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## Editorial

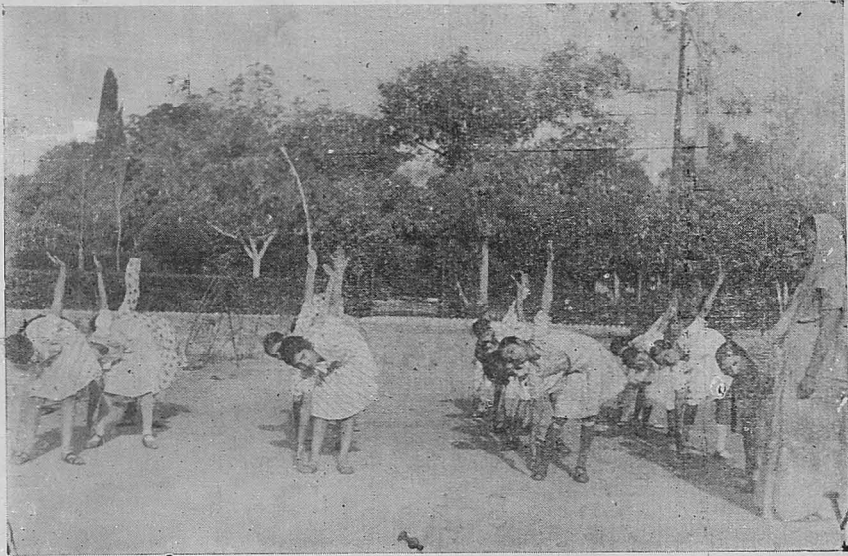
### The Schoolboy

**T**HE Schoolboy is the second stage in the mysterious drama of human life—the first stage being that of the infant, about whose care from the cradle to the school, or, to be more accurate, from the foetus in the mother's womb to the school, we discussed at some length in our Editorial of April '39. The problem of the school boy—"the whining school boy, with satchel in hand and shining morning face going unwillingly to school", as Shakespeare had described him to be—is a much more difficult and intricate problem than that of the infant, as, here three agencies are involved, *viz.* the parents, the teacher and the boy himself, whose mutual co-operation is necessary for his successful schooling, as against the parents alone, in the case of the infant. All

the civilized countries of the modern world are trying to tackle this problem each in their own way with varying degrees of success but in India, for diverse reasons which we need enter into here, the problem remains unattempted and unsolved as yet. In olden days, in our country, there were perhaps as many teachers as there were students and when once the student reached a Gurukul for study, the parent's responsibilities ceased and the entire schooling of the pupil or "Cheela", which included secular, physical, mental, moral and spiritual education with boarding and lodging amidst healthy and silent environments was entrusted to the guru until the student's full course of study was finished, which would be when he was about twenty-five years old. But those

halcyon days are long long past, never more to be revived. Some attempt, however, is being made in recent years in Western countries to separate the schoolboy as far as possible from the parents and put him under the sole charge of the teacher, the school undertaking his boarding and lodging

be a huge task, beyond the resources of our poor Provincial Governments. The hostel system, however, is being slowly developed in the High School and College courses, surmounting all these difficulties, but in the elementary and lower secondary schools, it has not even been thought of.



JULLUNDUR KANAYA MAHA VIDYALAYA.

This Vidyalyaya based on the ancient model of Gurukul was founded in the year 1886 on purely national lines with only 8 students. It has been a powerful instrument in removing the social evil of Purdah and has raised the marriageable standard of the girls. It has from its very beginning striven to impart a spirit of Brahmacharya, self-help, love for fellow-beings, sacrifice and patriotism to the students. It inculcates highest principles of simplicity and chastity. The object of the institution is to provide a sound education such as to befit them as good citizens and good house-wives and true mothers.

*Photo shows : Free arm exercise by the younger girl students.*

as well, in hostels specially constructed for the purpose. The hostel system is possible and is being satisfactorily worked even, in countries which are well-to-do and where religious and caste differences are practically nil. The tale is different in regard to our unhappy land. Here, there are different nationalities, different religions, castes, sects, and sub-sects which do not inter-mingle or inter-dine and to provide separate accommodation for all of them would

The natural sequel is that schoolboys are perforce to remain with their parents amidst squalor and dust, in congested and unhygienic localities, ill-fed and ill-nourished. No wonder that the majority of the schoolboys enter the schools like walking skeletons, with poor physiques and poorer brains.

Now, what is the state of affairs in Indian Schools? The boys are given instruction in a number of subjects and are asked to carry a big load home and deliver it back the next

morning as if it were of the nature of goods. The teacher has no concern whatever about the capacity of the boy, physical and mental, to carry that load nor does he enquire about the boy's health, heredity and environments.

Besides, the boy has his own curiosities and idiosyncrasies to be satisfied. His behaviour at home is always to question his parents on this topic and that and elicit answers. He always evinces a *thirst for knowledge* which is seldom satisfied wholly. His curiosity to learn and his disposition to ask questions and elicit answers pursue him even to the school but there he gets a snub and his enquiring mind is curbed by the teacher and in despair, he leaves it off. This attitude of the school children which seems to be universal, is better expressed in these lines :—

“I long to know a lot of things  
With curiosity I am cursed ;  
But teacher tells me that I must  
Complete my education first”

The first and foremost reform in our schools should, therefore, be to encourage pupils to ask questions of the teachers and get answers so that their minds may ponder over and begin investigations and experiments thereby broadening their mental capacity and outlook. “Good teaching means opening doors and keeping them open” and that ought to be the motto of the teacher.

The next reform that should be attempted in our schools is for the teachers to care for the health of the school-children. The teacher must know something of Hygiene and hygiene must be taught compulsorily in all the schools. Some part of the hour must be set apart daily for the physical examination of the students by the teacher, apart from any medical inspection that may have been done periodically by the school medi-

cal inspector, if one such has been appointed. It must be the duty of the class teacher to bring to the notice of the parents and the medical Inspector any physical defects and drawbacks he may have observed, with a view to their immediate rectification. Pupils who are mentally and physically defective should be weeded out and refused admission. If necessary, separate classes may be held for these defectives as otherwise, the physically fit and mentally sound students will have their progress hampered by such commingling.

