

Health

*A Journal Devoted to
Healthful Living*

Edited By Dr. U. Rama Rau & U. Krishna Rau M.B.B.S.

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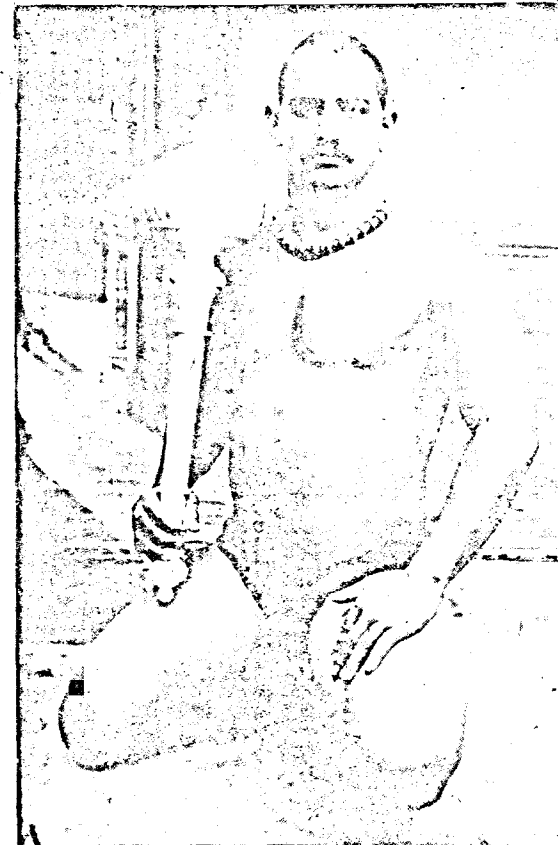
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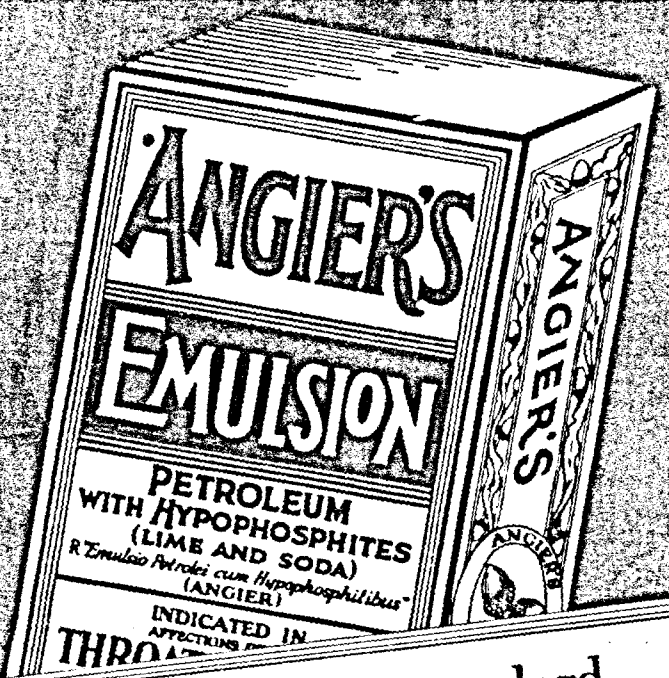
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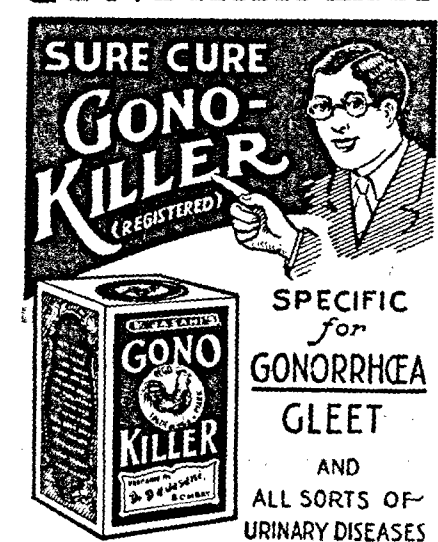
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GONORRHOEA?



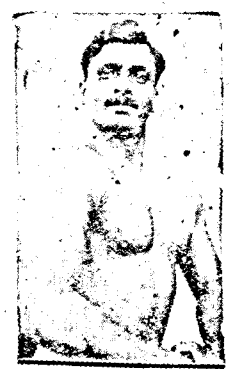
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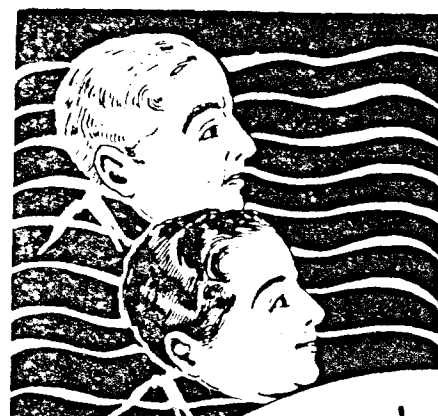
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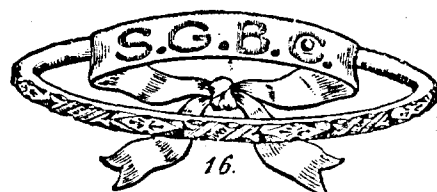
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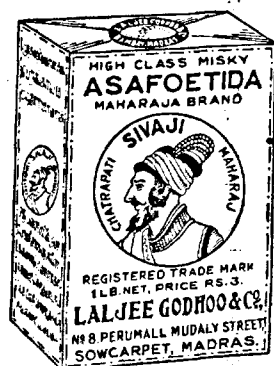
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EDITORIAL

Children and Cinema

WITH the rapid development of the Cinema—the movies and the talkies—throughout the civilised world and the passionate yearning shown by men, women and children to have recourse to this kind of recreation, in preference to games, the stage, music and dance, a serious problem of national and international importance has arisen which calls for speedy solution. The film has a special and peculiar appeal to the audience. Its success depends on the thrilling sensation it produces on the bodies and the vivid impression it creates in the minds of the spectators. To effect these results, every device is employed to exaggerate the physical expression and suggestive action and thus intensify the visual impression.

What are the advantages and disadvantages of the Cinema? With regard to its advantages, as we have already

said, the Cinema is primarily an instrument of recreation. It is perhaps the cheapest form of entertainment to the mass of the people. It satisfies the eyes and the ears, gives tone to the nerves and exhilarates the system. Secondly, it is an instrument of education. "It can be used educationally, in the limited sense of the word, as a mode of supplemental instruction in schools and colleges and for illustrating certain technical and scientific processes. It has, however, a special value as a medium of education in the wider sense: for the purpose of propagating ideas or information among the masses on such subjects as public health, hygiene, improved agricultural methods, civics and a variety of other matters."

Now, with regard to its disadvantages. We shall consider them under four different aspects—physical, mental,

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moral and religious. While Cinema feeds the eyes, with its fine sceneries, it enfeebles them, by causing eye-strain and gradually renders them unfit for service. Though statistics are not available, we make bold to say that more men and women have become prematurely blind as a result of constant attendance at the Cinema. In the case of children, the harm done to their tender eyes is incalculable and irreparable. The Cinema is exhibited in darkness and in the glare of magnified electric lights. When suddenly children are rushed into the open, after the Cinema is over, their eyes are unable to return to their normal condition, with the result that they complain of eye-strain and head-ache, which may ultimately lead to loss of sight. Restlessness among children is another result of cinema. There is over-tension of the nerves, which is responsible for their restlessness. "Highly exciting pictures tax the heart too much and may lead to heart-trouble. Scenes of horror sow the seed of future nervous disorder." Then there is overcrowding and utter lack of ventilation in the theatre and consequently, the air becomes impure and unwholesome. It may be said there are electric fans but they are no proper substitutes for free perflation of air. Here is sown the seeds of tuberculosis and other pulmonary diseases. So much about the physical aspect of Cinema.

Taking the mental aspect, there is always an exaggerated and distorted view of life presented to the children at the Cinema. Their minds at that impressionable age become saturated with those ideas and they begin to behave similarly. They lose self-

control and forget all the teachings of the home and the school. Disobedience, disloyalty and other characteristic traits which they imbibe, are at once put into action and they are transformed into lawless rowdies in their adult-age.

As regards moral aspect, there is a good deal to be said against the Cinema. Cinema, at the present day, is the root-cause of more than 75 % of thefts, dacoities, murders, shootings, bombings kidnappings, divorces, looseness of sex-morals and other horrible crimes. Children, being the best imitators, soon find these things as easy roads to success in life. "Tricks practised by the screen crooks are used to secure easy money and trains are stopped to loot treasures after the picture-fashion. Boys and girls seek to engage in sexual relations after being sexually aroused by the motion pictures".

On the religious side, there is nothing to be said in favour of the Cinema. There is no place for God and religion in Cinema. "The film stars aim at being smart, daring, clever, rich, thrilling and passionate. They have lost sense of spiritual value. And without a sense of spiritual value, no worthwhile character can be produced".

In an able and interesting article by Mr. W. A. Watson, M.A., L.T., of the Lucknow Christian College, published in the Educational and Literary Supplement of "The Hindu" of October 2, 1935, valuable hints are given as to how to redeem the children from the blighting effects of the Cinema. Briefly stated they are: (1) that substitutes for motion pictures should be provided such as healthy outdoor recreations and excursions,

music and dramatics in the evenings, (2) that proper films should be selected by the parents who should always accompany the children, (3) that parents should explain the true significance of the actions in calmer moments, stripped of all their exaggerations and unrealities, and (4) that

by the Cinema films imported from foreign countries, in spite of strict censorships and we are glad that the demand for a better type of films, purely Indian in thought and character, is being rapidly met by Indian film producers. Scenes from ancient religious books of the Indians, which



Shanta Kumari.—Who played Ratnamala in Saint Tulsidas.

the entire community should be educated with regard to this vital problem and that, in the interests of their own children, they should demand better types of motion pictures.

