round our coast. The same varieties of mosquito, or their near relatives, have attracted a great deal of attention in parts of Canada, New England, and elsewhere, and it may be stated generally that the salt marsh mosquitos are distinguished by inflicting an unusually painful bite, by their diurnal activity, and by their very great range of flight. They travel in from the Essex marshes and bite people in the London docks, so that it is not surprising that in America, that continent of wide spaces and great distances, they are reputed to travel as much as forty miles. So far as Great Britain is concerned, the control of the mosquito which breeds in salt marshes has been worked out and applied by Mr. J. F. Marshall of the British Mosquito Control Institute at Hayling Island. We understand that his home is on the island. But a few years ago it was customary for the residents to vacate their homes in July and August, and leave the island as far as possible to the mosquitos. Times have changed, the mosquitos have vanished, and the island is now populated at that season by holiday makers. In a pamphlet before us Mr. Marshall discusses the organization of control. He shows that nothing effective can be done unless the particular species is identified; this is because different sorts of mos-

quito breed in different places, and it is idle to blame the domestic water butt if the insects are coming from a pond in a neighbouring wood. When the insect has been identified, its breeding-place may be located and abolished without great difficulty; for example, in the case of the salt marsh mosquito, which breeds in brackish water that is not used by cattle, the mosquito larvæ may be controlled by oiling the water or poisoning it with an appropriate dose of cresol.—*Brit. M. J.*, 2: 329, 1930.—*The Canadian Medical Association.*

THE TEACHING OF VERY YOUNG CHILDREN.

BY

MRS. ETHEL MCLAREN

(*Nee Stevenson*), *Jr. of School Hygiene and Physical Education, July 1931. Vol. XXIII, pages 133 and 134.*

"How and where children of 2½ years to 5½ years old should be taught is a question much discussed. It is certain that if a child can read and write easily and do simple arithmetic when 6 or 7 years old, all is well for him to start his school career. It is also certain that it is of paramount importance that every child in early years should have adequate time for sleep, fresh air and proper food.

I have had experience in many schools of so-called "nursery" children in England and in Italy and in scores of English nurseries, and I have taught large and small classes of such children. Certain conclusions have forced themselves upon me, although better methods of dealing with this fascinating age are always being found.

Very few children have the opportunity of developing their muscles. Before two years old, flat-feet, knockknees, contracted chests, weak abdominal muscles are repeatedly noticed. It should be part of a daily routine to use the weak muscles, thus correcting the physical defects without concentrating attention on the weakness of the children.

Then children need SPACE, room to run without fear of collision and an uncritical atmosphere, which does not oppress their individuality; they should learn prompt obedience and the habit of making decisions. Incidentally the ideal of work is delightful to them. They should be treated with respect and politeness, as reasonable and individual beings, and never talked down to. That the effort made rather than the result achieved, is to be praised goes without saying.

It is good for children to be with others of the same age and this is not possible in most nurseries at home, where they are sometimes neglected and sometimes over stimulated."

"It should be remembered that fatigue is reached very early at nursery age; there is practically no reserve of energy, so that continued effort should be not asked for. Mercifully a healthy child instinctively does not listen when his power of attention is waning and so exhaustion is prevented. Concentration

is developed in the child by not interrupting him when interested in his 'work.'

It is astonishing how tense a very young child can become. One knows the look of a baby or an animal asleep when really relaxed, and it seems a pity that the power of relaxing should so often be lost. To be able to relax at will both mind and body makes for health, and it is well known that muscles which relax thoroughly have the power of fully contracting. Thus from every point of view it is important that relaxing exercises should be taught."

