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Health

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Editorial

Compulsory Health Education in Schools and Colleges

DURING the Sixth Education Week celebration recently held in the City of Madras, Rao Bahadur Dr. T. S. Tirumurthi, B.A., M.B. & C.M., D.T.M. & H. Professor of Pathology, Madras Medical College, delivered an interesting lecture on the 9th October 1936 at Sir M. Ct. Muthia Chettiar's High School, Purasawalkam, under the caption, "The importance of the teaching of Hygiene in Schools and Colleges". There was no place for Hygiene in the school curriculum, even in the civilised countries of the West till about two decades ago, when the Health Organization of the League of Nations stressed the need for the teaching of Hygiene in schools and for the medical inspection of school children. The European countries have since made rapid strides in this **HEALTH]**

direction, only poor India is lagging behind in this as in every other respect. Mr. L. N. Sahu, M.A., Member, Servants of Indian Society, Orissa, in a paper submitted to the World Federation of Education Associations held at Denver, Colorado, U. S. A. between 27th July and 1st August, 1931, put the plight of India in a nutshell in the following three concluding paragraphs:—

(1) "The Government' has not followed a very active, sympathetic and correct system of education in this country. It has established schools mostly to secure clerks knowing English for its offices and has never really cared for the better manhood of the country".

(2) "As a result of this, the Government has neither cared to

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take active non-official help in the matter of education and health propaganda for the well-being of students, nor has it done so through its own agency of paid teachers".

(3) "It has been criminally negligent of the health of the future citizens of this country, by failing to do what could have been done for the physical welfare of the student and has thus helped to produce imbeciles and physical wrecks".

With regard to the curriculum of studies, he observed :—" This leads one to criticize the whole syllabus up to and inclusive of the Matriculation standard or for the matter of that, up to the highest education, imparted in our Universities. *There is no place for hygiene in the syllabus prepared for the students at any stage.* The guardians are not educated in these matters. Most of the teachers are completely ignorant or at least too indolent to observe hygienic laws. The Department of education carries on a 'routine work'".

No more scathing indictment of the educational policy of the Government of India and of the various provincial Governments, we can conceive of and the tragedy of the whole thing is that education is and has been a transferred subject under the care of Ministers chosen from the majority party in the Legislative Councils, since 1921. Under such distressing circumstances, that the organizers of the Education Week should have thought fit to arrange for a lecture on "The Importance of the teaching of Hygiene in-Schools and Colleges" to the High School students, augurs well of the future of education in this Province.

The choice of the lecturer happily fell on Dr. T. S. Tirumurthi, than

whom no better exponent of the hygienic laws of the East and the West, ancient as well as modern, can be found. He rightly commenced his lecture with an appeal to the Educational authorities to shake off their age-long lethargy and apathy and rise equal to the occasion and see that hygiene is given its due place in the school curricula and the courses of study in colleges, in future. According to Dr. Tirumurthi, 'the aim of education is the harmonious evolution of all faculties, physical, mental moral and spiritual'. 'Without physical health,' he says, 'the other faculties cannot be developed'. Education in this country has come to be known 'as soul-less', which explains the woeful physical, mental, moral and spiritual deterioration of the student population in India as a whole.

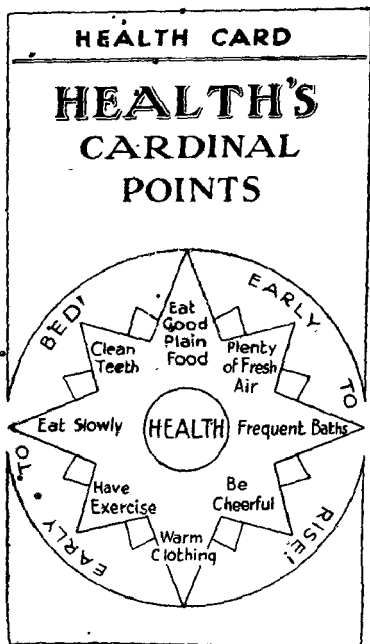
With regard to the age at which true education should start, Dr. Tirumurthi is of opinion that it should start with the infant and the toddler. Failing this, a beginning in this direction should be made at least with the school-going age. In fact, in India, even in the middle ages, the primary school children, were given their first lessons, on God, morals, health and economics. In the Tamil Nad, Ovvai's aphorisms were prescribed as textbooks from the Ist to the IV Classes till a quarter of a century ago. If one goes through these aphorisms, one will be struck with the dynamic force and authority which lie behind them. 'Your parents are your Gods whom you first see'. 'To go and worship the God in the temple is very good.' In these two pithy sentences in Tamil, of which the above are English versions, the pupils are made to understand and realise the personal Gods in

their parents, on whom devolves the duty of shaping their future destinies and the impersonal God in the temple, about whom, no more can be said at this age. These are specimen lessons on spiritualism. Of morals, there are

that is now given to the middle-class educated unemployed); (3) If you seek the good things (of the world), seek the plough; (4) Amass wealth by doing business even beyond the seas. Thus, the text books for the primary classes especially, must be in the form of simple 'Do's and Dont's and not as at present, in the form of stories, containing good and bad things for a moral to be drawn by the pupils. In the latter case, more often than not, the bad things impress the child most and the good things are overlooked and left out of consideration.

The responsibility of the teacher does not end with the mere imparting of the knowledge of the three 'R's. Health Education is his primary duty. He must see that the pupils entrusted to his care act up to the instructions given. The teacher must set an example to students by being himself clean and healthy. As Dr. Turner, Chairman, Health Section, World Federation of Education Associations has observed:—"In the elementary schools, health education should be in charge of the teacher under the sympathetic guidance of an efficient advisor, or supervisor of health education, equipped with special and adequate professional training for this complex task".