Last but not the least, comes the question of nutrition of school-children. Malnutrition is responsible for many of the ills of school-children in India at the present day. This problem must be boldly and fearlessly tackled. Many pupils lack that essential meal—the milk, at home and wherever midday meal is served, milk should be the principal item. There is no good giving the boys a bolus of sauce and rice as is done in some of the schools and the Corporation of Madras have been well-advised in stopping the midday meals which they have been serving all along, on the score that they lack nutrition and trying to evolve a suitable, nutritious food formula. Here we would emphasize the need for giving the pupils sufficient quantity of milk in some form or other or in combination with other foods.

Thus, it will be seen that there should be a thorough overhauling and a new orientation of the policy and programme of instruction imparted in schools, if we should strive for a strong and healthy nation. Here, as we said at the beginning, the co-operation of the parent, the teacher and the taught is necessary, without which, it will not be possible to achieve this end.

# COMMON EYE DISEASES and THEIR FIRST-AID TREATMENT

**T**HIS short paper is mainly intended for Public Health workers and general public.

**Catarrhal Conjunctivitis.**—This is very common in South India. It comes before monsoon. It is highly infectious. Generally, children are affected. The eye becomes red, swollen and discharge comes out of the eyes. It is very troublesome.

The first thing to do is to segregate the patient to prevent others from being infected. The towels of the patient should be kept separate. Normal Saline wash (4 grs. of Saline to 1 oz. of water) well boiled and cooled is a useful irrigant. Mild percentage of Silver Nitrate drops, or Argyrol, Collargol drops or ointment is very useful.

If the condition persists for more than 2 or 3 days or if corneal ulcers develop, an Eye Doctor should be immediately called for.

**Granular Lids.**—This is responsible for a large number of blind people in India and South India in particular. It starts with grittiness of the eyes, watering, difficulty to see light. The patient complains of heaviness of the lids. If the disease is neglected cornea may be involved resulting in blindness. The disease is highly infectious. The disease is said to have been imported from Egypt and Palestine.

● **BY Dr. K. KRISHNA MURTY,**

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L. N. Hospital, Chodavaram, (S. India).*

The disease can be cured only at the early stage and hence the importance of consulting an Eye Doctor at the early stage. Silver Nitrate and its salts, copper and its salts are the remedies but they should be carefully administered.

**Phlyctenular Conjunctivitis.**—This condition is common in debilitated children who suffer from enlarged tonsils and adenoids. Phlyctenules (Nodules) appear on the conjunctiva and sometimes on the cornea. Redness of the eye, watering and difficulty in seeing light are the prominent symptoms. This is very troublesome.

Improving general health by giving cod-liver oil, tonics, fruits, and milk, and fresh air, and out-door exercises improve the condition a good deal. Adenoids and Tonsils should be removed.

Locally, frequent saline wash and calomel dusting prove very useful.

**Keratomalacia.**—This is a common cause of Blindness in South India. It is common in children. The disease is due to deficiency of vitamin A in food and hence it is common in ill-nourished and artificially fed children.



TOP — *Left* : Mother's infection being carried to the child through sari.

*Right* : Blind woman.

BELOW — *Left* : Same Towel used by two persons.

*Right* : Couching operation under a tree.

The cornea becomes soft and if neglected, the eye will be lost.

The best remedy is to nourish the child well by giving fresh cow's milk ghee, butter, cod-liver oil, etc.

**Interstitial Keratitis.**—This disease, affecting the cornea, is due to hereditary syphilis. The fault is not of the patient but of the parents which is most unfortunate. The disease starts between 5 and 20 years of age. Watering, redness of the eye, unable to see light, are the prominent signs. Gradually, the transparent cornea acquires ground glass appearance. The result is the eye sight will be lost. This disease is one of the common factors of blindness.

The disease can be prevented if the mother undergoes complete course of anti-syphilitic treatment during early days of pregnancy. If this is done early she will have a healthy child free from syphilitic poison.

As soon as the case is diagnosed it should be immediately entrusted to an Eye Doctor.

**Small-pox.**—This is a deadly disease. The cornea is generally affected and the eye is lost. This is one of the common factors of blindness.

The disease can be prevented if vaccination is done. In the words of Col. R. E. Wright of the Ophthalmic Hospital, Madras, "Good vaccination saves more eyes than all the Eye Hospitals of India put together".

Locally, the eye should be washed with Normal Saline and weak Silver Nitrate drops should be put. Vaseline Boric or Collargol ointment may be applied at bed time. If the cornea is

affected, the case should be immediately entrusted to an Eye Doctor.

**Ophthalmia Neonatorum (Babies' Sore Eyes).**—The disease generally appears between the 2nd and the 5th day after birth. This is a very dreadful disease and it is one of the chief factors of blindness. It is due to an infection from *Gonococcus* during birth.

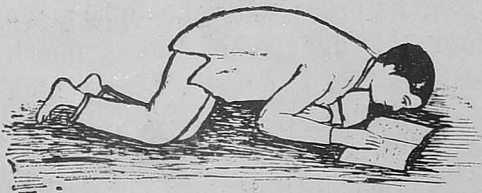
This can be prevented if scrupulous cleanliness is observed both by the midwife and the doctor and putting 1% solution of Silver Nitrate into baby's eyes. It is better always the mother should be thoroughly treated during early part of pregnancy.

If the cornea is affected with purulent discharge—frequent saline wash and putting antiseptic eye drops like Argyrol, Mercuro-chrome, etc., into the eyes should be done as first-aid till the Eye Doctor comes.

**Cataract.**—It is a degenerative process of the lens. The lens becomes opaque and thereby the vision is obstructed. The patient generally perceives only light after the maturity of the lens. The causative factor of cataract is still unknown. It may be due to deficiency in food or sepsis or glare. Cataract occurs in infants and children too. These are called infantile cataracts.

Extraction of the lens in Adult Cataract and Needling in Congenital Cataracts are the only resorts. Medicine will not be of much value. If the cataract is immature, Anti-Cataractous ointment of the South Indian Eye Laboratory, available at Messrs Sri Krishnan Bros., Madras, or at any Chemist, may be tried.





TOP — *Left* : Correct posture of Reading.  
*Right* : Improper way of Reading.  
*Centre* : Child blind from Small-pox.  
 BELOW — *Left* : Improper way of Reading.  
*Right* : Improper way of Reading.

**Glaucoma.**—This is a very serious eye trouble and is playing a great havoc in the province of Bengal. Thanks to the Almighty, it is not so prevalent in South India.