Already, a good deal of mischief has been wrought to youngsters in India

infuse ideas of honesty, industry, modesty, chastity, fidelity, loyalty and such other good traits are being exhibited now and we hope that with the active co-operation of the Indian Community and the film stars and film producers, the stigma, that is attached to the

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Cinema generally, will be wiped out and the Cinema will ere long, become a potent influence for good alone and not for good and evil, in this country.

We are glad to announce that the Govt. of N. W. F. P., on the recommendation of the Director of Public Instruction, have been pleased to include our journal, 'Health', in the list of journals and newspapers approved by the Govt. for use in Schools, in the N. W. F. P. for the year 1935-36. We take this opportunity of thanking the Govt. of N.W.F.P. and the Director of Public Instruction for their appreciation and due recognition of 'Health' as the proper medium of health education in schools in their area.

Marriage

By

DR. DEBENDRA NATH BANERJEE,

B.A., L.M.F.,

P. O. & Vill. Pantihal, Dist. Howrah.

INDIANS do not take as much interest in respect of selecting a bride or bridegroom, as is essentially necessary from a medical point of view. We generally look to beauty, prospect and social position and nothing more than these in almost all cases. We should bear in mind that it will be an offence on our part, if we remain blind, in selecting a life-long mate. Marriage of the Hindus, we know, is a part of their religion.

From a medical point of view, the following things should be considered before marriage takes place. (1) Age, (2) Health, (3) Habit, (4) Intelligence, (5) Parentage, (6) Social position.

1. Age

Both male and female should attain

puberty before their marriage takes place. The difference of age should be, at least ten years, the male in all cases being older. Early marriage is a source of national degeneration. If a boy of 14 marries a girl of ten, in the course of three years, we may expect an issue from them. So, in about ten years, the boy will be the father of about seven children. As a matter of fact, we cannot expect healthy children from those who are not mature in age and complete in physical development. Before he is grown up and able to support a big family by his income, he is over-burdened with a big family of his own. In a majority of cases, he will have to struggle hard to make both ends meet. Besides that, he will find it very difficult to give proper nourishment to the children, not to say of giving them proper education. Under these circumstances, his life will be a misery, and the early marriage will be solely responsible for it. A youth of tender years is generally addicted to sexual excesses, as a result of which, his health is broken down and he looks like an old man at the age of twenty five. Moreover, when the girl attains her 23rd year, she will be mother of seven children. She will have to pass sleepless nights with cares and anxieties for her children from her 13th year, when the dreamy days of her childhood are not over. Consequently her health will be broken down due to frequent pregnancies, at an early age, when her body is not properly developed. Under these circumstances, early marriage should be strictly prohibited.

2. Health

Health of a pair should be consider-

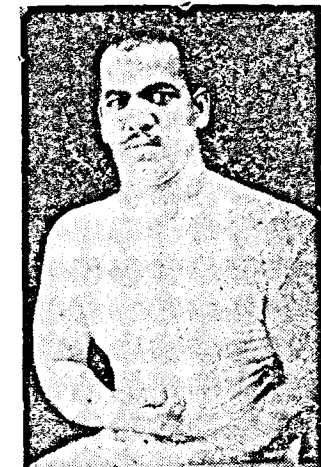
ed first of all. No one either male or female, should marry if his or her health is weak. If any one is a victim to frequent diseases, if he or she is a chronic sufferer from any disease, or

one's disease, the other will suffer and his or her life may be cut short.

Incapacity of husbands is mostly responsible for some of the female diseases, such as Hysteria, Dysmenorrhoea etc. Insanity may also be caused by ineffectual sexual appetite. Incapacity of husbands in sexual matters may induce the wives to commit suicide and such cases are not rare in India. Weight of husbands should in no case, be lesser than that of the



MISS MANI, KAIKHUSHROO NOBEL, (Wadia College, Poona).—Is now in B.A. class; won 1st prize in fast Cycling races in Inter College Sports Tournaments, among 24 competitors from Wadia College, Poona.



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if either of them suffers from any infectious or contagious disease, marriage between them should be strictly prohibited; but we, Indians are blind to all these things, and suffer the consequences. Unhealthy parents will give birth to unhealthy children; so, infant mortality, will be greatly increased. If either of them is unhealthy, their conjugal life will not be happy. Infection from one will be conveyed to the other; so from

wife. So before marriage takes place, the parents and guardians should see that their children and wards get suitable matches, for each other. It is a rule that one should appear before an expert medical officer to prove that his health is free from any disease if he desires to secure a government service; so in my opinion, one should produce a medical certificate of fitness, before confirmation of his or her marriage.

3. Habit and Mentality

Similarity of habits and mentality are important factors, as regards happy union. By marriage one enters into fast friendship with the other; but this friendship will persist, only when their tendencies run towards the same direction. There may be want of money, but if both of them are inclined to remain satisfied with their own lot, we may expect their happy union; otherwise whatever their position or prosperity, there will never be peace of mind in their conjugal life. One, inclined to luxury, may not like one who is a miser; one of active habits may not tolerate one, who is lazy.

4. Intelligence

Wife is generally called the better half of the husband, and this signifies that a husband and a wife, together form a complete man. So both husbands and wives should be of great help to each other in intellectual matters. We cannot expect that a man of high culture will like the companionship of an illiterate person, of limited views. If both are very intelligent and highly cultured, we may expect an issue from them, who will be a genius in the future.

5. Parentage

By marriage two probably unknown families are related to each other, and their relationship will thrive well, if there is similarity of position of both the families. Dissimilarity of social positions will slacken the tie of friend-

ship, sooner or later. Neither the husband nor the wife should consider the one superior to the other. A poor person of whatever merit cannot expect to receive hearty welcome from those who are rich and of high position. Besides that, those who are brought up in the lap of luxury cannot remain satisfied, by being united with one, who is poor. There is a gulf of difference between the rich and the poor and this will persist, if by chance two such families are united by marriage. Their conjugal life will be a curse to them.

There are certain diseases, such as Syphilis, which are transmitted from father to son or Phthisis which may infect the son though not through heritage, at least by association. So from a medical point of view also, we should be well aware of the parentage of both the families.

6. Social position

In Europe, Royal families will enter into matrimonial connections with Royal families only; and it has a high merit also. We cannot expect the same mental development from a girl of the low class as you can from a high class family. Mentality of the future generation depends upon the state of mind of the parents.

Unless proper care is taken in respect of selecting brides and bridegrooms, we cannot expect, that our future generation will be able to compete with other nations in culture, both physical and mental.

A Few Hints to the Aspirants of Jiu-Jitsu

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of which one can *Gymnastic Instructor Y.M.C.A., Coimbatore.* structure, a well-
easily escape *aimed and tim-*
from a tight corner and get mastery over *ed attack by a Jiu-jitsuan will make*
his assailant. Even though the assailant *him cry for mercy. The mere theory*



Jiu. Jitsu, Japanese way of Wrestling.

valuable though it is, will not suffice in the art of Jiu-jitsu. One may learn by heart all the words and descriptions given in a book, but hardly be a whit better off in the moment of vicious assault upon his person. The student's motto must be practice, constant practice!

The offensive and defensive feats of Jiu-jitsu combat can be undertaken without much practice or preliminary training. But the results obtained will be practically nil. Therefore it is quite essential for an aspirant to have some preliminary training before he takes up Jiu-jitsu. As the expert at Jiu-jitsu is able to defeat the boxer very easily, it follows that his blow must have both superior speed and effect.

In Jiu-jitsu, a blow is not struck with clenched fists, but is delivered with the inner or little finger edge of that palm. Therefore, these edges must be very hard, capable of inflicting injury. The edge of the hand is prepared for this attack by the following simple method which requires only time and practice. Strike the edge of the hand lightly and repeatedly against some hard surface daily for half an hour at least. It is of utmost necessity to increase the severity of this training as days go on. The harder the edges of the hand, the more effective will be the blows struck.

At the same time, the parts of the body that are likely to receive the blows from an opponent must also be hardened in this fashion. Harden the

following parts of the body by repeated attacks on them. Either have your friend or manage it yourself. The blows when practising should not be given with the same severity as in actual and serious combat.

Lower leg:—Strike across the skin on either side and in front.

Upper leg:—Half way between the trunk and the knee.

Trunk:—Squarely on either side just below the last rib.

Kidney:—In the soft part at the back just below the last rib.

Wrist:—Back and front of the joint.

Fore-arm and Upper arm:—In the middle part on either side.

Collar bone and Shoulder:—Downward blow in the middle.

Neck-sides and back:—Very dangerous. Avoid as far as possible. Employ them only in the case of 'life and death'. When striking from behind use the heel of the hand at the base of the skull with a forward, upward movement.

In striking at the throat or neck the right hand of the assailant is used against the victim's right side and vice versa. If one wishes to become an adept in Jiu-jitsu, constant practice is necessary. As the space is very limited and the subject is a very big one, I will deal with the catches and trips on another occasion. Now, my friends, begin to practise the above hardening processes faithfully and earnestly. Let your motto be 'Practice, Constant Practice'.

Breast Feeding - IDEAL METHOD OF INFANT NUTRITION

THE problem of

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Infant feeding is one which demands a good deal of atten-

DR. RAM MURTI ARORA, M.B., B.S.,
Physician & Surgeon, D.I., Khan.

Breast feeding is undoubtedly far superior to any other method of infant

nutrition. Statistics gathered from Infant Hospitals show that the mortality among the breast-fed babies is only 1/5th of the death rate among the bottle-fed and the former are more resistant to infection than the latter. Even a few weeks' breast-feeding gives the child's digestion a good start and fit it for subsequent artificial feeding if the lactation becomes a real strain to the mother. As said above, breast-feeding is best for both mother and child. The advantages of breast feeding to the mother are:—

(1) It ensures better and more complete involution (diminution of size) of uterus (where baby lies before its birth).

(2) The mother gains more intimate knowledge of the infant and its requirements and it certainly produces better physical and psychological effects.

The advantages of mother's milk to the child are not far to seek. Nature wants that baby should have its mother's milk; otherwise, why should the breasts lie dormant before the birth of baby and then begin secreting lot of milk after child-birth? The advantages are:—

(1) The child obtains natural food at body temperature without any contamination and with all its properties and vitamins unimpaired. Moreover, it gives the greatest security against intestinal disturbances like summer diarrhoea, and intestinal tuberculosis etc.

which are common troubles with the new-born babies.