Dr. Tirumurthi has not overlooked the importance of teaching mental, marriage and sexual hygiene to college students. This is a matter of vital importance to the students, parents and educationists. He has also touched the problem of 'unemployment' and its relation to Health, and a healthy unemployed person can not only stand the mental strain but also has a better chance of success in the struggle for existence. The theory of the 'survival



quite a legion and every student of Ovvai's Tamil works must know them. In regard to health matters, let us quote some samples: (1) Rise up early in the morning; (2) Take oil-bath every Saturday; (3) Never give room to diseases; (4) Never have a desire to overeat; (5) Eat at proper time, even if what is served includes milk; (6) Lie down and sleep wherever you find it congenial to do so. Lastly, in respect of economics, we have such counsels as, (1) Cultivate paddy; (2) Till the land and live' (the exhortation

of the fittest' holds good in these cases.

We are at one with Dr. Tirumurthi in recommending to the Educational authorities that hygiene should be made a compulsory subject for study

in schools and colleges and that in the colleges, anatomy, physiology and sex hygiene should also be taught. Elsewhere for the benefit of our readers, we publish extracts from his lecture.

Physical Fitness

—By Khagendranath Chatterjee,—

M.B., Lt. I.M.S. (Retd.), Chinsura, Hooghly,

(Contd. from page 104 of 'Health', Vol. XIV, No. 6, 1936.)

The Nose

THE nose is an essential organ of the body, as it is mainly through it, that we breathe the air that keeps us alive. It is also by its means that we can perceive different kinds of smell. It also regulates the mechanism of voice; nasal defects give rise to alteration of voice and impart a 'nasal tone' to it. Though the act of breathing can be performed by the mouth, mouth-breathing is harmful, as the lungs are liable to catch infection easily, thereby. The nose is the principal and natural route for breathing. It should be borne in mind, that for the proper development of the chest and for keeping it in a healthy condition, the passage through which air gets natural entrance should be kept in a healthy state. How various diseases of the throat and lungs arise from the faulty condition of the nose will be described later on. As the nose has got communications with other organs such as the eyes, and the ears, affections of the nose may also affect them. People should, therefore, possess some general knowledge of the structure and functions of the nose, so that they may be able to guard

themselves from the invasion of diseases of the throat and surrounding organs as well as of the lungs, which are liable to be attacked through, the nose.

The nose is a very prominent organ of the face, and if well formed constitutes its beauty. It is situated centrally beginning from the lower border of the forehead, in the middle line, just between the sockets of the eyes, and is here known as the "root of the nose." It is naturally elevated and triangular in shape with the base downwards. The sharp upper border is known as the "Bridge" which terminates at the partition between the two orifices called the nostrils, through which air passes in and out, during the act of breathing. The nostrils are surrounded on each side by folds of skin which are called the "Alae" of the nose. The upper part of the nose, near its root, is fixed and bony, whilst the raised border called the bridge is mostly made of a substance called cartilage, which is soft and movable. The ears are also composed of the same substance. The interior of the nose consists of two cavities known as the nasal

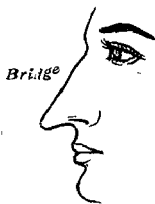
passages, separated from each other by a partition wall in the middle line called the septum which is composed partly of bone and partly of cartilage. The cavities are entirely lined by a moist and thin lining called the mucous membrane, inflammation of which gives rise to secretions of the nose, called the nasal catarrh. The nasal cavities are narrow, but are wide in front and behind. They are spacious, however, in the middle part, but are not plain and smooth. There are projections from the outer side of rounded portions of delicate bones, covered with mucous linings, called the 'turbinated bones'. They hang from above downwards one after another, thus making the passage zig-zag, a provision made by Nature, to obstruct the free passage of a foreign body into the throat and thus into the lungs, which would otherwise happen if the passages were wide and plain. Nature has also guarded the nostrils by means of stout bristles which grow at the very entrance of the nose, and prevent any foreign matter going inside. The contents of the nasal cavities are only visible after dilating the nostrils with an instrument.

The nasal cavities communicate with the external air by means of the nostrils, which are known as 'the anterior nares', and with the throat behind, where it is called 'the posterior nares', (or nasopharynx). The nose also communicates with the eyes, the ears, and the hollow spaces, (air spaces) in the bones of the forehead, along the line of the eyebrows, and the bones of the face. This is known by the fact that when a man gets common cold, he gets secretion from his nose, his eyes water, he feels heaviness in the head, blocking of his ears

etc. Medicines applied to the eyes may appear at the nose, and from the nose to the throat.

We shall now discuss the common defects and ailments of the nose, and their remote effects in the neighbouring organs by extension of mischief.

It has already been stated, that the bridge of a nose should be sharp and raised. An unusually flat or depressed nose is found in syphilitic children,



Sharp Nose.



Flat Nose.

which results from the destruction of the bones and cartilage of the bridge by chronic ulceration, due to presence in the blood of the infants, the syphilitic poison of their parents. These children suffer from a chronic catarrh of the nose, called the "snuffles" which results in ulceration, and finally the bridge breaks down and even perforates. The tip of the nose is sometimes affected with a tubercular ulceration and is eaten up by it. This is known as Lupus.



Lupus.

The septum or the partition wall of the nasal cavities should always be straight in the middle line in a healthy nose. A deviation of the septum to one side or the other is faulty and is liable to congestion, that is the wall becomes red and swollen and therefore, obstructs the free passage of air into

the lungs. The Turbinated bones inside the nasal cavities may likewise become congested and give rise to nasal catarrh and obstruction to

Nostrils.