In the early stages, the patient sees rainbow-coloured rings around light. At this stage an Eye Doctor should be consulted. In the later stage, the patient gets occasional headaches, dimness or diminution of vision. Finally, the eye may be lost.

The disease is due to increase of tension in the eye ball. This can be averted in the early stages by putting Eserine or Pilocarpine drops or ointments. In the later stages, Trephining or Iridectomy should be done. This is the business of the specialist.

**Eye Accidents**—These are very common in Industrial areas and play a great part in the causation of blindness. But, these are very rare in South India. Protective goggles serve a useful purpose.

Early attention by an Eye Specialist can avert very many cases becoming blind. The eye becomes septic with terrible pain if it is not tackled early. The eye has to be removed in neglected cases to save the patient's life.

**Infected Tear Sac.**—Tear sac lies on the naso-lachrymal fossa. It is a sac of tears collected from the conjunctival sac through punctum and canals. The conjunctival sac empties its tears

into the nose through canal-like ducts.

The sac generally gets infected and plays a great part in all septic conditions of the eye. The sac should always be eliminated in such conditions.

Removal of the sac should be done in all suspected cases. This is a piece of advice to Health workers and doctors.

### **Injuries caused by Couchers.**—

From time immemorial, couchers exist in India and they play great havoc to the society. They travel from village to village doing cataract operations. With the help of a needle they push the matured lenses into the vitreous cavity without observing any asepsis. Immediately, the patient finds improvement as the obstruction is removed. But in 2 or 3 days, the lens, lying in the vitreous chamber acts like a foreign body and causes complete destruction of the eye ball. The terrible pain won't be relieved unless the eye ball is removed. The coucher after finishing his operations, removes himself bag and baggage to another remote village on the very next day. The poor eye patient has to suffer all the consequences for his ignorance.

Regular propaganda should be made about the dangers of these quack medicines and quacks. It is high time, a popular Government—like the present Government—should take active steps to stop quackery.



# Evils and Woes of Shaving

— By Y. S. SHARMA, M.D., (GOLD MEDALIST), —

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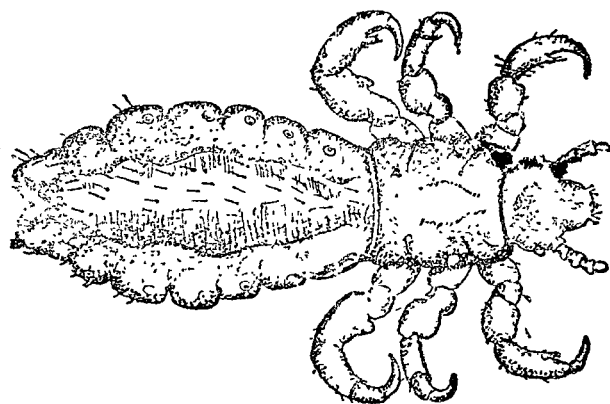
**F**ROM time immemorial, we have been hearing and studying by tradition that every creation of the Omnipotent God, the ruler of the universe, has its use. But in this twentieth century we are living a very artificial and unhealthy life, boasting that we are most modernly educated beings, but practically we are no better than our old intelligent and virtuous ancestors.

Hair is composed of horny cells and is formed from the epidermis. It lies in a deep pit called the hair follicle from the bottom of which it springs. It is a bad conductor of heat and electricity. What is the purpose of hair? It is supplied by Nature both as an ornament to the head and as a protection to the brain and eye sight from the effects of the sun and excessive heat in summer, of extreme cold in winter and of lightning in rainy season.

The eyebrows and eyelids are beautifully adapted for the defence of the organs of vision. The small hairs which grow in the apertures of the nostrils serve as guardians to the delicate membrane of the nose. Being situated in the entrance of the lungs they promote warmth to the air inhaled and are intended to afford protection from the injurious effects

of rapid variations of the atmosphere and give immunity from the disease of the respiratory system if breathing is practised through the nostrils and through the mouth.

Moustache and beard not only impart manly grace to the human face but also serve as a protection to all the glands in the mouth and throat



Lice harbour in uncombed and uncared-for hair and bring on Relapsing fever. Complete shaving of the head will clear the hair of its lice.

and the whole of the respiratory system.

"There can be no doubt" says Mr. Chandwick, "that the moustache is a natural respirator defending the lungs against the inhalation of dust and cold; it is a defence of the throat and face against the cold and it is equally in warm climate a protector of those parts against excessive heat". It would also be of service to labourers in all dusty trades and to travellers on dusty roads. Persons who rear moustaches and beard are less susceptible

to toothache than others who are void of them; and their teeth also are less apt to decay. Those who keep beard are immune from the attacks of mumps, tonsillitis, sore-throat, bronchitis and many other inflammatory diseases of the respiratory organs.

Every hair on the surface of the human body supplied by Nature is for the purpose of protecting that part on which it grows. It is also intended by her to drive out certain impurities from the body as it separates a large quantity of carbon and hydrogen from the system.

Hair decently cropped is a natural head dress. It is a crown bestowed by Nature and no artificial head-dress, however costly or beautiful, can replace its charms. Shaving the head and upper lip for the removal of hair is unnatural; it disfigures the human face and also deprives us of our appendages supplied by Nature with a purpose. Hair induces free perspiration and purifies the blood and also protects the parts on which it is allowed to grow. The hair on the head protects our brains. Our moustaches and beard protect our teeth, respiratory organs and cervical glands respectively. The grey colour of our hair in old age is Nature's mark, a provision for less absorption of heat by the hair and more absorption by the blood. It should not be coloured black artificially with dyes which are spurious and abundant on the market. Colouring rather reduces the grace than enhances it.

Considerably less attention is generally given to the care of hair than to the culture of the body. Every hair on the body has its root and its source of nourishment. Very close

under the surface, the hair follicle surrounding the root is connected with a sebaceous gland the fatty secretion of which keeps the scalp and the hair smooth. The treatment of the hair must, therefore, consist in the protection of these conditions, taking care that the natural secretion of the fat takes place as freely as the access of hair. Instead of this, just the contrary is done by the male as well as by the female sex. For the fact is that by constant use of all sorts of ointments, a derangement of nutrition is brought on by the stopping up of the hair follicles. Perfumed hair lotions, scents, soaps and numerous advertised hair oils are most harmful to the hair as the sharp ingredients which they contain have a detrimental effect on the hair bulb if administered for a long time.