"To sum up – Happiness, beauty and health are the rightful inheritance of children and all teaching should recognize this and try to lay the foundation of ordered freedom of mind and body."—*Abstracts of Current Public Health Literature.*

THE HEALTH PROMOTING PROPERTIES OF FRUIT

A diet of fruit has long been in use as a remedy for various maladies. The famous English surgeon, John Hunter, advocated the use of apples as a remedy for gout. The naturalist, Linnaeus, cured himself of sciatica by the free use of strawberries. A French medical writer relates the story of a regiment of soldiers that rapidly recovered from dysentery after establishing their camp in the vicinity of a vineyard full of ripe grapes. A similar incident occurred during the Civil War when a regiment of soldiers suffering from dysentery quickly after locating their camp adjacent to an orchard of ripe peaches.

Fruits are valuable for combating intestinal infections because of the acids present, citric, malic, and tartaric, and their small percentage of protein, as well as their laxative effects.

The avocado, one of the most remarkable of all fruits, is now produced in quantities in tropical South Florida and will in time become a universal favorite. Its high fat content, 0.5 to 25 per cent, gives it a great nutritive value. Two or three bananas, an avocado, and an apple, make a most delicious and wholesome meal.

Another tropical fruit, now grown in the tropical part of Florida, the papaya is well worth special consideration. This delicious tree melon contains a full assortment of vitamins, which is very unusual for a fruit. It is one-half as rich in vitamin A as is butter and this notwithstanding the fact that its water content is 90 per cent. of its weight.

The ripe papaya fruit has not digestive properties although claims of this sort have been made for it.

The mango and guava also flourish in the tropical climate of South Florida, and the cherimoya, the sapot, custard apple, sapodilla, sugar apple, and other exotic fruits, are every year becoming more abundant.—*Good Health.*

TEN COMMANDMENTS FOR THE FAT.

1. Do not try to reduce yourself to a skeleton; allow reasonable fatness to accord with the size of your bones.

2. Avoid the morning cold bath unless there is plenty of time and no ill-effects.

3. Wear wool to keep the blood pressure even. Your clothes should be warm and light.

4. Work from six to eight hours a day only, if you are over forty.

5. Eat all ripe fruits in season, obeying, however, any personal idosyncrasy.

6. Eat toast twice a day. It is digestible and strengthening. Avoid pastries, but plain cake is permissible.

7. Avoid violent games like lawn tennis if you are over forty, and walk three miles a day; if you are under forty, make the three miles five.

8. Be moderate in drinking whisky, light wines or dry champagne. Avoid ale, beer, and stout. Avoid also strong cigars and strong tobacco. They are harmful to fat men with weak hearts.

9. The more sleep you have, the better, so long as it is peaceful sleep. Dreams are bad; so try to go to bed without any worry or trouble on your mind.

10. Do not eat more than eight ounces of cooked red meat or white fish a day; and watch your cook. An expert cook may be the undertaker's best friend.—*The Medical Comrade.*

WHERE HEALTH IS COMPULSORY.

HOW EUROPE PROVIDES FOR YOUTHS' RECREATION.

Every boy and girl of 11 and upwards in the Vienna primary school has to make a monthly excursion to the forest with the class teacher, this "Wander Day" being part of the regular curriculum.

If the weather is unpropitious, or a day is missed for some other reasons, two or more such days are sometimes taken together for the older children, and they make a really adventurous trip to the hills, sleeping in barns or tourist shelters.

Gymnastics are compulsory in the schools, and in the municipal schools. Under the city council, there is a play afternoon weekly, which all children of the fourth class (about ten years old) and many older ones spend in the municipal baths learning to swim during several months of the year.

There are 32 public playgrounds for little children and 30 for older boys and girls in Vienna, making, with open spaces where games may be played under restrictions, about 90 playgrounds.

The Vienna City Council owns, and strictly controls, all the public playgrounds, and finds three thousand pounds or so for draining and laying out each.

The Federal Government of Austria also owns about 60 acres of public recreation grounds in Vienna. These are provided with showerbaths and dressing cabins.

The State assists sporting associations to keep up the grounds lent them by

the State and in return they must be left free for school children on certain days. The State has in the last five years erected 100 more gymnasia in Austria on the German system and provides foot balls and other sporting equipments whenever needed.