Septum.

breathing, and mouth-breathing follows. These congestions of the nasal passages may result from the inhalation of foul air, soot and dust or from chilly air. A chronic catarrh of the nose may bring about complications by extension of mischief to near about organs, such as the ears, throat etc. as has already been stated, and even cause suppuration (pus) of the ears, the frontal bones etc. Many lung diseases like asthma, pneumonia, etc. may take place having their origin in the nose. To keep the nose in a fit condition, one should live in fresh air always.

Special attention should be given to the nose of children as nasal defects in them, are liable to retard the proper expansion of their chest, and render them prone to diseases like asthma, chronic bronchitis etc. In addition to the common defects of the nasal cavities already described, a kind of growth takes place in children at the junction of the posterior nares and the throat, which is called the adenoids. These hang from the upper wall of the back of the nose and obstruct the passage of air into the lungs, which results in mouth breathing. Some-

times these growths obstruct the communications of the cavities of the ear with the throat (mouths of the eustachian tubes) and thereby block the ears. Mouth breathing leads to deformities of the jaws and teeth. A chronic ear trouble or deformed chest wall in a child, should always arouse suspicion of these growths. A routine inspection of the nasal conditions of children, is therefore, essential in order that a permanent defect in their system is timely avoided. As preventive measures to the occurrence of these defects the children should be reared up in ventilated rooms and in plenty of fresh air. Closed rooms, overcrowding, dust, foul air, are the causes that bring about the diseases of the nose, throat and lungs. Something, here, may be said regarding the treatment of the nasal congestions and chronic catarrh by simple methods. Besides the breathing of pure air douching the nose every morning with plain boiled water, or better still with normal salt solution at body heat, in the proportion of a tea spoonful of common salt in a pint of boiled water preferably distilled water. A simple method of douching, is the sniffing up of the salt solution from the palm of the hand, so that it reaches the throat and then may be thrown out by the mouth. A glass tube with both ends open may also serve the purpose, by introducing one end inside the nose and dipping the other in the solution. Regarding drugs, one must consult a doctor.

"Mirth is Medicine and Laughter lengthens Life."

—ROBT. INGERSOLL.

Sudden Death due to Heart Failure

—By Dr. U. Venkata Rao,—

Medical Practitioner, "Sudarsana", Madras.

WE have been reading very frequently, of late, in the obituary list* of the daily newspapers that many people especially prominent in the public eye, usually die suddenly of heart failure. Many think that God favours them a peaceful end without the pain, misery and troubles, the usual accompaniments of death, and at the same time does not allow them to become a burden to those around them—relatives and friends. But this should not be. Even according to our Śāstras, a lingering death at least for a few days is preferable to a sudden end as the former will enable one to think about God through suffering and give time to reflect upon his omissions and commissions during his lifetime. It not only allows the person to convey his intentions, desires and experience to those about him, but also prepares his relatives and friends to meet the crisis. A sudden end is always sad to the person himself and those about him—a profound shock.

Many prominent persons, be they men with high literary attainments, great thinkers, politicians, social or religious reformers, statesmen or administrators, inventors, or research workers, traders or industrial magnates do often die suddenly of heart failure. These people have risen to prominence through laborious occupation with penetrative insight in their sphere of activity. To be successful in any progressive achievement one has to put in a great struggle to fight out the

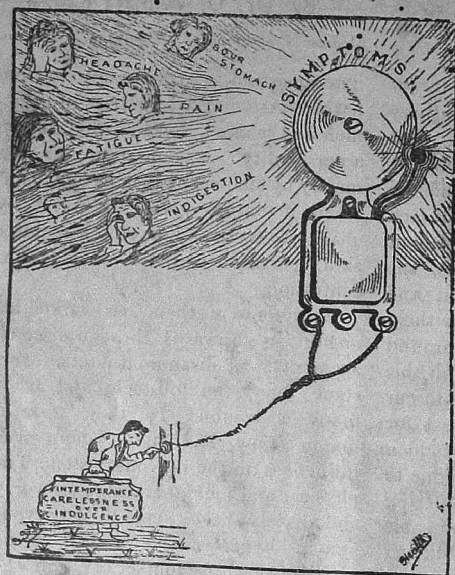
ignorance and to win the secrets from nature. As you read the lives of great men and women, you find that seldom a personality has come to prominence merely by chance, or luck or by favour. Even if nature gives its secret by chance, to work and develop it requires skill, persistence, patience and concentration.

Every one of them has worked his or her way upwards through discouragements and disappointments, overcome many an obstacle and faced many a trouble. In their onward march they had many depressing influences on the nervous system. The physical and mental strain with worry and anxiety have made their nervous system hypersensitive and it is no wonder that in course of time the over-sensitive nervous system breaks down. The heart has a complex nervous and muscular system. An excessive mental or physical strain and even prolonged strain without rest brings about nervous breakdown under the influence of emotions and thus deranges the action of the heart. A sudden shock or excessive emotion brings about the sudden end. Failure or success has the same effect:

Now-a-days, even ordinary middle class people without any call to prominence do frequently die suddenly from heart failure. Such people might have lived a worried life with poverty and ambition as background in their domestic and social struggles or with unfulfilled megalomaniac schemes to become suddenly rich and thus lost

even the little they possessed by gambling through cards or lotteries or turfs.

may die suddenly in one of their drinking bouts of over-indulgence in food or venery. Such people often become obese and diabetic without the proper exercise of the body and control over their stomach and develop fatty heart. Excessive indulgence in tobacco is another cause which produces nervous heart.