- (2) The mother's milk confirms some acquired immunity against some diseases.
- (3) Being the most suitable food for the child, the latter can digest it easily and it does not upset its digestion.
- (4) It provides the child with all the suitable materials in proper proportion, thus helping it in its growth.

The most important points to be kept in mind about breast-feeding are:—

1. Time

At the outset, the child should be trained to the utmost regularity in regard to its sleeping and meals. Habits begin to be acquired from the first day of its birth. All this ensures welfare of the child and comfort to the mother and other members of the family. Disregard of this point in respect of feeding has been well said to be sowing the 'wind' and is certainly followed by reaping the 'whirlwind'.

1st day.—The child should be put to the breast three to four times the 1st day (8 hourly). This not only teaches the child to suck, but at the same time it stimulates the secretory function of the mother's breasts. The new-born babe, which depends for its nutrition upon mother's milk, for the first two or three days, loses its weight to the extent of a few ounces. But this entails no danger to the life of the baby, for the latter is supplied with sufficient reserve of nutriment to keep it on for these days of scanty milk secretion'. The mother's first two or three days' milk

is thick pale-yellow fluid called colostrum which contains more of proteins and salts and less of fat and sugar than milk, secreted later on. The child sucks some of this colostrum which is non-irritating to its stomach and has a beneficial laxative effect upon it.

Some Indian mothers think that baby is hungry soon after its birth and try to give the baby cow's milk by means of cotton wool wicks soaked in milk, because they seem to think that colostrum does not satisfy the hunger of the baby. This practice should be discouraged. At the most, sterile water or glucose water may be given between the feeds. To crown all, immunising substances are secreted in this colostrum which bestows a sort of immunity against some infections of childhood.

After the milk comes, the child should be put to breasts regularly. A healthy full-term baby of 7 pounds' weight or more should be fed at four-hourly intervals during the day and not at all during the night; 6 and 10 A. M. 2, 6 and 10 P. M., are suitable hours. A weakly premature, underweight baby should be fed at three-hourly intervals during the day and once during the night. If a baby cries at night, it means he feels thirsty and wants water, thus a few sips of warm sterile water with or without sugar will lull him to sleep. A full term strong baby sucks more milk than a premature weakly baby on account of strong sucking muscles possessed by the former. An average healthy baby needs $2\frac{1}{2}$ ounces of fluid per pound of its body weight, $1\frac{1}{2}$ ounce of milk is required per lb. of the body weight *e.g.* an eight-lb.-baby needs 20 ounces of fluids, out of this 12 ounces of milk are

required. Divided into five feeds, it makes $2\frac{1}{2}$ ounces per feed.

2. Duration of Feeds.

Average time, that a baby could be put to breast is 15 minutes at a time. If both breasts are used for each feed, seven minutes at each breast is sufficient. At the beginning both breasts should be used at each feed and as quantity of milk increases, the feed in the 2nd breast is gradually diminished until only one breast is used at each feed. The child should be kept awake all the time it is sucking. This can be done by gently tickling the sole of the baby's foot or tickling the skin behind its ears. Mothers too should not fall asleep when the baby is sucking. Before each feed, the mother should drink a glass of water for the latter increases the quantity of milk in breast. Moreover, last but not least, the mother should keep herself cheerful before and during feeding time; for the anxiety and worry have a deleterious effect both upon the quality and quantity of milk.

3. Position of Breast and Baby

3. Whatever position is maintained, it should be seen that the nose of the baby is not pressing against the breast, because that interferes with proper breathing of the baby. The mother should hold the nipple between the index and middle finger, slightly pressing the nipple, thus regulating the flow of milk to the child.

4. Care of the Breasts.

Great care must be taken to preserve the nipple from cracking. It is a good rule to wash the breasts once a day with soap and warm water. Too much use of antiseptics is not advis-

able because the baby may be repelled by its odour and taste. The nipple should be wiped with a clean handkerchief dipped in sterile water before each feed. After the feeding is done, the nipple should again be wiped with distilled water and some antiseptic glycerine like boroglycerine be applied to it. The latter application prevents the nipple from getting fissures and cracks. Similarly the mouth and lips of the child also should be wiped with a clean cloth before and after the feed. After each feed the child should either be made to sit for a while or put to bed to prevent regurgitation of milk and other mishaps. Too much fondling of the baby by the sympathetic relations is harmful as it is likely to be followed by vomiting. Last of all, the breast must be completely squeezed of its milk mechanically or with the aid of breast pump after each feed to avoid stagnation of milk and other complications.

5. Effect of Mother's Diet on her Milk

Too much strictness need not be observed as regards mother's diet. Our Indian mothers are rather too conservative in this matter. She should lead an equable life. Good sleep and rest are highly desirable. Light suitable exercise, massage and fresh air are essential. She requires rather excess of calcium, iron and vitamins both for herself as well as for the baby. Thus, she should be encouraged to take plenty of milk, plenty of green vegetables and fresh fruits. Protein diet gives rise to more production of milk while a fatty and carbohydrate diet makes the mothers rather fat and does not effect the production of milk. Most of nursing mothers feel extremely

thirsty and thus they should be freely satisfied unless baby begins to suffer from diarrhoea. Alcoholic drinks are generally harmful.

6. When to Wean the Baby

A baby should be weaned, unless there are some contra-indications, when he is 15 lbs in weight, and this weight the baby usually acquires at the age of 9—12 months.

7. Contra-indications to Breast Feeding

The following maternal conditions make suckling undesirable:—

1. Tuberculosis either active or latent.
2. The occurrence of pregnancy during lactation period diminishes the quantity and quality of milk.
3. Some acute illness like malaria, influenza etc.
4. Heart disease, insanity, diabetes and kidney disease.
5. Some complications during or after delivery like bleeding etc: on the part of the baby, the only contra-indication to breast feeding is deficiency or absence of milk in the breasts. Wasting and indigestion of the infant are very rarely an indication for weaning but rather for the continuation of the breast feeding.

8. Causes of Deficiency of Breast Milk

Briefly speaking, the main cause of deficiency is anaemia combined with grave nutritional disturbance. Modern

mothers have the tendency of taking very little food during meals in order that they should look thin. This kind of starvation should be discouraged. Another rare cause is defective development or too much pressure upon the breast, caused by the modern elastic breast-binders used by fashionable mothers now-a-days. This constant compression of breasts leads to destruction of breast tissues, hence failure of breast milk.

9. Signs of Successful Nursing

The essential thing is progressive increase in weight *i.e.*, baby must put on 5-8 ounces of weight every week. The child should sleep well, cry little and there should be no regurgitation and vomiting after feeds. The bowels must be regular, about two or three times a day, without any pain or excessive flatus.

I sincerely hope that our mothers will realize the importance of Breast Feeding as an ideal method of infant nutrition even now, for it is never too late to mend. All this would lead to lowered infant mortality, better health and general prosperity of the nation. At the same time the mothers should also dispel the erroneous belief in their minds that they run the risk of getting weak by nursing their babies on their breast. Instead, it is as advantageous to themselves as it is to their children.

The first drink that man ever had was Adam's Ale. It is the foremost drink even to-day and ever shall be. It is both divine and democratic. It is a blessing beside which the treasures of Kings pale into insignificance.—THE YOUNG BUILDER.

Honey as a Health Food

HONEY is a sweet viscid substance produced by honey bees from nectar

By
J. DASIAH,
Marthandam, S. Travancore.

sugars have therefore undergone the first step of digestion, honey is often

said to contain predigested sugar and to be more wholesome than cane sugar. So a special claim made for the wholesomeness of honey on this ground is very important. It is generally believed that the energy from sugar is liberated for the use of the body more quickly than from such other fuel foods as starch and fat.

The raw nectar in the blossoms is little more than sweetness and water, plus the essential oils that give each flower its characteristic perfume. Within the hive, the bees transform their chemical structure, producing a substance of nearly equal parts of grape sugar, and fruit sugar or dextrose and levalose. Chemically considered, honey is carbohydrate solution of invert sugar (dextrose and levalose in nearly equal proportion) with dextrin and other substances. Some of them are pollen, ethereal oil, various phosphates, lime and iron. Most of the elements to be found in the human body are present in small proportions.

By analysing honey, it is found that it is a carbohydrate substance containing a mixture of invert sugars averaging approximately 38 to 40 percent levalose, 34 to 35 percent dextrose and from 1 to 10 percent saccharose. The moisture content varies from 14 to 20 per cent and dextrin less than 1 per cent.

The wholesomeness of Honey

That honey is a satisfactory and wholesome food-stuff is attested by its general acceptance as such, wherever and whenever it can be obtained. Special properties and virtues have even been assigned to it in some cases.

Because the chemical change effected by the bee in the sugars of nectar is the same as that effected by digestive ferments and the principal

Everyone knows that eating sugar upsets digestion. For persons suffering from digestive disturbances, honey is a safer form of food than cane sugar. Honey is said to have a mildly laxative effect. The statement is doubtless true, as it is of many other food materials, especially those of vegetable origin. Many misunderstand honey and always say, it causes constipation. But it is not at all true. I have personally tried and found it helping the stomach to move freely. It is wise to use honey rather than using any other forms of sweet. The effect of honey will be more beneficial.

Honey Superior to Sugar

The production of heat means the introduction of strength and energy. The gigantic strength of Hercules was due to the heat obtained from his food transformed into energy. It is of great importance that our food should contain enough calories. Honey is a food more full of energy than sugar. It stands high as a producer of strength. Those who add honey to their daily diet may be assured that they are adding to their capacity to work with brain and hand.

Since honey does not require a change in form before assimilation, unlike cane sugar, it does not tax the digestive organs. Before sugar can be admitted to the blood, it must be in invert sugar form, like the sugars in fruits or honey. Cane sugar, if constantly used, will be only one-sided food, for its sole function is to supply energy to the body in the form of heat. Since the other nutritive elements are lacking in sugar, a continuous use of it brings about unbalancing of the diet and making it deficient in some of the substances which are needed for the building and repair of the body tissues and for the regulation of physiological processes. Eminent men who have carefully studied the effect of sugar on the body, have come to the general conclusion that it is the cause for the dangerous disease, diabetes. Most of them advocate the free use of honey, since it contains other important nutritive substances, protein, iron etc., apart from invert sugar.