Applying pure, unadulterated gingelly oil or cocoanut oil to the hair and scalp will keep the brain, scalp and hair cool, healthy and beautiful and prevent it from turning prematurely grey, falling out, etc. The best naturally bestowed remedy for cleaning the hair and scalp is the soap-nut and not the immensely irritating soaps, acids, etc.

It is erroneous to believe that the growth of the hair can be rendered more luxurious and stronger by frequent cutting and that frequent and early shaving beneficially influences the beard or even the hair; the growth of hair takes place deep under the skin at the end of the hair bulb, whence the conclusion can be drawn at once, that the much advertised remedies for producing a beard or for stimulating the growth of the hair are indeed a benefit to the

manufacturers, but not to the needy hair.

Shaving of pubic hair which develops above the external genital organs on the groin is most often done by the modern fashionable younger generation and is very injurious, detrimental, pernicious and objectionable to our precious health and are the baneful causes of impotency, sexual neurosis, and many skin diseases such as eczema, ringworm, barber's itch, etc. It is the cause of susceptibility of many sexual diseases.

The condition of irritation is indeed extremely torturing as it implies a constant impulse for onanistic gratification, sodomy, and many other artificial satisfaction of the sexual desire. By these unnatural impulses the patients—for here is a cause of illness—are reduced to a deplorable condition.

The principle of the care of the hair should be to keep the parts free from unnatural matters. The natural secretion of fat is nearly always sufficient to preserve the hair bed and the hair from dryness. The many wonderful cures against baldness, advertised so widely, depend, if they have any effect at all, only on the stimulation of the blood circulation which is thus paid for very dearly.

The custom of cutting the hair, so much practised by men is only of secondary importance to women with

the hair which inclines to split at the ends. It is certainly of advantage to cut the ends a little but beyond that cutting is to no purpose. One sees frequently that little girls have their hair cut short, as mothers believe that it will then grow longer and stronger. But this is not at all the case as the hair does not grow at the end but from the root.

Shaving of hairs from the part of the body which is very prevalent now-a-days is very detrimental and harmful to our health as well as purse, and also causes many incurable diseases, such as pulmonary, dental, throat and nasal disease. Shaving with barber's razor, etc., which is used by all, is the cause of contamination of various kinds of infectious diseases and the undermining of precious health. Now-a-days there is spurious advertisements in the market, about hair destroying soaps, oils, powders, ointments, etc. The after-effects of these are very serious, various incurable ailments spring therefrom: shaving of armpits results in boils, ringworms and various other diseases. Removing of hairs from the nose is the root cause of influenza, and many other lung troubles. How painful and awkward do we feel at the time of shaving these parts! Even then we are not able to give up this pernicious habit. In short, the best way of leading a healthy and wealthy life is to obey Nature and follow her cautiously.

# Aim of Physical Education

IN my last article,\* I had discussed the scheme of medical inspection of pupils, to insure their health. To-

day, I desire to take the readers further, to the next step of making the children *physically fit*, after an adequate medical examination.

In India today, the term "*physical education*" is a misnomer. The correct word should be "*physical training*". A fetish is made of the term and its significance. Physical education is "the building up of the bodies and personalities of the children by means of regulated exercises." Apart from this definition, with which all would generally agree, the aim of physical education, as expressed by the King Emperor's physician, is "not to produce a nation of trained athletes, but rather to ensure that by the proper training and development of body, men and women may be called upon to carry out their daily work to the utmost of their ability". There is too much loose talk and loose thinking about physical education and training, even by responsible officers in position.

Physical exercises can only benefit the healthy and not the sickly child. Therefore, a preliminary finding of the child's health, his capacity to exercises, and the amount of his energy to stand the strain, is a necessity. Physical exercises would not bring any real benefit to the

By

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individual, unless the elementary conditions of health can be maintained, namely, good food, perfect sleep, regular

exercises, rest and cleanliness.

There is no such thing as "health-giving" and "body-building" special foods. One must be careful about motivated advertised foodstuffs—"*Smoke Passing Show Cigarettes, enjoy good health*" or "*Bourn-vita keeps up your day-time energy*," etc., People should be taught how to feed more wisely, and to avoid bad food-habits, by the elimination of which only, could any one look forward to any real success in the physical training campaign. The problem of malnutrition (insufficient feeding) is more a question of *injudicious* feeding rather than an inadequate total supply of food.

\*The defects in the present scheme of physical education and training are:—

- (1) Lack of interest and enthusiasm among pupils for exercises;
- (2) Lack of interest among managers of Schools and Colleges, regarding exercises and health of pupils;
- (3) Deletion of gymnasium and its exercise value from the curricula;
- (4) Present day costly games and athletics;

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\* Extracted from my special article on 'Physical Education Policy and Training' in the Madras University Journal, Jan. 1939.

(5) Present day games and sports not suited to indigenous tastes, sentiments, and outlook on life ;

(6) Poor economic conditions of the pupils and students ;

(7) Slow degeneration of physical health and body-build of pupils ;

(8) Absence of adequate medical examination of pupil, to determine his state of health and physical defects.

conducive to organised and systematic work with benefit to the general population.

(12) Looked upon as jobs, and therefore, has lost its significance.

The principle—*mens sana in corpore sano*—has been absolutely forgotten to-day.

*Recommendations to rectify the above defects :—*

(1) A regular and systematic medi-



Physical Exercises for Girls.

(9) No gradual growth of physical training, from elementary schools to Colleges.

(10) No definite policy of the Government to bring physical training into the realm of body-politic of real education.

(11) Present day administration of physical training is defective and not

cal examination of all youths, with an aim to insure their health, with a follow-up policy.

(2) A national physical educational policy, suited to Indians must be chalked out.

(3) *The individual child* must be made the basis of the whole programme.

(4) Physical education and training must begin in the elementary schools and sojourn into the higher classes, in a gradual and systematic manner, till the physical training activities become merged into the community health and hygiene problem.

(5) Graded, regular, and systematic exercises to be daily given to all pupils and students, on the German model, after adequate medical examination.

(6) Provision of enough public playgrounds; the present playgrounds are hardly worth commenting.