The evil effects of Intemperance, Carelessness and Over-Indulgence.

People who live irregular, careless, immoral lives and those who frequently overeat and drink too much, the party politics, elections and platforms, may collapse suddenly through emotional excitement.

CHAMPION BLOOD DONOR

Raymond Briez works in the public markets of Paris, but he also has a thriving business of his own. He engages in the manufacture of blood, and since he entered the business in 1924, he has sold 257 quarts.

The output of Briez's human factory—his own body—is enormous when one considers that it takes only $7\frac{1}{2}$ quarts of blood to fill the blood vessels of an adult man. During 1935, Briez manufactured enough blood to supply himself and to give 98 transfusions. Each transfusion averaged about 10 ounces. Last year broke all his previous sales-records.

The champion blood donor of Paris started his manufacturing business in a small way. In 1924, he gave blood for four transfusions. The next year his orders jumped to 38. In 1927, the number of transfusions supplied by him attained the astonishing figure of 94, and from that time until 1935 he averaged from 50 to 60 a year.

No ill effects have been noted, and Briez is always ready for another call, according to the Paris correspondent of the "Journal of the American Medical Association."

—THE ORIENTAL WATCHMAN.

The Village Barber

—By Dr. Phani Bhusan Mukerji—

Burdwan

HEREIN I am depicting the nature of the dirty village barber, totally ignorant of the "Asepsis and Antiseptis" of surgery and the way in which he pollutes healthy persons with disease-germs by means of his contaminated instruments thereby endangering their lives. The diseases he transmits are quite preventable if some precautionary measures are taken at the outset.

Every one is well aware of the fact that the village barber comes armed with a pouch or bag made of canvas or leather, comprising of several small compartments inside for accommodating the different instruments he has got in his possession, viz. (1) a razor for shaving the beard, (2) a pair of scissors for clipping the hairs short, (3) an iron-rod, provided with a sharp-cutting edge at one end for nipping the nails and a blunt scoop or hook at the other for removing wax from the ear when required, (4) a comb, (5) a shaving stick or soap for softening the beard with lather, (5) a brush, (7) and sometimes a piece of alum for application to the dry beard after the shaving is over to prevent any bleeding from the surface which by chance might have been injured during the process of shaving.

I should not go into details about the technique of shaving which every one well knows.

The barber, after he finishes his operations, quite unaware of the methods of cleanliness, wipes his weapons dry with the help of dirty

rags he has got with him, sometimes gives a few strokes of his razor on his dirty old piece of leather and then restores them to their proper places in his bag.

If the instruments are not thoroughly cleaned and dried before keeping, they are liable to rust which then becomes a suitable medium for harbouring tetanus, anthrax and other spore-bearing organisms, so that when he goes to shave a person on the next occasion, there is every likelihood of his transplanting the virus of the disease on this person.

The following diseases are apt to be transmitted to an abraded skin during the course of shaving by means of a dirty contaminated razor.

(1) Syphilis, (2) Leprosy, (3) Tetanus, (4) Anthrax, (5) Erysipelas, (6) Eczema, (7) Tinea Sycosis or Barber's itch, (8) Pityriasis, (9) Ringworm and the like.

The undermentioned simple precautions may easily be taken for sterilising the instruments before shaving:—

(a) The barber should first wash his hands with soap water or warm water.

(b) The steel instruments—the razor, the scissors and the nail cutter should be wrapped in a clean piece of cloth to prevent staining and then dipped in boiling water for at least 20 minutes to destroy the spore-bearing and other micro-organisms.

(c) Or apply methylated spirit to the surface of the aforesaid instruments and ignite them with a match stick.

(d) Or thoroughly wash the instruments with boiling water and then apply rectified spirit or absolute alcohol over them, if available.

(e) Or use 1 in 40 carbolic lotion or electrolytic chlorine which are easily available and do not stain.

If possible, fellow-brothers would do well to keep their own razor, which now-a-days many people are doing, and rinse it thoroughly with boiling water, prior to shaving, rather than



Leprosy, to be dreaded and avoided by all possible means. A clean barber with clean instruments means no contamination from leprosy.

fall an easy prey to innumerable diseases at the hands of the inexperienced barber.

Cases are on record where death has actually taken place from Tetanus, Anthrax and Erysipelas, due to want of sterilisation. A few years back a young Raja of Eastern Bengal died of Anthrax which he contracted by shaving probably with his own razor. Similarly an Assistant Surgeon of Behar died from Erysipelas acquired probably from his own razor. A friend of mine suffered from leprosy—a bitter consequence of shaving with barber's razor and has since given up shaving altogether.

Barber's itch, eczema, ringworm, Prurigo, Pityriasis and other skin diseases are frequently met with in every day practice as the evil effects of shavings, the majority of the lay public being accustomed to get themselves shaved by the barber.

Mysterious are the ways of God and it is a wonder that we do not fall victims to so many diseases in spite of such unfavourable environments at the hands of the illiterate barber.

My apology to the readers for dealing with such a common and uninteresting subject and my thanks to Mr. K. Nath, the senior Sub-Inspector of Police, Batera P. S., a regular reader of "Health," for his kind suggestion of the topic, which I have dealt with here.

When you get into a tight place and everything goes against you, till it seems as if you couldn't hold on a minute longer, never give up, for that is just the place and time that the tide will turn.—H. B. Stowe.—Home and Country.

The Importance of the Teaching of Hygiene in Schools and Colleges*

Introduction

THERE is one subject that hardly receives the attention it deserves from the Educationists and the State, and that is the subject of the teaching of hygiene in our schools and colleges (including the institutions for training teachers).