Honey forms a very good food for a diabetic patient to whom cane sugar will be a poison. Hence we see, a free use of honey as a daily article of food in the place of cane sugar, not only gives strength and health to the body but also prevents such diseases as diabetes.

Hippocrates and Celsus, as well as

all the physicians, prescribed honey as a laxative and expectorant, and it is still used in folk medicine as a cure for a multitude of ailments.

That such a wholesome food should have been given up as a staple article of diet is a sad commentary on the intelligence of so-called civilized people. The tendency of the urban population to follow the path of least resistance and substitute sugar, which is more easily obtainable and slightly cheaper, is the reason for the neglect of such a wholesome natural food. But the time has come to reinstate honey to its former pre-eminence.

Uses of Honey

In its natural state honey is often served much as jelly, jams, and preserves are, and because of its delicate flavour and its sweet taste it is especially adapted for this purpose. This is only one of its many uses, however, for it can be combined with many other foods to form attractive dishes in great variety and for this reason deservedly ranks as a staple food.

Honey is used both in its natural state and as an ingredient of cooked food. In this country, it is more commonly used uncooked than cooked, and practically all honey is consumed in this way. Honey can be much more commonly used in cookery. Honey can be used in place of sugar for preserving fruits etc.

POTATOES IN THE DIET OF HEALTHY INFANTS

Brugsch recommends the use of potato in the feeding of healthy infants in place of maize or white flour.—'Ueber die Verwendbarkeit der Kartoffelstärke in der Säuglingsnahrung, Munch. Med. Woch, 1935, 13.—THE MEDICAL WORLD.

Village Cleanliness and Health

IN SOUTH INDIA, there are three common kinds of latrines in common use. In many houses a small pit is dug, and the contents are supposed to be emptied daily. Unless great care is exercised in cleaning it daily, it is a very unsatisfactory type. There is an obnoxious smell from the faeces during the whole day and night, and flies collect. Where there is a scavenger service, some people use a small bucket which is emptied once a day, but this is not possible in the villages. The third variety is a kind of pit latrine. Sometimes it is an open pit of some depth with a wooden plank across it. It generally has a wide mouth, because it is impossible to dig it otherwise. This kind breeds flies in great numbers, is accessible to birds and insects, and is offensive to smell and sight. A few rich people make their pits expensive and deep, and cover them with wooden or stone platforms. Besides being costly, these are generally offensive in smell. Decomposition goes on very slowly in such latrines.

The Bore-Hole Latrine

It seems that the bore-hole latrine has been proved to be a most satisfactory one for many parts of India. They are successfully used in Ceylon, the Philippine Islands and Java, in some parts of the Madras Presidency and in other places. The Madura District Board is said to have brought about the installation of about three thousand of them since 1927. The Travancore Department of Public Health has plans for the adoption of the bore-hole latrines in every house

in the Neyyattinkara town and the adjoining pakuthis and to extend them gradually to other parts of Travancore.

The bore-hole latrine combines utility and sanitation and protects health. If properly made, dangerous flies do not go into it. There is no bad smell from it. It hastens decomposition, deodorization and germ-destruction. It is inexpensive and within the reach of the poor family. A good bore-hole latrine can be built for a family or a school at a cost as low as one rupee if the family or the school children and teachers will perform the labour themselves.

The Borer

A round hole in ground from 15 to 20 feet deep and 17 inches in diameter is made with the boring instrument. A cross bar or a long pipe wrench is used for turning the instrument in boring. The boring machine complete should not cost more than Rs. 30.

Introduction of the Borer in the Villages

In order to help the villagers, the borer should be freely loaned to any one who wishes it. After the dawn of consciousness of filth and need of latrines the borer will be in great demand; so that it will have to wait a list of those who want it, and carried back and forth from village to village. Families and schools must be encouraged to do the boring without hiring the labour. If labour is hired, about four men are required, and it would take one or two days' boring according to the softness or hardness of the soil. At the price of labour current in Southern India, the labour may cost Rs. 2 or 3. A wooden frame

guide may be used to steady the instrument. It is put on after the first three feet. It helps towards a straighter hole and saves one labour.

The Stone Slab

When the hole is finished, a slab for the top, called a squatting slab, is necessary. This may be made of reinforced concrete. But this would be too expensive for poor people; so slabs could be made from the granite of local rocks and each will cost only Re. 1. They are made in two half sections which fit together. Thus they are easier and cheaper to make and light to carry. When the stones are laid, a handful of cement should be used to close the joints, making them watertight.

Considerable encouraging needs to be done to ensure that the stone is placed in position as soon as the hole is bored. The soil at the sides of the stone should be heaped up even with the level of the stone and rounded off so that the surface water will run away from the hole, and not into it. A good size for the hole in this slab is 14 inches from front to back, 5 inches broad behind, and 4 inches in front. The hole may be cut in straight lines, or it may be rounded. Opinion is in favour of this smaller size hole, which is suitable to all members of the family including children. The representative of the Rockefeller Foundation says that the foot-rests are not necessary. They have some value towards causing the user to take a right position. If sloped fairly sharply towards the front, the user will be disinclined to turn the wrong way. The Travancore Health Unit in Neyyattinkara Taluq has

invented a reinforced concrete slab which costs Rs. 3. This is made on a wooden mould which causes it to be dished towards the centre, so that all liquid will run into the hole. It is noticeable that, even when one of these latrines is used by many people, it is free from all offensive odours and is aesthetically attractive. The deep hole is dark inside and insects do not enter. When the hole is filled up to near the top, the large blue-bottle-fly may enter and breed there. This and the development of maggots may be prevented by an application of quicklime every ten days. Lime should always be used in latrines after they are filled up within eight feet of the surface.

Experiments indicate that it is safe to bore those latrines 25 feet from a well. But, to be very safe, we would not put them within 75 feet from the well. Do not be disturbed if water is struck near the bottom of the latrine. Water at the bottom of the latrine does no harm; and if it is present, the action is similar to that of the well-known and scientifically sound septic-tank latrine. Sandy soil produces a difficulty. It may be overcome by the use of basket-work stays, pipes or small barrels on top of the other.

Sanitation with Utility

An ordinary family of up to seven persons will use one of those latrines for 1½ to 2 years before it is filled up. If lime is used, the hole may be used to within 2 feet of the surface. Then the slab is removed and hole is filled up with earth, which is slightly mounded above it. The place of the hole is marked by two stakes securely driven. Another hole is now bored

near the first one and the slab is placed over it. After a year the night soil in the first hole will have been completely deodorized and pulverized; and all germs will have been destroyed by the action of bacteria from the soil around the hole. Before the second hole is filled up, the first hole is bored out with the same borer. This is very easy boring and will require little labour. The material will be found to be dark in colour, of convenient consistency to spread on the land and an excellent fertilizer.

Latrines yield profit

No country more than India needs manure to fertilize the soil. These

latrines can thus be an economic asset, and will yield valuable manure worth more than the worth of the latrines. And as the same hole may be used in future years, the profit will be greater still, as expenses of construction do not occur any more.

When the second hole is filled up, it is closed in the way described, and the slab is put back over the first hole which has now been emptied of its contents. So these two holes may be used indefinitely.

Reference:—

Allahabad Farmer, March 1933, published by the Agricultural Institute, Allahabad, U. P.

Health News and Notes

The Population Problem. — At Shrewsbury last year the birth-rate (12.8) and the death-rate (12.6) were for the first time almost equal and practically cancelled each other out. Commenting on this fact, Dr. A. D. Symons, M. O. H. suggests that before long the population problem must become a matter of national concern and probably of Government action. He writes:—"It is said of us as a race that we do not upset ourselves unduly until a crisis appears, even if we see it on its way, but that when it is right on us, we put our backs to the wall, tighten our belts, fight with determination and some how muddle through. At present we appear to be entering an era which has been described as the "Twilight of parenthood" and whether the restriction of families continues or not is a matter which the future will reveal. There is little

doubt, however, that as long as we maintain a stationary population, few in this crowded island will be perturbed, but when it begins to fall, alarm will slowly arise and even greater attention will be paid to maternity and child welfare services in order to preserve those, some of whom may perhaps be born by mistake whether legitimate or illegitimate, or to encourage parents to have more than the present fashionable, meagre and only child. Birth control when properly applied by sensible people with a considered plan is not to be decried, but when young married couples are tempted by contraceptive literature, by temptations to squander their money on pleasures and amusements and by the erection of those pseudo homes in the form of flats, it is little wonder that they evade the responsibilities and expenses of the rearing of

children, when to avoid them is so attractive and cheap. Family limitation is not universal, but is unequal among the various social groups and we require some reorientation. If the great middle classes are the backbone of this country, they should be encouraged by taxation relief or by more generous family allowances to produce their kind and the same applies to very many decent clean-living members of the so-called working classes; but when one reaches the social problem group, made up of the feckless and the reckless, the drunkards and the defectives, then steps should be taken to ensure that they cease to continue to produce child after child and drain the resources provided by the State for social services, which could be so much better expended for the benefit of those who deserve them".—*The Medical Officer*, 10th Aug. '35, Page 59.

Eye Strain.—Among over 10,000 employees in factories and commercial houses examined by the Life Extension Institute, 53 per cent had uncorrected faulty vision. The Institute, in its examination of 675 employees in the Underwood Typewriter Company—individuals engaged in close work, found 58 per cent in need of correction by glasses. Fisk reports the condition of lighting in 446 plants as follows: excellent 8.7 per cent; good, 32.0 per cent; fair, 29.1 per cent; poor, 18.8 per cent; very poor, 3.5 per cent; partly good and partly poor, 7.8 per cent. He states that the Industrial Commission of Pennsylvania reported that last year 18 persons lost both eyes in industrial accidents,

the compensation totalling \$63,731; 652 workmen lost one eye, the compensation totalling \$826,731.