(7) The following Acts should be enacted :—

(a) Indian Physical Training Act on the model of British Physical Training and Recreation Act, 1937 ;

(b) Public Health Act, to ensure the supply of pure food-stuffs to children ;

(c) Report of Weekly Census of mortality rate of the school-going pupils, to study the cause of infantile and maternal mortality, and take necessary steps. This should be a *special report*.

(8) A sufficiency of full-time paid physical instructors to carry out the physical training policy.

(9) Teachers to be trained in gymnasium, games and athletics, and other kinds of remedial exercises (Swedish drills), as *objective courses*.

(10) Military drill to be made compulsory for all College students.

(11) Propaganda to carry on "Physical Fitness Campaign", as

in England to-day and in other countries.

(12) Gymnasium to be introduced.

N. B. :—The British Board of Education has recommended that "at least 2—3 hours a week should be devoted to gymnasium, apart from games and sports in schools, to build physical health and increase physical fitness".

In England to-day, the achievement to physical fitness ideal is considered as good a virtue, as loyalty or honesty—"The aim of the present physical fitness campaign is "to create new leadership, to train men and women and to inspire the whole people with the ideal of physical fitness".

The Skeen Committee long ago recommended that "*a definite policy should be laid down to improve the physical fitness.*" Recently Sir John Anderson, His Majesty's Lord Privy Seal and Ex-Governor of Bengal, has opined that "the man-power of India should be mobilised for the good of the Nation".

It is through this national scheme of physical training, as part and supplement to the medical inspection scheme, with the objective to live healthily and be physically fit, that the life purpose to carry on his or her allotted vocation in any walk of life can be fulfilled; in other words, we would have *certainly* built a fitter Nation. It is thus the autonomous Governments would justify their existence and earn the gratitude of the younger generation. The **"Onward march of a Nation depends on the feet of little children."**



# OUR FOOD IN RELATION

## TO PUBLIC HEALTH

**T**HE public have begun to realise the importance of food in health and disease and the craze for vitamins in their daily diet has become quite commonplace.

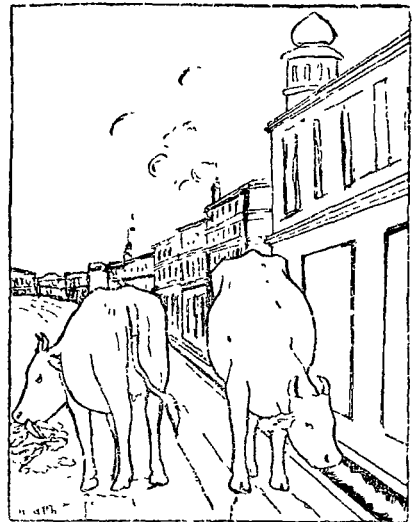
When the family physician prescribes vitamins from A to Z in some form, the patient is gratified. Food and nutrition have now become an integral part of medicine and to maintain the human machine in perfect running order, all the organs of the body have to be supplied with proper food, neat and clean and free from disease-producing organisms. The so called "protective foods" i.e., foods rich in vitamins which help to increase the resistance of the human system against disease on assimilation are: whole cereal grains or whole meal bread, milk and its by-products such as butter, cheese, butter-milk, curds etc., eggs, green leafy vegetables, root vegetables such as potatoes, beetroot, carrots etc., legumes such as peas, beans etc., fruits and meat. They should form the essential dietary of man to prevent disease. Faulty food causes, in addition to deficiency diseases, many ill-defined bowel complaints and vague symptoms of unknown origin. The importance of nutrition in medical science requires greater emphasis and McCarrison says that one should know more about health and nutrition and less about disease and drugs. So important is a well-balanced diet to man

HEALTH ]

**By Dr. W. F. JOSEPH, M.B., B.S.,**  
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that it forms the very basis of health.

Let us first consider about milk which is a food perfect in itself. From the public health stand point, one has to be very careful in using milk. The bacilli of enteric fever is often conveyed through milk and unless the



Cows drinking drain water and fed on leaves and other impurities from dust-bins are liable to spread infection through their milk.

milk that we use is properly sterilised, one is liable to fall victim to this dreaded disease. Boiling is one of the best and easiest ways of sterilising milk, but it diminishes its food value to a certain extent. Pasteurisation of milk is another method of

sterilisation, and so also the ultra-violet radiation. The last process improves the food value of milk without diminishing the nutritive values already present therein. It increases the vitamin D content of milk and is very good for rickets and dental caries. The milk thus exposed to ultra-violet rays is called 'irradiated milk'.

Bread is another medium through which typhoid and paratyphoid fevers are conveyed to the public. Experiments made with bread in many cases showed that the micro-organisms of the said disease were capable of survival on bread crusts for about a week. During epidemics one should therefore be careful in getting bread from bakeries and this probability of infection must not be lost sight of.

Another food stuff that is capable of transmitting disease is the shell-fish. This carries the infection of enteric fever due to sewage contamination. We do get practical cases of this type occasionally and many more cases of gastro-intestinal disturbances. Whether shell-fish transmit disease-producing organisms or not, for personal safety, one should carefully avoid oysters and mussels etc., collected from unclean beds.

To get shell-fish from uncontaminated areas is possible, but to prove it with guaranteed safety and keep for sale to the public is so difficult that it is better either for the individual to avoid such dangerous food or for Health authorities to ban it as dirty and dangerous for human consumption.

Food stuffs freely exposed to flies and dust by many irresponsible vendors is another potent source of infection and very commonly met with in our country. Enteric, dysentery, diarrhoea etc., are the chief diseases that the flies are capable of transmitting from one person to another. Flies feed on the faecal matter of an infected person and while sitting on our food stuffs, feed on them and defecate spontaneously, thus depositing virulent organisms causing disease in those who use such articles of food. Many innocent children unaware, fall victims to diseases on account of such criminal negligence on the part of vendors. This fact is increasingly recognised by the public in the present day, but needs further emphasis, so that every individual on the face of the earth is informed of this fundamental truth so that he may totally avoid this source of infection in future.

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### Books May Transmit Disease

Although communicable diseases are transmitted mainly by persons rather than by inanimate objects, books that have been handled recently by patients suffering from smallpox, scarlet fever, or diphtheria may transmit such infections to susceptible persons, *The Journal of the American Medical Association* said in a recent issue.—O. W.