The aim of education is the harmonious evolution of all faculties, physical, mental, moral and spiritual. Without physical health, the other faculties cannot be developed. True education should denote therefore, the preparation of the child as it grows, in all its respects, for the duties and responsibilities of future citizenship.

The duty of the State in Health Education

In the struggle for earning their daily bread, thousands of families have to make a compromise between the duty of feeding their children and the duty of educating them. Thousands more in sheer ignorance, completely neglect the duty of educating them, when they can. In such circumstances, it is the State that should step in for giving the lead and guidance, while by example, it may make a convincing appeal for private effort, help and benefaction. In a large measure the duty of educating the people devolves on the State.

Health and Citizenship

The poor health and physique of the people of India, and of our Presidency in particular, and the appalling way in which they fall easy victims to the devastating epidemics that, from

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time to time, sweep over this country, are proof that there is something radically wrong in the health and stamina of the people, which fail to protect them from such a tragic fate. The steps taken at present to prevent the prevalence of such epidemics form only a part of the preventive measures to be adopted. The basic work lies in equipping the individuals of a nation with the knowledge that would enable them to protect themselves against such catastrophies and to maintain themselves in a state of good health and vigour.

The ideal of equipping the individual with good health and a sound body for good citizenship must really start at the pre-school age. But a beginning in this direction should be made at least with the children of the school-going age. The school child must be fitted for both the school life and the duties of future citizenship.

The need for the teaching of Hygiene

It should need no argument to convince that health must be the basic acquisition of the scholar, and in that matter he must be made as early as possible self-reliant and as much as possible independent of the doctor. In other words, the knowledge necessary to maintain the individual in a state of health must be among the

* Extracts from the Lecture delivered by Dr. T. S. Tirumurti at Sir M. Ct. Muthiah Chettiar's High School in connection with the Education Week Celebration in the city.

first to be imparted to the scholar, whether he be in the elementary, or secondary school or in the College.

Good citizens should know the fundamental reasons for the promulgation of the wise laws of public health and sanitation. A person who understands clearly why fresh air, pure water, suitable diet and muscular exercise are beneficial, is much more likely to aim at getting them than those who merely have a vague sort of notion regarding them.

The responsibility of the Teacher

A systematic and incessant campaign of instruction in hygiene should be organised in schools and colleges, but it cannot be carried out, if the teacher within the school is not informed on these subjects or does not know how to put health ideals into practice. The school doctor or school medical inspector cannot replace the teacher in routine matters of hygiene, (as the former comes into contact with the student only at definite intervals for brief periods, while the latter's influence is more sustained) owing to longer and daily contact. Therefore, the teacher should possess at least some special knowledge of hygiene, especially, the hygiene of the school and school life.

Values of Hygiene Teaching

The system of education should aim at developing in the scholar a health and sanitary conscience and hygienic ideals.

Health and Character

It is realised that the connection between physical health and the power of voluntary control and consequently of conduct is very close. Preservation of health is therefore an aid to charac-

ter-building and thus the subject of school health makes a double appeal to us.

The need for the Co-operation of the School and the Home

The school may advise regarding the child's health. But, the primary duty and responsibility rest on the home. Co-operation of the home in many things is needed, frequently without suggestion from the educational authorities. Part of the home programme should be arranged to form a correlation with the school health work.

Health first classes

The discovery of certain defects either in physical or in mental development should result in the recommendation that the child be placed in the so-called special classes, in which attention to health is the first objective. This should be regarded as a privilege and not a stigma. And every parent should then carefully avoid thinking, much less expressing, derogatory sentiments regarding such special groups. Special classes should be provided to promote the welfare of the individual child as well as of the group.

Health education in the School and the Home

Unfortunately many parents feel much more confident of their own knowledge and judgements (often based on error, superstition and ignorance) regarding health, than of most other subjects which their children are studying in school. The open-minded parent will get many useful health suggestions from the child attending school, if hygiene is taught in it. In any case, perhaps, he can find no more interesting nor fruitful opportunity for helping the school

than in matters affecting the health training of the children.

Health has to be bought

It costs money to carry out a programme of health teaching. "Health has to be bought with money." Lack of funds gives a setback for the initiation of a workable scheme or hampers the work, where some tentative scheme is in force. Who can estimate the real value of the health education of children, measuring it in terms of its actual worth in later life to the individual, the home and the nation?

Girls should be taught hygiene, not only for their own sake but for the sake of the future generation. Women are better teachers for the elementary schools. Health laws should be taught to them, so that they may teach the children who learn from them.

A scheme for the teaching of Hygiene

If a beginning is made by introducing the teaching of hygiene in training schools and in the schools in towns, and as a subject in the University courses for diplomas and degrees, in a reasonable time there will be a sufficient supply of well-qualified teachers for the systematic teaching of the principles of hygiene in all schools (including rural).

Mental, marriage and sexual hygiene should be taught to the College classes.

Health and Unemployment

These are days of unemployment for the educated and the uneducated. The majority of the educated, including the University graduates, do not secure soft jobs in government service as in the years gone by. They will have to take up the harder jobs in other walks of life. A better quality of health and a hardier type of constitution will be required for our educated young men to fight the battle of life and to face the struggle for existence. The days of mere book knowledge are gone in other parts of the world and are going, though slowly, in India. Therefore, there can be no better insurance for our children than sound health.

In a large majority of instances we witness the pathetic spectacle of the environment mastering our educated youths; most of them sit idle with folded hands not knowing what to do and how to engage themselves in useful occupations. If you probe to the bottom this inertia in our educated youths, you will detect the basic factor to be the want of "zep" in their bodies owing to poor health and vitality.