Dr. Fisk adduces statistics to show how corrected eye-sight increased the productivity 28 per cent in the Whiting-Davis Co., where a large amount of close, fine work is done; he also points out the need of providing adequate illumination for the entire industry, and shows how by the use of safety goggles the eye accidents in the American Locomotive Co. has been reduced from 38.9 per 1,000 of full-time men per year during 1910-13, to 15.7 in 1915 and the number of eyes lost during the same period from 10.5 to 2.—*A Half century of Public Health. Published by the American Public Health Association.*

Water Waste and Economy.—Are there any limits to the folly of local authorities? Sir George Newman in his annual reports regularly exposed some examples, though we imagined the species who deliberately risked the health of the people for the sake of economy was extinct. One reads of such things in France but an occurrence in Scotland saves us from any satisfaction that we are not as our neighbours. It is in the very far North (if that counts for anything), that a Burgh Council has resolved to disuse an expensive water-purifying plant and revert to a supply from an obviously contaminated source. Despite the protests of their M.O., the complaints of the local hospital staff of the effects on the patients and the serious admonition of the Health Department, they persist in their pig-headed policy. Looking at it in the light of prudence rather than parsimony, most areas go

to the other extreme in allowing water waste. A rural M. O. H. was lately telling the Institute of Sanitary Engineers how much it exercises foreign visitors to see our prodigal use of drinking water for every domestic purpose, even car-washing and garden watering! Admitting the objections to a dual supply, he hinted at a way of economising potable water by remarking that the effluents from sewage works compared not unfavourably with the water in the "week-end bathing pools of road-side hostels." He can hardly have been thinking of the Metropolis, where in spite of the colossal outlay on sewage, the Thames is again becoming as Disraeli called it in 1855, "A Stygian Lake".—*From The Medical World of 13th Sep. '35.*

The Sun and His Seven Horses.

The mythology of the Sun's daily travel in a Chariot of seven horses is attempted to be scientifically explained by Dr. P. M. Mehta, M.D., M.S., F.C.P.S., Chief Medical Officer, Nawanagar State, in these words:—

"In India, the Sun is worshipped since the Vedic times; in the Yajur Veda, the Sun is described as the Atma of all that moves and of all that does not move. In our mythology, the Sun is depicted as riding in a one-wheeled chariot driven on the supportless inane by a charioteer who has no legs and to which are yoked seven horses and the reins, which control them, are live serpents. By a little stretch of imagination we can interpret this legendary description in terms of modern science. The seven horses are the seven kinds of rays which form the visible portion

of the Solar Spectrum. A serpentine motion is imparted to them by the peculiar reins which the limbless charioteer but ill controls them. This suggests the unequal wave lengths of the radiations which, however, travel with the same velocity. The horses, tied to the same yoke, must maintain a uniform speed despite their unequal strides, their frequency varying in inverse proportion to their length. One wheel suggests the incredible velocity of the solar radiations and the want of support is suggestive of their passage through the immense ethereal ocean".

Again, as regards Sun-Worship in Ancient India, he observes:—

"I am not sure how heliotherapy was practised in India. But there are certain ceremonial practices enjoined by the Shastras which may be construed as having a therapeutic origin. The Sun-worshipper is directed to stand facing the Sun after his ablutions with only a loin cloth on, to stretch his hands so as to shade the head and then offer his prayers. He has then to veer round so as to expose his side to the rays of the Sun and offer another set of prayers and so on till all the four sides are by turn insolated. Many wholesome practices are in this way enjoined in the garb of religion. In Sanskrit literature there are unmistakable references to cures of leprosy and skin affections by exposure to sun's rays".—*From Health and Happiness Vol. XXIII, No. 8, Page 179.*

Hot Baths add to the Efficiency of Quinine.—In persons suffering from chronic, malarial infection, the parasites which give rise to the

disease are sometimes absent from the blood, although they are always present during an acute attack. When not to be found in the blood, the parasites are believed to be hiding in the spleen and other vascular organs. The effect of a hot bath is to bring the parasites out into the circulation, the result of which is the occurrence of a chill. This fact renders hot baths valuable as an aid in combating malarial fever. In connection with the hot baths, small doses of quinine may succeed in destroying the parasites, when, without the hot baths, large doses would prove inefficient.—*Good Health* (U. S. A.)

School Desks and Posture.—In Sheffield schools, desks are mostly of the dual type and, although there is a number of sizes of desks, it is not possible to see that every child gets adequately fitted. Dr. G. E. Saint Clair Stockwell, S. M. O., writes: "It is still the principle to fit the child to the desk, instead of the desk to the child, with consequent undoing of much of the benefit of physical instruction. Every child should be fitted by at least four measurements:—1. Height of seat from floor—feet should reach the floor comfortably. 2. Depth of seat from back to front. This should bear a relationship to the length of thigh when seated. 3. Position of back rest. This should meet the back at a correct point for support. 4. Height of writing surface from floor should be so arranged that, when the other points have been adjusted the child may write in a comfortable position." Dr. Stockwell adds that a wrong desk induces bad posture and tends to produce various deformities.—*The Medical Officer*.

Gauges of Civilization.—When the number of American women giving birth to children, and dying in the course of such childbirth, has been reduced to something within reason, and when a proportionate success shall have been achieved in other countries, there will be, presumably, a pretty high type of civilization in the world.

It may be assumed that a world which will not tolerate high maternal mortality will not tolerate war, for the spirit that until now has condoned the sacrifice of mothers on a large scale is essentially the same spirit that sends boys to the shambles without a qualm. The truth is that a low type of civilization cares less about either its young mother or its young manhood than it professes to do.

If mothers are worth saving, men's lives are precious.

These things serve as indices of progress.

In the meantime, let less wonderment be expressed at our high maternal mortality. — *From Medical Times of Sep. '35 page 293.*

The Housing Problem.—The three most important conditions in connection with the housing problem are:—

- (1) The high initial cost of even the smallest family dwelling which will satisfy modern standards.
- (2) The permanent, and immovable character of houses when erected.
- (3) The custom by which the majority of consumers of this particular commodity borrow their house, instead of buying it, paying for it a periodical rent.—*Encyclopædia Britannica.*—*The Young Builder.*

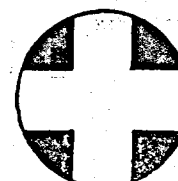
Help! help!!- can YOU answer the call



Many a man to his utter despair failed to answer the agonising call for help when a dear one was either bitten by a snake, run over by a motor car or enveloped by a fire simply because he did not know what to do. Perhaps his inability to answer the call meant the loss of life.

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Know Thyself



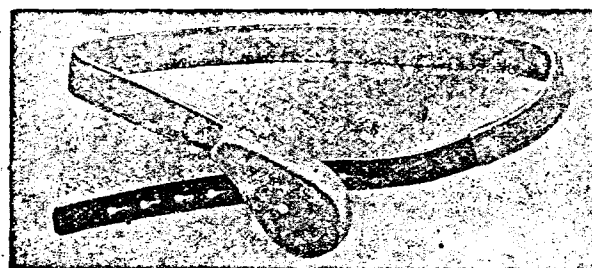
You may know quite a lot about the inner wonders of the electric motor or the wireless mechanism, but what do you really know about the far more wonderful mechanism of your own inner being?