# Ankylostoma Duodenale (Hook-Worm)

By Dr. JOSEPH S. KHAN, L.C.P. & S., (Bom.),

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**Distribution.**—It is found in human beings in all the tropical and sub-tropical countries, and generally it is considered that in India 70-75 per cent of people are infected with Hook Worm. The prevalence of infection varies in different localities and it is very widespread specially in Assam, Bengal, Madras, Bombay and the Central Provinces. Heavy rainfall is a favourable condition for Hook Worm. In my own investigations of 500 stools last year, I found 75 per cent of my patients suffering from Hook Worm. It is chiefly an affection of Agricultural classes.

Hook Worm is found in the small intestines of man. They bite the inner layer (Mucosa), of the intestinal tract by catching a large mucosa, in their mouth, and suck blood, breaking capillaries and setting up necrosis in different parts.

These worms live on human blood and there is bleeding from the wounds and consequently the stools are coloured dark. A matured female hook worm lays 9000 eggs a day! The number of eggs passed in the stool of an infected person has been estimated to be over 4000,000! And as many as 4,000 worms have been

found in a single patient! The usual number varies from 50 to 125 per patient.

**Cycle of Infection.**—The man gets a ground itch. (An itching sore on



Fig. 1.

Fig. 1. Hookworm in the person's bowels, taking hold of the lining with its mouth and hanging on without molestation.



Fig. 2.

Fig. 2. Persons affected with hookworm disease develop strange tastes and eat such indigestible things as lime, raw rice, dirt, charcoal, hair and feathers.

the foot). This itching is produced by the burrowing of the skin by larvae of the hook-worm, usually found on the sole of the feet, toes, or webs between the toes. The larvae enter into the skin and at this site a papule is formed, and becomes infected with other germs, and finally develops into a sore. These sores last for a few

days. The larvae then enter into the heart, and then into the lungs, and here the larvæ are caught in the small capillaries and from there they travel into other blood vessels and then into Trachea (Windpipe). From there into the Pharynx (Gullet), and may be swallowed back into the stomach. In the stomach the larvæ undergo certain changes and live in the upper part of the intestines namely duodenum and jejunum; and passed in the stools of the infected persons and the same cycle begins again.

**Symptoms.**—Indigestion and Dyspepsia are common symptoms which an infected person complains of; and are believed to be caused by the toxins (poison), produced by these bacilli. There is also occasional dull pain in the abdomen. There is loss of blood since the parasites live on the blood of the host, and consequently anæmia is generally pronounced. In my short experience I find that in almost all cases the patient comes to the clinic with the chief complaint that he feels very lazy, and hence I agree with some authorities who call this disease as "Lazy Disease". This laziness causes a widespread degeneration in the community and is one of the diseases that cause economic loss to the country. The sense of taste is perverted in many cases. The patient looks weak, of a retarded growth, and show a pallor with lack of energy. In the chronic cases severe anæmia and dropsy with palpitation and shortness of breath form characteristic symptoms.

**Treatment** —1. *Prophylactic Treatment* :—The fact that the cause of the disease is known, and the character-

istics of the worms studied and understood, should make prevention an easy matter; but in practice it is one of the most difficult diseases to conquer, owing to its extensive prevalence, and the enormous reproductive power of the worms. The disease is the direct result of careless and filthy habits :—

(a) The adult worms should be destroyed, and that would mean the extensive treatment of infected persons. Periodic examination of the stools of infected persons should continue after treatment. In boarding houses, mills, factories, hospitals, etc. the examination of the stool should come under 'routine examinations'.

(b) Prevention of soil infection :—It is a common practice that in villages, people pass stools in or in the vicinity of their dwelling, banks of rivers and tanks, open land, and almost anywhere, and here the larvæ grow rapidly and infect persons, who walk about doing their daily business with bare feet. Such a practice should be rigidly interdicted, and I am confident that the various rural reconstruction schemes, and public health authorities will take up this important project some day.

(c) Sanitary education of the public contributes a lot towards the eradication of almost any disease. With compulsory primary education, the rural diseases and their prevention should be taught to the students. Hookworm is a disease mainly due to the ignorance and uncleanly habits of the people and hence the importance of education is very desirable. "Law is not the instrument best fitted to compel a man to be clean and live up

to the rules of hygiene", (Ghosh). They should not drink dirty tank water nor eat unwashed fruits. Wearing of shoes or stockings is unknown in the villages, and a good substitute is high wooden sandals, as a means of reducing and preventing infection : this should be impressed on the people.

2. *Medical Treatment* :—(a) *Thymol* :—In spite of the fact that so many other modern drugs have come out in the market, in my experience Thymol stands still as one of the paramount drugs. I prescribe as follows :

℞ Thymol                   ... grs. xxx.  
Soda bicarb   ... grs. x.  
Mft.

Two such doses every one hour, followed by one ounce of Magsulph. Some authorities say that 90 per cent of the worms are removed from the intestines by this treatment. I give three such courses at an interval of one week and examine stools again

and repeat the treatment if necessary.

(b) *Carbon Tetrachloride* :—I have used this in a few cases with fairly good results. One drachm in the morning on empty stomach followed by an ounce of Magsulph. It should not be given to alcoholics. It is better to give some sugar or Glucose-D to the patient to avoid central necrosis of the liver. Avoid fats and oils during treatment. Combined treatment with oil chenopodium may be of distinct advantage in heavy infections.

(c) *Oil Chenopodium* :—The toxicity of this drug is great, and so it should be given in three divided doses of m. v each in gelatin capsules followed by Magsulph one ounce. I find that in rural practice, the mixture of oil chenopodium with Magsulph solution and given as one dose serves alright and children may be given m. l for each year of age on sugar, followed by Magsulph.

## PHYSICAL CULTURE FOR VIBRANT HEALTH

PHYSICAL culture, which is called an asset or gift of God, is the most essential thing for us, if we want to lead a happy life. *It is the same art that makes a man perfectly healthy, strong and muscular. And it is the same thing that enables a man to become prosperous in his future life, both physically and morally.* Physical culture is not a thing which is confined to a few, but it is meant for all. So, leading a life of happiness entirely depends upon physical culture. Physical exercise consists of two different kinds of

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movements of body. The first, I may say, goes with completely perfect physical movements of body for building vibrant health and endurance.