"I am one of those who believe in publicity. I think in a good many directions we do not make sufficient use of it, and I hold that view very strongly in connection with health work; I believe that a great deal can be done not only by stirring public opinion, but also by interesting the parents concerned."—*Rt. Hon. Sir Kingsley Wood, M. P. Minister of Health.*

Upkeep of the Digestive Organs

By R. Rajagopalan B.A.,

Ootacamund

As vital as any other part in the body are the organs of the abdomen. So to say, the abdomen is the generator in the human mechanism which supplies energy to all parts of the body. It is there the food is converted into energy and as such, abdominal organs have a hold on all the other organs of the body. Any disorder in its working is reflected in the general health of a man. A day's fasting produces weakness and inability for any work. Any stomachic disturbance causes irritability and other disagreeable moods. Unclean bowels make the body susceptible to all diseases. Hence it is essential that we should devote special attention to the abdominal organs and especially keep a watch over what we eat.

Dietetics have become more or less a fad among the modern people. The importance of vitamins has suddenly been discovered and people are keen to swallow vitaminous food. There are people who are eager to gulp in vitamins A, B, C or D as they are but as it is not practicable now, they pick up their food from the vitamin table. Vitamins there are in plenty in Nature and in whatever we eat. There is no need to select but the whole basis of dietetics is assimilation. When the world started our ancestors had no dietetics but lived only on God-given fruits, roots and leaves. They were able to live beyond the century mark and produce wonders. But by generations we have been trained to live on fired foods and a sudden transgression will not be welcome. Only gradually we can go back to Nature. Perhaps the world has reached a

climax and is on the wane now; for there is a craze among the people of the world to go back to Nature. Now only, the efficiency of the natural methods and diet have been discovered.

The first step should be to avoid all narcotics and stimulants, whose action on the system is supposed to be energising whereas on the contrary they only let loose our reserve energy and thereby make us bankrupts. Bottled waters and tinned foods must be avoided. They are unhealthy and only satisfy the palate. Clean-living and simple diet are enough to maintain normal health. Our grandfathers ate only cooked food yet they were stronger and healthier than us. Diabetes, appendicitis, and heart failures were not common then. Only the idle wealthy class were subject to these diseases. Now-a-days even a very poor man falls a prey to them. It is certainly due to unhealthy ways of living which are attributed to modern civilisation and advanced culture. There are splendid men among the older people who are imagined to be "18th century men" and cranks. The modern generation with up-to-date notions of dress and manners are not pictures of health. Dissipation and disease are marked in their faces.

People who aspire to lead a healthy life should firstly keep a watch over what they eat and drink. Extreme dietetics are not at all necessary for all men. Only persons who are subject

to chronic diseases should undergo a strict diet. As an optimist I would say that men should avail of all opportunities in the world to enjoy and to satiate their desires. Desires of the palate cannot be controlled, except by yogis, but discretion and moderation must prevail for healthy living. 'Eat when you are hungry and drink when you are thirsty' is a fundamental principle which has the support of nature. Beasts which are not yet affected by modern fanciful notions—there are exceptions of aristocratic pet dogs, horses and even lizards!—follow this maxim very rigidly and they are rarely ill. When the stomach is full one should not sit at his meals just to keep up the routine. For an average man there should be no great feasts and no long fasts. But after a feast there should be a fast for allowing the digestive organs to rest. If one had a heavy morning meal it is necessary that he should miss his night meal to avoid indigestion.

Next to eating comes the cleanliness of the bowels. One should never be satisfied if he does not have a free motion early in the morning. Evacuating the bowels twice a day is very good. There is a proverb to the effect that two evacuations and three urinations a day keep the body healthy. A healthy man will abhor a man taking food without emptying his stomach in the morning. Just imagine an unwashed gutter with stagnant filth. Our stomach and intestines are no better than that when they are unclean. If you are going to stuff in fresh food, however palatable and nutritious it may be, they get contaminated certainly and are not assimilated.

There are artificial methods of cleaning the bowels and stomach. Re-

garding the former, I have dealt with in detail in my previous article, "Clean Bowels". Now I shall deal about the cleaning of the stomach.

Very efficacious and harmless methods are found in the Yogic system. Hatha yoga, the spiritual exercises for the body, furnishes the best methods of cleaning the stomach, called "Dhautis". Yogis insist on clean bowels and stomach for the purity of body and mind. They are so pure that they are conscious of even very slight accumulation of dirt or contamination in their digestive organs. They take recourse to Uddiyan and Nauli very often to keep the bowels clean. If even after these they feel any filth in their system, they use methods of "Dhautis" which are of various kinds. Here I shall deal with three of them.

The first is a process of airing the internal organs and oxidising the impurities therein. Sucking in air, through the mouth, filling the stomach with it and after retaining it for a few minutes sending it out through the anus constitute this system which is called "Vari Dhauti".

The second is the cleaning of the stomach by a short length of soft flexible rod. Usually the stem of turmeric or plantain is used. Now-a-days rubber tubes measuring about 18 inches can be used. Two or three cups of water are taken in early in the morning and then the tube is swallowed. Water with mucus and dirt comes out through the tube and this process is called "Dhanda Dhauti".

The third is a process of cleaning the stomach with a long piece of cloth. A cloth 2 or 3 inches wide and 30 feet long is swallowed slowly and then pulled out when the stomach and

gullet are cleaned well. This improves digestion and removes mucus. This process is called "Vastra Dhauti."

The above methods though harmless are not to be practised without the personal guidance and supervision of an expert. They are effective methods of curing indigestion, constipation, and other ailments without drugs.