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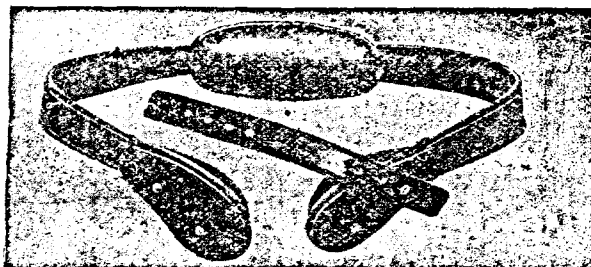
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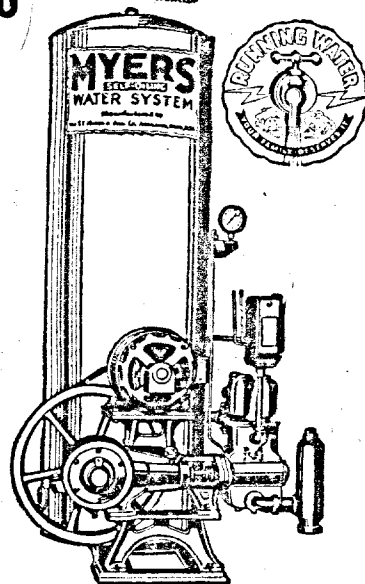
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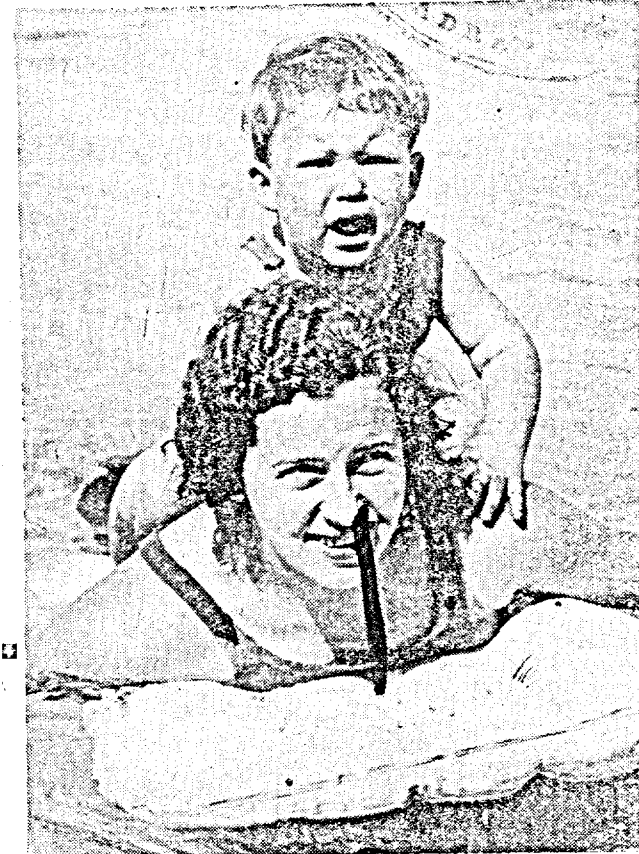
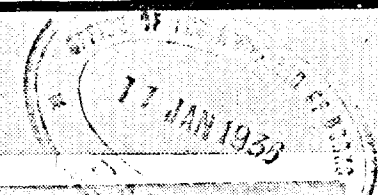
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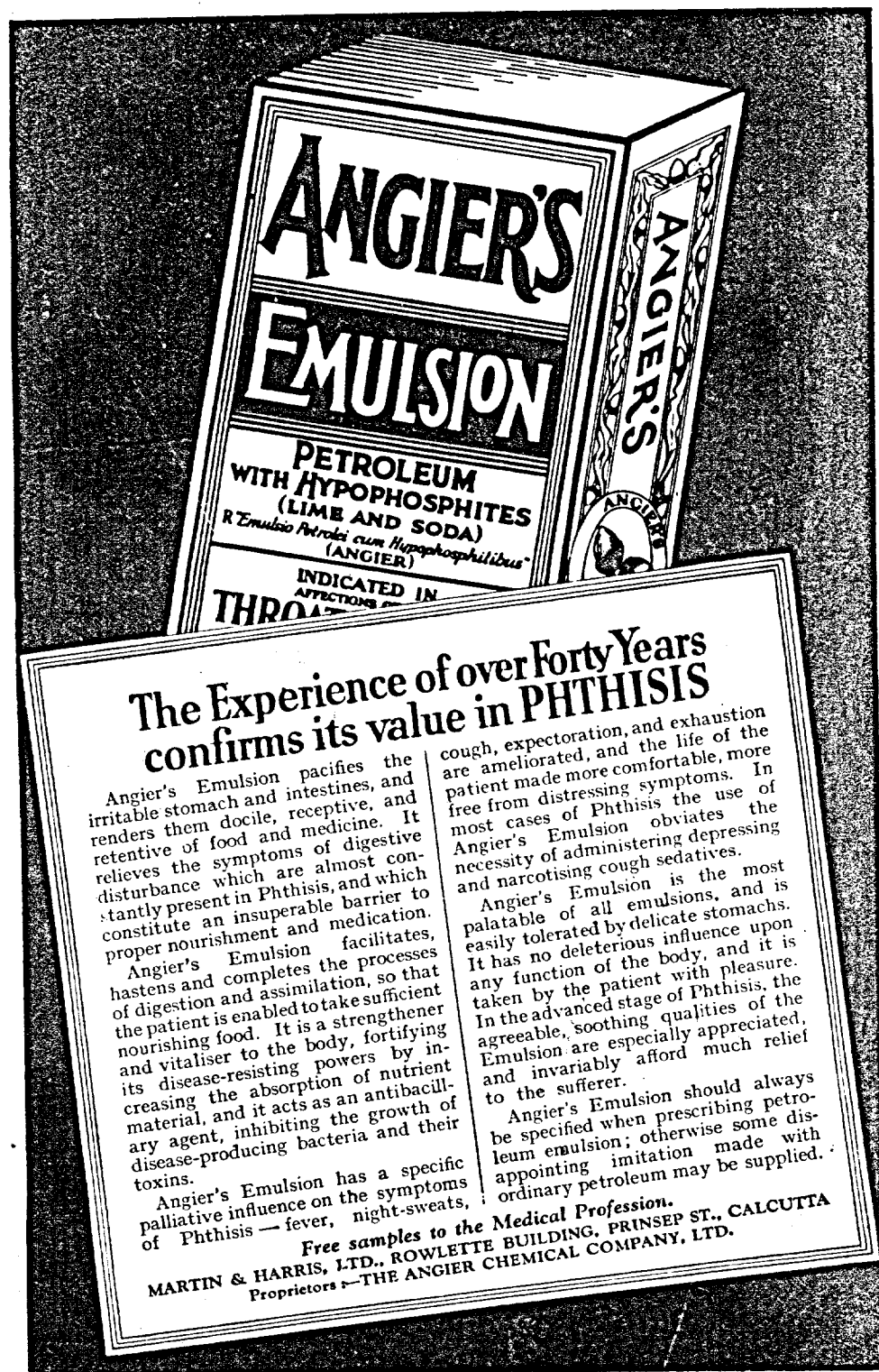
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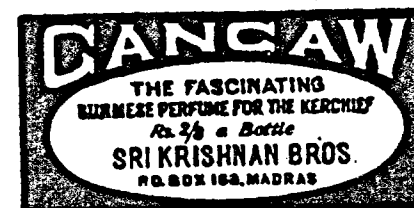
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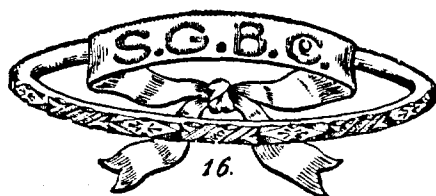
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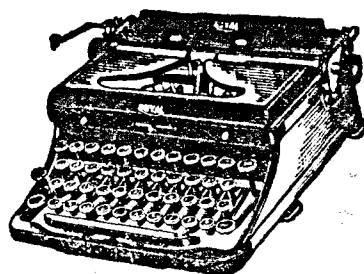
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EDITORIAL

Alcohol and Tobacco

ALCOHOL and Tobacco are twin brothers, both evil genii, playing considerable havoc on humanity. Modern civilization has considered them to be necessary evils and modern States, instead of driving these evil spirits away, try to derive revenue out of them. At one time, scientists came to regard alcohol as food. Their contention was that when alcohol was administered in small doses and at not too frequent intervals, it was oxidised and taken into the system, producing heat and energy just as real food does. But this myth has since been exploded. For, it has been discovered that while real food strengthens the body and leaves no after-effects except creating hunger

at the proper hour for next meal, alcohol leaves the system in a state of depression even when but small quantities are taken. In all medical books, alcohol is described as a poison and this definition exactly suits the cases. There are antidotes

for alcoholic poisoning, but there are none for milk, bread, etc. The system takes only as much of them as it wants and rejects the rest. Alcohol over-excites the heart, it stabs the kidneys; it causes the liver to enlarge, it affects the respiration and causes dimness of sight. It lessens the growth of healthy flesh, tissues and bones. It affects the joints and thus causes gout. It weakens the whole



*Satan rejoices when he sees men
hopelessly entangled by drink.*

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system and leaves it a prey to disease. In Japan, the only form of alcoholic beverage used by the people is a very mild rice-wine known as *sake*. It would require a great quantity of this beverage to intoxicate one. Beer, liquor and wines such as are known to the modern world are seldom found in Japan to-day, outside of a few cities where foreigners congregate and live. In our own country, in ancient times, the Aryans used the juice of the *Soma* plant as a drink. But even then certain restrictions were placed on the consumer. "He who has food enough to support his dependents for three years or more has a right to drink *Soma*." "The twice-born man who drinks *Soma* when his wealth is much less than this (amount) does not get the reward (that belongs) to it, even if he has drunk *Soma* before."—so has Manu ordained. *Soma* is drunk only at the first sacrifice and should not be repeated after it. It was a drink only for the wealthy who should perform some sacrifices before *Soma* is allowed to be taken. But to-day, the drink evil has spread to every nook and corner of the country. Temperance Propaganda and other means of checking the evil are mere eye-washes. Prohibition is the only remedy to check this vice. But prohibition in India means loss of revenue. Recently, the Hon'ble the Revenue Member of the Government of Madras deplored the fast-depleting revenues under 'Excise'. At the meeting of the Legislative Council held on the 20th October '35, the Hon'ble member observed: "It must be obvious to anyone who has studied the revenue of this Province for the last four or five years that

these two departments, (Excise and Land Revenue), which, as I have said, bring in between them 80 to 85 % of our total revenues, have ceased to be expanding departments". Therefore, he thought it necessary to tap other sources of Revenue, for instance, "Tobacco".

Tobacco, though not as dangerous as alcohol, is not intended to be absorbed into the human system. The West Indian who was the grower of the weed, used it only for ceremonial purposes. It was left for the white man to discover that tobacco was to be smoked almost continuously during every day in the year. Like all true narcotics, tobacco, when used persistently seeks out the weakest portions of the body and renders them weaker. The will-power becomes less and less as the existence of the tobacco habit lengthens. The heart is affected and palpitation or worse trouble follows. One may smoke for years without discovering that he has done himself any harm. But let him try to break off the habit now. He finds that he cannot sleep; his nerves have gone to pieces, he is absolutely wretched until he takes up with tobacco again. And if he takes it up again, he shortens the distance between himself and the grave".

The evil of tobacco has spread into Eastern countries. In Japan the American Cigarette has crept in. In India, even the high caste people have begun to chew tobacco and smoke cigarette. It is all done in the name of fashion and civilization.

The Tobacco Bill recently introduced in the Madras Legislative Council, though a revenue measure, may yet prove to be a health measure. The

License fee sought to be levied on tobacco may increase its price and thereby prevent poor people from resorting to it as frequently as before. The result of the legislation, the Revenue member observed, would be that 'where now a person going into the shop might get 12 beedies, say for a pice, he will get only eleven'. This is a good gain from a health point of view, as the smoker would be freed from so much of poison that may be contained in a single beedi for his lifetime. We thank the Government for this small mercy. We heartily yearn for the day when alcohol and tobacco are altogether banished from this land of sages and seers but we are afraid the day will be far remote.

Food and Health

The circumstances under which We Live

By

Dr. N. SEN.

Resident Medical Officer,
P. O. Sailo-Jharpara, Cuttack.

(Continued from Page 194, October '35 issue.)

Vitamins and poisons in the food

IV

Vitamin A.—The influence of Vitamin A is essential for the growth of young animals. If it is deficient, then the growth is checked and the animal becomes more susceptible to infectious diseases. It has been found that those of stunted growth for deficiency of Vitamin A cannot be compensated by administration of increased dose of Vitamin A in old age. Its deficiency

also produces night-blindness and many other eye diseases. It helps dentition and its deficiency causes chronic enlargement of tonsils.

It is present in milk, butter, yellow of egg, green vegetables and cod-liver-oil. It is also present in meat to a little amount but is more in liver, heart etc. It is also present in certain pulses. It is destroyed if boiled more than the boiling of water but is not destroyed by the addition of Sod. Bicarb.