*Physical culture, which gives strength, endurance and robust physique, mainly comprises of weight lifting, boxing, wrestling and bar exercises, etc. These are the best possible exercises which can build good bodies with vitality*

and endurance, provided we adopt them by practical means and that too combined with good nourishment. *Next to this is the influence of climate, which plays an important part in developing the body.* As regards the climatic condition, I may say, it should be neither too cold nor too hot. The climate of England is quite different from that of India. The English people take exercise throughout the year. But in India it is quite the contrary. *That is the difference why an Indian cannot become as strong as an Englishman.* As regards food, it should be such that it could put more strength and endurance in the body. The drink should be such that it could not cause cold. Next to this comes the observance of limit in everything. "*Too much of anything is always dangerous*", thus goes a maxim. *So we must be moderate both in exercising the body and in filling into our body.*

Apart from this, rest plays an important part. Completely full rest and repose is essential for a physical culturist to make him refreshed. *One must have at least seven hours of sleep during the night.* Sleeping during the day and waking during the night is always dangerous and bad to health. And it is very bad to sleep at once after meals, nor is it commendable to take some exercise. *Sleeping on the left side is better.* Calls of nature should be attended to daily in the morning. *The stomach must be kept clean. It should never be allowed to constipate. Physique must be taken once in six months.* Whenever the

body gets pain it is better to have it massaged well with oil before bath. *Commonly cold and clay baths are recommended.*

The development, growth and strength of the body depend upon the method of exercise practised by the person. As an example a wrestler will have a huge body, which is quite big in comparison with a weight lifter's body. *So also a player on the bar will have a supple body, which is nothing in comparison with the strength of the lifter.* Consequently, there will be difference in performance also. *Here lies the difference as to why a man is famous in a particular performance.* So it is evident that the body will take up the form and development of the training given just as habit becomes the second nature.

Now coming to the propagation of this art, I may say, it is not widely known in India. *In England even women think it to be their duty and they take exercise.* But here it is quite contrary. If we think of the feats performed by the late strongmen, who have thrilled the physical culture world, then we are apt to say, *that they are born strong, and that what all they did, was due to inborn strength.* But really it is not like that. *They worked very hard and they became very strong.* So from this it is clear that physical culture is meant for all and that physical culture practised regularly combined with good nourishment will make one strong, physically and mentally too.



# HEAT STROKE or HEAT PROSTRATION

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## (SUN STROKE)

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**Heat Stroke** or Thermic fever, Sirliaſis or Diathermia (undue retention of heat within the body).

*Symptoms* :— Rapid full pulse, Cheyne-Stokes respiration, hot dry skin, high temperature, convulsions and unconsciousness.

**Heat Prostration** :—Low temperature, pale clammy skin, dilated pupils, weak pulse, weak heart, normal and abnormal temperature with congestion of brain with meninges.

*Pre-disposing factors* :— Muscular fatigue, diseased condition of heart and lungs. Excessive indulgence in sexualism and alcoholism, dietary indiscretions, overcrowding, heavy clothing especially black ones, insufficiency of water drinking, auto-intoxication and acidosis of blood (proved by the usefulness of Sodabicarb. injections.)

*Causes* :—High atmospheric temperature, high relative humidity, lack of evaporation from the skin whether from excessive humidity or from lack of circulation of the surrounding air, sweating suppressed from 1-48 hours before the attack. Sweating inhibition—Local in sweat glands and not central—hence no diaphoretics.

*Treatment* :—Two broad points.

I. Reduction of Temperature.

II. Elimination of Toxins.

I. Reduction of Temperature.—by ice packs or ice baths or Iced Enemeta till the rectal temperature comes down

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about 103° F. Then the patient should be removed from bath and covered with blankets. If no ice is available, a sheet wetted in dilute alcohol plus current of fresh air may be tried.

II. Elimination of toxins.—(a) By intravenous injection of normal salines and in Cyanosis (b) Venesections in Asphyxia (c) Artificial respiration.

In Paralytic with acidosis—A litre of 1 or 2% solution of soda. The use of Alkaline enemeta gives good results. (a litre of solution containing 2% of sodium chloride and 2% of soda carbonate.

No coal tar preparations and diaphoretics.

**Preventive Treatment.**—(1) Take baths daily and keep the body clean to promote the good action of the sweat glands.

(2) Drink plenty of water (Lemonade, soda, tamarind.)

(3) Avoid tight heavy and black clothing, heat and hard work, especially in the sun. Clothing should be light and should permit a free circulation of air to assist evaporation. Preferably green coloured for neck and

spine. The green being covered by white material.

(4) Protection of head and nape of the neck by light well ventilated helmet or turban or by green Banana leaves.

(5) Avoid excess of sexualities and alcohol, fatigue and heat, and pungent articles of diet.

(6) Take plenty of onions, whey, water, tamarind and raw mangoes squps, etc.

### **Treatment of Complications.**—

(1) *High Temperature* :—Ice cold packs and sponging with iced rose water 10 oz. and 2 oz. of Acetic Acid or with iced goat's milk.

(2) *Delirium* :—Sprinkling of ice-rose and kewra water and bags of ice to the head.

(3) *Unconsciousness* :—Smelling of camphor and sandal mixed in with Rose and Kewra water (preferably cold or iced) or ice water. Bags or cold packs to head soaked in Aqua Rosae 5 ozs., and Acetic Acid 1 oz., cooled by ice.

(4) *Excessive Thirst* :—Give water melon juice 5 ozs. and Ark Kewra 2ozs. Tamarind juice, lemon juice, with Khas water.

In non-febrile heat prostrations, the treatment should be entirely stimulating and eliminating, e.g., rubbing of limbs, hot water bottles, injection of strychnine or adrenalin, saline intravenously or rectally.

**Dietetic Treatment** :— *Vitamins* :  
A++++ Egg, Ghee, Cod liver oil ;  
Fats; whole milk; B+++; C++++;  
D++; E++;

*Tastes* :—(1) Sugars — Glucose ;  
Syrups of lemon ; Orange ; Tamarind ;  
Lotus and Nilphur.

(2) Acids :—Tamarind ; Lemon ;  
Anwala.

(3) Salines :—Soda and Saline  
water.

(4) Pungents ; No.

(5) Bitters.

(9) Nauseants and others.

*Cereals* :—(when acute stage has passed) Suji ; Khichri ; Dalia ; Rice ;  
Barley ; Jawar.

*Legumens* :—Moong.

*Vegetables* :—(1) Roots and tubers:  
Onions; Dheensa (roots of lotus, turnip  
reddish artichoke), beet-roots.