Hatha yoga is a complete system of body building and health maintenance. No other system of physical culture gives exercise to the internal organs,

glands and nerves so well, with the least strain.* As a natural method of cure for all diseases it has no parallel. "The result of this part of Yoga is to make one live long; Health is the chief idea—the one goal of the Hatha Yogi. He is determined not to fall sick and he never does. He lives long. A hundred years is nothing to him, He is quite young and fresh when he is 150 without one hair turned grey," says Swami Vivekanand and we need not say more about the efficacy of this system in the maintenance of health.

● Topics of Interest from Health Periodicals ●

A New Vitamin.—A Hungarian investigator has found a new vitamin which has been named vitamin P, the function of which is to prevent the purple spots which sometimes form beneath the skin and the mucous membrane, as the result of leakage of blood from the blood vessels.

This condition, known as purpura, is commonly cured by the administration of the new vitamin which is found in peppers and lime juice, in which it is associated with vitamin C, the so-called antiscorbutic vitamin.

Recent studies have shown that the purple spots which usually appear in cases of scurvy, are not cured by pure vitamin C, but they are cured by the new vitamin P, which in peppers and lime juice is associated with the scurvy-preventing vitamin.

Several nutrition experts have expressed the view that there are many new vitamins yet to be discovered, so we may expect to wake up almost any morning and find a new vitamin on

the doorstep, in the morning paper.

These miracle-working food constituents are attracting increased attention as knowledge concerning them is advancing through the discoveries being made by hundreds of acute investigators, searching every nook and corner of the vegetable world in quest of unknown members of this remarkable family of vegetable products on which the animal world is dependent for the production of these subtle substances which render essential service as activators or excitants of almost every form of activity in the animal body.—*Good Health (U.S.A.)*

Snake Venom to stop Hemorrhage.—In spite of Shakespeare, the toad is not venomous and does not bear a precious jewel in its head. Russell's viper is a very deadly snake yet carries a valuable substance in its fangs. Its venom has been found to have a remarkable potency in checking hemorrhage. Scientists had long

known that certain snake poisons had the effect of coagulating the blood. A suggestion that this power might be used in medicine led to experiments by Dr. R. G. Macfarlane, a London pathologist, in which he had the cooperation of Burgess Barnett, curator of reptiles of the Zoological Society of London.

Nearly all the poisonous snakes available were tested. They were made to bite through an oiled silk membrane stretched over a glass container. Then the glands and ducts were manipulated to secure a pure poison. Only one variety was found to be really serviceable. That was the Russell's viper, which is common in India, Ceylon, and Java.

The research was conducted with especial reference to aiding persons suffering from hemophilia or bleeders' disease. In this there is a delay in the coagulation time of the blood tending to prolonged hæmorrhage. It is a most dangerous condition, since a very slight wound may cause death. In fact some persons have bled from the ear without any injury. A son of the former king of Spain was a "bleeder" and died a year or two ago from a very slight injury received in an automobile accident. The flow of blood could not be staunched. The son of the last Czar of Russia had hemophilia, and the monk Rasputin obtained such a hold on the Czarina in part because she believed that he alone could save her son's life. Only males are subject to this condition, but it is transmitted only through the female.

A solution of one part to a thousand of the venom coagulated hemophilic blood in seventeen seconds, while thirty-five minutes was required for it to clot spontaneously. The coagula-

tion was also more tough and elastic. Even one part of venom in a hundred thousand was enough to cause clotting in sixty seconds. Normal blood clots in about three and one-fourth minutes in the method used in these experiments. Extensive tests made upon animals showed no ill effects of any kind from the application of the diluted venom.

Writing in the *Lancet*, the two experimenters say the snake poison has been used with success clinically. In patients with normal blood it was employed twenty times after dental extraction and tonsillectomy, and twice to stop capillary oozing during abdominal operations. In persons suffering from hemophilia it was used in dental extraction, nosebleed, and upon a wound. The pulling of the teeth would have been highly dangerous without some means of stopping hæmorrhage.

A similar experiment has been conducted at Mount Sinai Hospital in New York for three years but without success. The venom of the moccasin was used. This accords with the experience in London that no snake other than Russell's viper will serve the purpose.—*Good Health (U.S.A.)*.

City Enemies of Health.—Perhaps the most important of all death-dealing agencies which are most active in cities is pollution of the air. Recent observations have shown that this is the chief source of nose disorders, from which so great a proportion of all city dwellers suffer more or less constantly during the colder months.

Irritating poisonous gases escape from every city chimney, sometimes in such dense, concentrated form as to be visible in clouds of smoke

belching from chimney tops. The air of cities often becomes so closely contaminated with poisons that shrubs and flowers and other forms of vegetation either die out completely or remain as puny survivors.

The crowded conditions of our great cities have developed not only grave public health problems but equally as grave moral and social problems. City dwellers, once a meagre minority of our country's population, now represent two-thirds of the people of the United States, or more than 80,000,000 Americans. The time is not far distant when there will have to be an exodus from the cities back to the country. This the writer believes will be found the only solution of the unemployment problem.

Man is a born agriculturist. One acre of land if intensively cultivated will easily produce food enough to support a family. A man with a comfortable cottage and a few acres of land properly located in the country, with industry and wise management, may consider himself well fortified against the terrors of starvation, and well prepared to keep the wolf of hunger from his door.—*Good Health (U.S.A.)*

Aphorisms of Fuller.—Moderation is the silken string running through the pearl-chain of all virtues.

If thou'ldst be borne with, bear with others.

Let friendship creep gently to a height; if it rush to it, it may soon run itself out of breath.

Search others for their virtues and thyself for thy vices.