Vitamin B₁.—The physiological importance of Vitamin B₁, which is present in rice polishings, cereals and yeasts has very commonly become known to almost all. We have said previously that Beri-beri occurs specially amongst those who are eaters of polished rice and white-bread.

It may be remembered that during the war, the troops in Dardanelles and Mesopotamia suffered much from this disease but the Indian troops who lived only on whole-wheat bread and Dhal did not have the disease. Apart from this, a paragraph may be quoted here,—“It may be regarded as firmly established that Vitamin B₁ in addition to affording protection against Beri-beri, is an essential factor for the normal growth of young rats and for the maintenance of normal weight and health of the adults.” When the depletion (of Vit. B₁) is complete the animals decline in weight and symptoms of deficiency disease begin to appear.

It has been found that in advanced cases of deficiency in young rats, their hind legs are almost paralysed and they shuffle along with difficulty.

It is generally present in abundance in yeast, wheat-germ, yeast extract,

34
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pea-nut, brans etc., and in lesser quantity in egg yolk, liver, heart, brain, whole meal wheat, whole rice, maize, whole barley, oat-meal, root vegetables etc.

Vitamin B₂.—Pellagra is a disease characterised by a chronic erythematous eruption, digestive disturbances, and nervous and mental symptoms. It was mysterious until very recently.

Those yielding Vit. B₁ also contain Vit. B₂. Tomato contains a little of this vitamin.

Vitamin C.—(anti-scorbutic vitamin.) Besides losing weight the patient with deficiency of Vit. C develops pain in knee joints and gums; in advanced cases teeth fall out and bleeding is very common from gums, petechial haemorrhage around hair follicles and epistaxis etc., are also detected commonly. In bad cases there may be severe internal haemorrhage resulting in death.

It is present in abundance in orange, lemons, tomato, raw-green vegetables, grape fruits, carrots, raw liver, and in less quantity in apples, banana, vegetables cooked for a short time without Soda Bicarb, milk un-boiled or boiled for a very short time.

So, it is quite clear that in the course of preparation of our daily diet, we destroy the vitamin contents of our food. Dried fruits, dried vegetables, greens cooked for a long time or doubly, or cooked with soda, jam, marmalade, fruit jellies, twice heated milk, milk boiled with soda or taken with soda citrate contain no vitamin C.

Vitamin D.—Though it resembles in every way Vit. A, still its special necessity is during the pregnancy of the mother, both for herself and the

child. After the delivery also, it is required equally for both.

Vitamin E.—It was only in 1922 that experiment has established that a vitamin was necessary for reproduction and this was named as vitamin E. It is present in large quantities in wheat embryo. It has also been found by experiment that sterility in men is produced by the lack of this vitamin while its deficiency in women results in failure in child bearing and resorption of the fetus in uterus. Though diseases have their own responsibilities, still the lack of Vit. E is not negligible which has been proved by the fact that sterility in men produced by the deficiency of Vit. E cannot be cured by subsequent administration of the same, whereas sterility caused by any disease is curable.

v

We may now consider the question of certain dangerous poisons which may contaminate our daily food. They may mainly be classified into 4 groups *e.g.*

1. Ptomaine poisoning.
2. Botulism.
3. Foods dangerous in certain states.
4. Metallic poisons in food.

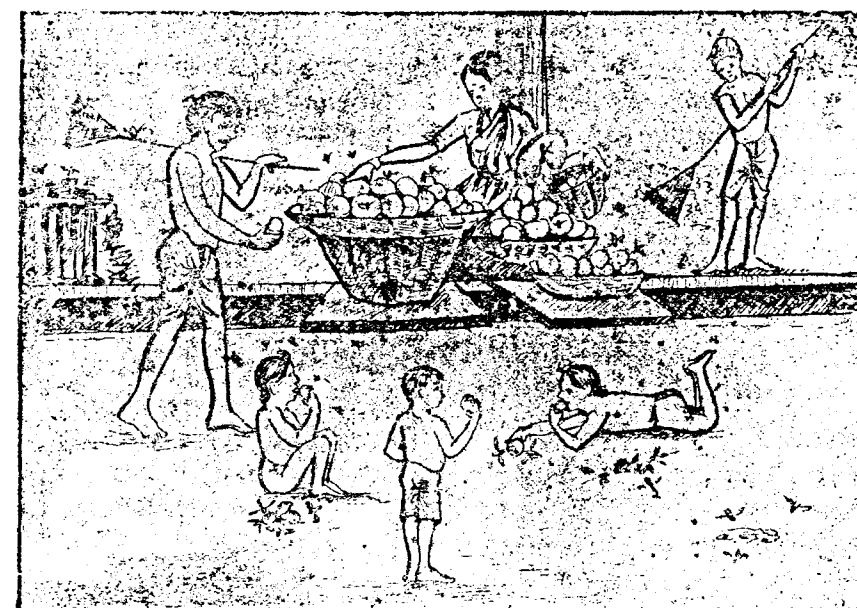
Ptomaine is a substance produced by bacteria of decay in rotting things. If food with these bacilli is cooked, the bacilli die but their toxins remain. If foods are taken uncooked which have already been infected by these poisons, a man is sure to fall a victim to them. The symptoms which are generally found resemble cholera very much. If neglected it is equally fatal like

cholera. But foods taken cooked though infected by the poison do not produce so fatal symptoms. These bacilli generally grow on meat, fish etc.; hence vegetarians are almost always safe from such infections.

Botulism is the more serious type but very fortunately it is rare. It is due to bacillus *Botulinus*. The toxin is so active that even if a piece of food containing this bacillus is taken in the mouth and spat out immediately,

not been detected in India perhaps. In England there was only one case. It is only in America that it plays its part from time to time.

Improperly pasteurised milk may contain T. B. germs and this is one way by which the children get infected with tuberculosis. Oysters may contain Typhoid bacilli by lying in estuaries that contain human sewage. Green vegetables may carry the eggs of parasitic worms. Meat and fish and other



Food for children, exposed and unhealthy.

it ingests a fatal dose. An English author estimated that about sixty pounds of this toxin are enough to kill the entire human race. It is providential perhaps that these bacilli die by cooking or by coming in contact with oxygen. So, it is tinned or bottled things packed unhygienically or carelessly, which carry these toxins. The use of tinned or bottled fishes, meat etc., to simplify our process of preparing daily diet, is nothing but to invite our own ruin. Botulism has

things which are exposed to air for sale may be contaminated by flies or other bacteria. Cooked food ready for use but exposed in times of Cholera or Bacillary Dysentery or Typhoid may be contaminated by flies. So it is the safest and best method to take always fresh and early cooked things not contaminated by flies.

Metallic poisons in food may occur only by adulteration or mis-handling or inadequate hygienic preparations in preparing the food.

Then there are certain drugs which people use daily without knowing whether they are good or bad. These are smoking, drinking liquors or opium or cocaine habits. The difference between a smoker's lungs and a non-smoker's one will tell the bad effects of smoking. The frequency of liver disorders and liver abscesses and mental derangements amongst drinkers is sufficient reason for its condemnation. It is perhaps needless to say anything regarding the bad effects of opium and cocaine habits.

Tea is another thing used by almost all the civilised world. There had been much discussion regarding its good and bad effects. Tea is taken not as food generally but as a stimu-

lating delicious drink at a certain part of the day. It has its bad effects such as loss of appetite, constipation etc., but its invigorating substance caffeine is known to the medical world as one of the many heart tonics. What is bad in tea is tannin. But if tea leaves are not allowed to infuse in hot water for more than five minutes tannin does not liberate itself from the tea; it takes only its invigorating elements thereby. Moreover, if by chance any tannin passes in the cups it is destroyed by the addition of milk, sugar or salt etc. Tea prepared at houses and taken is not really bad but that prepared in cheap hotels and restaurants are injurious to health. Similar is the case with coffee.

Tiredness in Childhood

"TIRES so easily" is a common

K. L. NARAYANA RAO, M.B.B.S.

By

Madras.

complaint made by

parents with regard to

their children. Even under 4 years of age "tiredness" begins to manifest itself as a symptom which attracts a parent's attention as something abnormal. Sometimes it is judged by looks: "the child looks so tired"; but more often it is from the child's own complaints. He has become listless and unwilling to make exertion, or if he makes it, complains much sooner than is natural that he wants to rest. As a normal occurrence, no doubt, tiredness is Nature's warning signal of the need for rest after fatigue from activity, and the changes in the muscle and in nerve

cells which are induced by fatigue

require a certain

period of rest for

their disappearance. If activity is repeated without proper rest, more rapid exhaustion results and eventually there may be complete exhaustion with inability to act until a proper rest has been allowed.

School in Relation to Tiredness

In 10 per cent of cases complaining "tiredness," the school life is too strenuous for the child, and before the term has progressed far, the child is already showing paleness, loss of weight, lessening of mental concentration and by the end of the term the child is definitely a less well child than at the beginning. In some

schools there is not sufficient rest between the activities in the day time; moreover the extremely important hours of sleep, the great recuperative, instead of being increased to repair the effects of a mentally and physically strenuous day, are actually too often curtailed. In day-school regime there is another factor which contributes to the daily fatigue, namely, the daily nervous excitement and fluster of going off to school, and the journey to and from school. Sometimes the walk is too long; a journey by bus or tram or train, perhaps involving a change from one vehicle to another, and often associated with an amount of flurry and nervous tension, are definitely fatiguing and contribute to the complaint of seemingly unnatural tiredness.

Nervous Temperament

A child of nervous temperament is more readily fatigued than the more stolid child. But it might be argued that indication of nervous instability may be the result rather than the cause of the repeated fatigue of which tiredness is a symptom. Undoubtedly this is so in some cases, and there may also be a vicious circle, the nervous temperament favouring quick fatigue, and the repeated fatigue increasing nervous instability. In these the sensation of "tiredness" upon seemingly slight cause is frequent.

"Toxic" Causes

The most frequent cause of morbid tiredness in children is an unhealthy gastro-intestinal condition, whether chronic indigestion or constipation or both. A simple "tonic" is not the

remedy for a patient whose one need is perhaps careful modification of the details of diet, or perhaps some daily laxative. It is also a common complaint in children with unhealthy throats, particularly septic tonsils.