(2) Leafy vegetables :—Cholai ;  
Kuffa ; Podina ; Bathua ; Dhania ,  
spinach, celery ; lettuce ; water cress ;  
Turnip Tops.

(3) Beans, peas and others :—  
Kairs ; Imli ; Kakri ; Kairi ; Tindi ;  
Paitha ; Gondai ; Tomatoes ; chutnies  
of raw mangoes ; Mult ; Tamarind ;  
onion and prunes.

*Fruits* :—Water melon ; musk melon ;  
cucumber ; oranges ; pomegranates ;  
apples ; leeches ; phalsa ; prunes.

*Fats* :—Sparingly!

*Beverages of Drinks* :—Plenty of  
water ; milk ; whey ; soda ; lemonade ;  
syrups of lotus ; Nilopher ; Khus ,  
orange ; tamarind ; Onnab or soup  
made of raw or roasted mango.

*Meat* :—Khargosh ; venision.

*Miscellaneous* :—Preserves of ap-  
ples ; Bee ; Paitua ; Avla.

*Chutneys* :—Kairies with Podina.

**Accessory Therapeutics.**—(1) Fresh  
cold open air (if possible from Khas  
Punkhas).

(2) Fresh cold drinks and baths  
(shower). (a) Drinks e.g., Lemon,  
Soda, Tamarind, Lotus, Rose, Kewra,

Khus. (b) Baths. Daily to keep the body clean to promote good action of sweat glands.

(3) Cool place in good current of fresh air lying on lotus or plantain leaves and lotus flower.

(4) Moonlight.

(5) Cropping of hairs.

(5) Removal of tight clothing.

(7) Avoidance of constipation. Give confection T a m a r i n d :—Tamarind 3¼ oz. Prunes (Aloo Bukhara 5). Boil and strain and add 5 tolas=2 oz. of pure confection Rosae.

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## ● Topics from Medical and Health Periodicals ●

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### Public Health Service Announces Malaria Test

A SIMPLE new blood test aiding in recognizing malaria has just been announced by the U. S. Public Health Service. The new test was devised by H. O. Proske, chief medical technician, and Dr. Robert B. Watson, senior malariologist of the Tennessee Valley Authority.

The test is based on the fact that a certain fraction of the proteins in blood, the euglobulins, is increased in most cases of malaria, and this increase can be shown by a chemical colour test.

Malaria cannot always be diagnosed from the symptoms, it is explained, because many of these are similar to those of other diseases. Clinching the diagnosis by searching for the malaria germs in the blood is also sometimes difficult, especially if the number of these germs in the blood is small. The new test, which is easy to perform in any clinical laboratory, gave 97.4 per cent positive reactions in a series of known malaria cases as compared with 81.9 per cent found by microscopic examination.—*Science News-Letter*.

### Rat Extermination

LIVE rat catching by skilled workers is still considered to be the most suitable and hygienic method of extermination for use in the City of London, and for this reason is recommended in the majority of instances by the public health department. Pointing out that rat-proofing is suggested in every case of rat infestation, Dr. C. F. White, M.O.H., writes: "The value of this method of repression cannot be overemphasised, particularly where, as in an area like the City, the chief problem is provided by the black rat. The guarding and removal of waste food, water, and nesting facilities, which must form part of any rat-proofing campaign, is obviously the duty of occupiers of property, and its introduction is continually recommended and demanded by the officers of this department. Structural rat-proofing, which mainly entails the blocking of internal pipe runs, and the repair of defective door, windows, and roofs, cannot reasonably be asked of occupiers or legally demanded of owners. For this reason this particular aspect of repression is not

receiving the attention it should." During last year one firm of rat-catchers bagged as many as 19,561 rats in the city, while one of the big catering firms caught nearly 5,000 in their shops.—*The Medical Officer*.

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### The Modern Girl

As one critic of the modern girl said, "She demands to be treated as an equal, she expects to be treated as a duchess and she behaves like a washerwoman." Theobald goes on to say :

"She copies the coolie woman of the Chinese bazaar in plucking her eyebrows, the Siamese peasant in bobbing her hair, the Arab in letting her nails grow like claws, and painting them a hideous red, the courtesan in painting all visible parts of her anatomy, and in painting and powdering herself in public betrays incredible vulgarity. She is so restless that she cannot sit peacefully at home; she cannot eat her meals without smoking, and is unhappy unless she is at the dance or cinema.—*Geoffrey Theobald* in "*Some Effects of Emancipation on the Health of Women*," in "*J. State Med.*," June, 1936.

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### Ganges Water—Its Therapeutic Value

THE keeping quality of the water of the Ganges has always been a mystery to the scientist. Laboratory tests have shown that when cholera vibrios are introduced into the water of the Ganges, they die out in twenty four hours, while they multiply enormously in other waters. When Ganges water is boiled, the loss of the vibriocidal

power is clearly noticed. No wonder that in Ayurveda, the water of Ganges is prescribed as a cure for most human ills. Ordinarily one experiences a feeling of freshness and vigour when a bath is taken in the Ganges. This is so at all times of the year. In the case of other rivers such a feeling is experienced only in certain seasons. It is well known that the source of the Ganges is in the Himalayas, the highest mountain range in the world, where thunder and lightning prevail throughout the year. The very atmosphere at the height at which the Ganges takes its rise is always ionised and the water in the river is subject to a continuous treatment of Electric current available from nature. Further the passage of the river through miles of mineral rocks possessing deposits of valuable ores is also responsible for the transformation, as the rocks form effective magnets with nature's energy stored in them. It is no wonder that the ancient seers and saints of India intuitively perceived the high therapeutic value of the Ganges water and prescribed it for human ills. Warmed by the rays of the sun during the day, cooled by the rays of the moon during the night, the limpid and pure water of the Ganges during the Hindu month of Kartik in particular is said to be *par excellence*. Tradition has it that the sage Agasthya blessed the water of the Ganges flowing in the month of Kartikai and owing to his grace it is valued, as heaven's nectar, *Hamrodaka*. The great efficacy of the sacred water of the holy Ganges is thus due to the seasonal virtues of the month of Kartik. During this month there are heavy downpours of rain from the cloud and nature charges the rain drops with electric currents which transform the water which in its turn produces highly beneficial results.—*Dharmarajya*.

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