Thou oughtest to be nice even to superstition in keeping thy promises;

and therefore thou shouldst be equally cautious in making them.

He lives long that lives well; and time misspent is not lived but lost.

He that smarts for speaking truth hath a plaster in his own conscience.

If thou art a master, be sometimes blind: if a servant, sometimes deaf.

Learn to hold thy tongue: five words cost Zacharias forty weeks' silence.—*Canadian Med. Assoc. Journ., Feb., 1936.*

Dietary of Expectant Mothers.—

In the Leicestershire ante-natal clinics the out-standing problem is the diet question. Dr. J. A. Fairer, C.M.O., writes "Our experience convinces us that dietetic deficiencies, particularly as regards mineral salts and iron, as well as vitamins, are extremely common. To combat this unsatisfactory state of affairs which is a contributory cause of much maternal ill-health and infantile anaemia, we give special attention to the investigation of individual diets and personal advice and instruction, and we have prepared a simple leaflet to further this educative part of the work. When symptoms of deficiency are already present calcium lactate and cod liver oil are advised. Prenatalac is also used as a means of augmenting the iron intake. In many cases the financial circumstances are a complicating factor which is beyond our control except for the amelioration of a 'milk grant during the latter weeks of pregnancy." Dr Fairer adds "that in a very large number of the cases the poor quality of the diet from a physiological point of view is due to rather faulty habits and fashions with regard to foodstuffs than to any real poverty.—*The Medical Officer.*

Napoleon's Baths.—Napoleon loved to bathe. It is said that on his way from Paris to Waterloo he stopped to relax in hot baths three times.—*The Treasure Chest.*

Shaw's Retort.—“Why should you call me to account for eating decently? If I battered on the scorched corpses of animals, you might well ask me why I did that.”—*Good Health (U. S. A)*

Eggs Good for Children.—Nutrition experts connected with Columbia University (U.S.A.) have been observing a group of children from two to six years of age. They find that the children who eat an egg each day are superior in health and in resistance to colds to the children who eat no eggs.—*The Treasure Chest.*

Dentistry in Ancient India.—As a distinct vocation, dentistry is first alluded to by *Herodotus* (500 B.C.). There are evidences that at an earlier date Egyptians and *Hindus* attempted to replace lost teeth by attaching wood or ivory substitutes to adjacent sound teeth by means of wires or threads.—*The Journal of Ayurveda.*

The Age of the Universe.—Astronomers do not agree as to the age of the universe. Sir James Jeans (British) thinks that the Universe has existed in its present form for 10,000,000,000,000 years, but Dr. Bok of Harvard University (U.S.A.) claims that the Universe cannot be more than 20,000,

000,000 years old. This is less than one per cent of the age suggested by Jeans, but even so it is beyond our comprehension.

Compulsory Breathing Exercises for Indian Schools.—In any survey of the health of India it would be difficult to exclude a reference to breathing. As oatmeal is to the Scotsman and rice is to Chinese, so is breathing to the natives of India. Home of the world-famous Yogi breathing exercises, it has now been pronounced compulsory by the Rajah of Aundh, the ruler of some 70,000 people, for breathing exercises to be performed daily in all the State schools, a measure which could be adopted with consequent improved health by the peoples of many Western nations.—*Health for All.*

H. G. Wells a Vegetarian.—In a recent book, “A Modern Utopia,” H. G. Wells joins the ranks of many other notable intellectuals, in recent years, in the meatless regimen. He says, “In all the world of Utopia there is no meat. There used to be. But now we cannot stand the thought of slaughterhouses. And, in a population that is all educated, and at about the same level of physical refinement, it is practically impossible to find any one who will hew a dead ox or pig. We never settled the hygienic aspect of meat-eating at all. This other aspect decided us. I can still remember as a boy the rejoicings over the closing of the last slaughterhouse.”—*Good Health (U.S.A.)*

Health Calendar—November 1936

By Mr. N. Rajaram Naidu,

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- Sun. 1 *Shaba Barath.*
Mon. 2 Wear sufficient clothing to protect the body against cold.
Tues. 3 A happy baby makes a happy mother.
Wed. 4 Eye defect handicaps many children in school work.
Thurs. 5 Flies and mosquitoes are your dangerous enemies.
Friday 6 *Parasite which produces Malaria discovered by Liveran 1880.*
Sat. 7 Healthy parents, healthy children.
Sun. 8 Drinking fosters ill health.
Mon. 9 Colds are communicable.
Tues. 10 Unwholesome food is dangerous.
Wed. 11 *Pasteur Institute founded in Paris 1888.*
Thurs. 12 Careless spitting should be avoided.
Friday 13 *Deepavali.*
Sat. 14 Work and sleep where there is plenty of fresh air.
Sun. 15 A woman is as old as she looks and a man is as old as he feels.
Mon. 16 Dirty nails convey germs.
Tues. 17 Healthy growth is always slow.
Wed. 18 Avoid foul air.
Thurs. 19 How to eat is as important as what to eat.
Friday 20 Filth is the mother of sickness.
Sat. 21 Pure water—Best tonic and blood purifier.
Sun. 22 Do not muffle the neck too much: it makes the throat sensitive.
Mon. 23 Avoid poisonous drugs
Tues. 24 Cleaner the teeth, brighter the smile
Wed. 25 Prevention is the anchor of health.
Thurs. 26 Those that live in the open keep the best of health.
Friday 27 Never sleep on damp floors.
Sat. 28 Food is not all digested in the stomach: therefore chew-chew-chew.
Sun. 29 Dirt means disease sooner or later.
Mon. 30 You owe it to yourself and to your country to keep in good physical trim.
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