Water and ski sport has increased tenfold in the last ten years. In the mountains have already been erected several winter sport homes, at 6,000 feet altitude, near Vienna, where young men and women are taught ski-running in course of a fortnight. Parties of younger people are taken to these also.

Skating is also compulsory for children in Vienna, and the artificial ice-drinks which are frozen daily for six months of the year have to give the school children special facilities.

In Prague, with a population of much less than one million, the Sokol movement dominates all sport and recreation, The Sokols (Falcons) recruit their children at five and are State-supported in every possible way.

DRILL BY 10,000.

Every Sokol, man or woman, is a trained athlete, up to a point, but they do not take kindly to competitive sports as a rule. Rhythmic exercises in unison balancing, waving arms to music, and physical "jerks" and bends generally are practised in every village. Sometimes 10,000 men or 10,000 women perform these exercises together in the great Sokol Stadium at Prague, without a single blunder, in symmetrical formations. Now and then a woman faints and is carried out, or even a man, but the tempo is never interrupted, says the Vienna correspondent of the *Daily Mail*.

Swimming is compulsory, as in Vienna, but gymnastics are the national sport. Little children may be seen practising exercises together or singly in every village, even the typical little goose-girl, with a wary eye on her flock.—*The Burma Medical Times*.

THREAD-WORMS.

REPORTING on school medical work at Lincoln, Dr. D. C. Lamont, M.O.H., refers to the surprising number of children found suffering from thread-worms. He continues: "The variety of symptoms which cleared up when these parasites were eliminated from the system is equally amazing. Night-mares, habit spasms, almost choreic in their intensity, headaches, inexplicable bouts of vomiting, poor or erratic appetites, irritating coughs, foul breath —the symptoms are legion and protean and many of them seem utterly unlike "worms," but disappear when the worms are exterminated. Investigations have been made at the school clinic into treatment of these, and forty-two children have been under treatment with a simple bismuth carbonate mixture. In thirty-five cases there has been an absolute cure, mostly after twenty-four dessertspoonful doses given four times daily. Of the remaining seven cases, two are from homes where it is probable that the medicine is still reposing in the cupboard, two require courses of treatment at two-monthly intervals and the remaining three have shown no improvement after a fair trial. The results are therefore good, and as the medicine is easy to take, the investigation has proved quite satisfactory".—*Medical Officer*.

DEATHS FROM OLD AGE.

DR. J. E. WILSON (M.O.H., Mansfield) suggests in his annual report that in laying out Table III it would be well to make a special paragraph for deaths from purely old age or senility. "All our preventive work" he says, "is aimed at increasing the span of life. Ideally we develop feebleness of mind and body with the wearing out and atrophy of function of those cells which make up the tissues and organs of the body. With age their renewal at last slowly dwindles. But this is a healthy death to die and surely should be included in numerical records as being the most approved ending to a perfectly healthy life. Instead you will find these deaths hidden away under the very extensive grouping of paragraph 31, 'other defined diseases.' To me it seems illogical that such a death should be classified as a disease at all, and unfortunate consequently that it should be bound up in its classification with motley collection of the other genuinely defined diseases." Dr. Wilson concludes that deaths from senility should really occupy a high place in health records.—*Medical Officer.*

THE MAGIC OF SMILE

A smile has magic to take the edge off life's misery—not the "loud laugh that bespeaks the vacant mind" or the stupid grin that shows lack of understanding, but the smile of kindness that gleams like a little ray of inward sunshine.

There is philosophy to a smile and sometimes it takes a philosopher to smile. For no life, not even a fool's can be lived without sorrow, care and worry, but the cares that tempt us to frown today will be forgotton a year from now. To be truly the person we wish to be, we must be able to smile in the face of fortune's most outrageous slings. A smile is a sure sign that we have both ourselves and the situation well in hand and better still, our smile may be a benediction to the less strong who need help to face what is toward.—*Harry C. Phipps*, Dent, News.