Anaemia

Any condition which involves a supply of blood poor in quantity would seem from clinical observation to predispose to the sensation of tiredness. A child with poor colour, "pale and dark under the eyes", suggesting anaemia, easily complains of unnatural tiredness. Sometimes it may be associated with an acute illness, e.g., after an attack of pneumonia, or may be due to heart disease congenital or acquired.

Mechanical Causes

Girls at puberty sometimes complain of this symptom, due to the rapid development of puberty, the extra call upon muscular exertion, involved by the carrying of all this rapidly increased weight. To a less extent boys are similarly affected with the onset of puberty. There is rapid increase in stature and weight at puberty which involves extra exertion. Another factor which determines the symptom of tiredness is obesity. The addition of many pounds above the normal average of weight must add greatly to the work done by these children in merely walking about, and still more in any exercise, such as drill or dancing or the ordinary school games.

[From an article by G. F. Still, M.D. in *The Practitioner*, April '35.]

Decay of Teeth and its Relation to Diet

No serious affection of the teeth can be described in a general article of this kind. But there are many minor

points about the Decay of Teeth and its relation to Diet which can reasonably be written about with advantage.

Perhaps the most common of the trouble of the teeth is the Caries (Decay of Teeth). It is more or less a disease of civilisation. Although it existed among the ancients also, for there are traces of this disease found in ancient skulls, and mention has been made in ancient Hindu Medicine, of fillings of carious teeth with silver and gold, presumably for the decay of teeth, yet its prevalence at that distant age was nothing compared to that at the present day. It is further shown by the alarming extent of the prevalence of this disease among the American and European school children, 75—95 per cent of whom are found to be suffering from caries of the teeth.

To what extent the decay of teeth is prevalent in India could not be ascertained, for there are no records available owing to much backwardness of Dental Science in this country. As far as my experience goes in this line, I can safely put down the extent of this disease among Indian children to between 25—50 per cent.

Decay of teeth is more frequent in females than in males: and is more prevalent during the period of adolescence than in adult age.

The commencement of the process of caries makes itself manifest by the loss of polish and translucency of the

By

S. K. GUPTA,

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enamel over the affected spot. As it advances, a white spot appears at the affected place, and then after

some time a cavity appears on the spot owing to the washing away of the softened enamel—the uppermost shining layer of the tooth. Progressing still further it attacks the dentine a spongy-like substance under the enamel of the tooth—which first softens under the action of the acids (most probably Lactic Acid) and then undergoes disintegration and liquifaction, leaving a large cavity in the tooth.

The causes favouring the decay of teeth are many. Teeth with weak structure are more prone to caries than well-formed teeth. The acid and mucoid condition of the saliva due to Dyspepsia, febrile conditions and pregnancy, is a potent cause of caries.

The food which has the tendency to lodge on teeth surfaces and undergo fermentation is the kind that best promotes the inception of caries. Hence the carbohydrate food is more likely to cause caries than the proteid or meat diet.

Another fact of extreme importance is the vast amount of damage which results in the decay of teeth from the eating of too liberal quantities of manufactured sugar.

Of the three varieties (Sugar, Starch and Cellulose) of carbohydrates, sugar is the most injurious to the teeth for when acted upon by the saliva and micro-organisms of the mouth it produces acids, which are responsible for the process of caries.

Not only that it lodges there in between the teeth, but it helps other food-stuffs to lodge there and to undergo acid production. Starch though distinctly harmful is less so than sugar. Hence the diet consisting of biscuits, soft bread, porridge, cakes etc., is decidedly harmful to the teeth, especially when they form the last part of one's meal as is usually the case with fashionable dinners. Cellulose is the least harmful to the teeth of all the carbohydrates, for it is least acted upon by the saliva, and it does not stick to the teeth. In fact it exerts a beneficial effect upon the teeth for by calling forth the mechanism of mastication, it exercises the detergent or cleaning action on the teeth. Hence the fibrous and acid foodstuffs such as vegetables and fruits are beneficial to the teeth especially when they form the last part of one's meal. Acid-foods such as fruits prevent the activity of the acid-producing bacteria of the mouth. Hence fruits taken as the last part of the meals, are a great preventive against caries. Meat or proteid diet is beneficial to the teeth for by virtue of its fibrous element, it scrubs the teeth clean, and when acted upon by the saliva it produces alkalies and not acids.

The action of fat on the teeth is quite negligible, for it undergoes no change in the mouth.

From this short discussion of the

diet and their influence on the welfare of the teeth and the mouth, one point stands clear, and that is "fruits must form the last part of the meals".

The preventive treatment for the decay of teeth is that one should take care in choosing a suitable diet consisting of vegetables, fruits and not carbohydrates and the sticky things. It is believed that the present day cooking and the mad rush of modern civilisation are responsible for the great prevalence of the caries of teeth. The present day culinary art needs the food stuff to be free from fibrous parts, and so prepares it that the cooked food is liable to stick on to and in between the teeth, and undergo acid fermentation in the mouth, thus starting the process of caries.

The remedial treatment of the decayed teeth is a purely Dental Treatment. This treatment consists of the application of medicines, cleaning of the cavity, devitalising the pulp of the affected tooth and then filling it with any filling material—Dental cement, silver or gold. It would be a better advice to the readers to consult any qualified and experienced Dental Surgeon to get rid of caries and other Dental diseases, if any.

Dirty teeth result in shaky health and good pearl-like teeth mean excellent health. So take care of your teeth and your health will take care of itself.

ABDOMEN is the carburettor of the human motor. It contains all the subtle devices for the production of energy from food. Nature has provided a strong protective cover for the internal organs of digestion and elimination by three layers of skin and muscles—the peritoneum, abdominal, rectii and other muscles, and skins with layers of fascia in between them. In a man of average health this cover is strong enough to protect the delicate internal organs while an unhealthy one allows fat to accumulate and the abdomen to sag. A fallen belly allows the organs to hang loosely and thereby renders them susceptible to shocks and diseases.

Obesity starts in the abdomen. Accumulation of fat on the abdominal walls leads to fatty degeneration of the heart. A big paunch is unsightly and disease breeding. So careful maintenance of a perfect abdomen is as essential as life. Indians being, in large, consumers of carbohydrates easily acquire big bellies as they advance in age. Even our wrestlers while they possess steely pectorals and biceps devote very little attention to the muscles of the abdomen and the result is a rotund belly. Extra exercises for the abdomen besides toughening the abdominal rectii keep the diges-

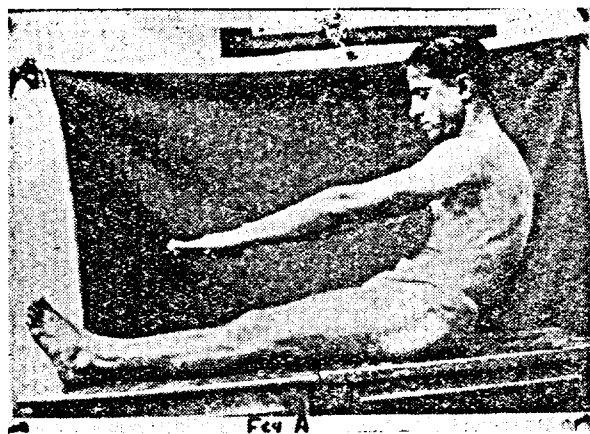


Fig. A.

Culture of, the Abdomen

By

R. RAJAGOPALAN, B.A.

Ootacamund.

tive organs in position and protect them from any external injury.

There are various exercises for the upkeep of the abdomen. I will concentrate on a few that have direct influence over the abdominal rectii.

Fig. A: Lie flat on your back keeping the legs straight and stiff and the arms in parallel to the body line.

Slowly rise up

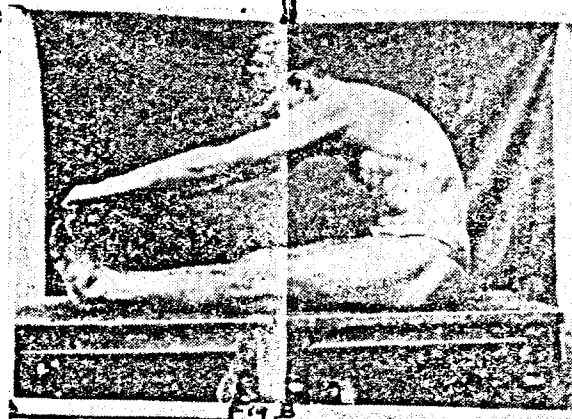


Fig. B.

to a half sitting position taking care not to shift the legs from their original position. Recover and repeat. While performing the exercise concentrate on the abdominal muscles alone.

This exercise does not give enough strain to the lowermost abdomen. So with a little alteration the second exercise must be performed.

Fig. B: Lying on the back as before lock

THE DIET OF INDIA

Major-General Sir John Megaw, K.C.I.E., I.M.S., recently Director General, Indian Medical Service, published in 1933 a brochure on "Public Health Aspects of Village Life in India," in which he said, "Taking India as a whole the dispensary doctors regard 39 per cent of the people as being well nourished, 41 per cent poorly nourished, and 20 per cent as very badly nourished... Although there are a fair number of reports of insufficiency of food it is the quality of the diet that is at fault rather than the quantities. animal proteins in the form of meat or milk are taken in very small quantities; fruits and vegetables are seriously insufficient in most villages at certain seasons of the year. The amount of milk which is consumed is surprisingly small except in the Punjab... It is evident that the supply of available proteins, fats and some of the vitamins is seriously inadequate except in a few favoured localities."

up your hands just above the head and get up without moving or bending the legs, to a sitting position and touch the toes with the locked fists. Repeat a number of times.

Massage the abdomen well and softly. Then draw in the stomach wall and bulge out; draw in and bulge out a number of times.

Fig. C: Draw the stomach wall in. Concentrate on the abdominal rectii and project it as shown in the figure. Relax and contract again. Perform this three or four times.

The above three exercises added to the daily round of dhands and bai-thaks produce the most desired effect on the muscles of the body.

The effects of exercise to the abdomen are: Constipation and indigestion will vanish. The last exercise gives a thorough massage to the internal organs and glands.

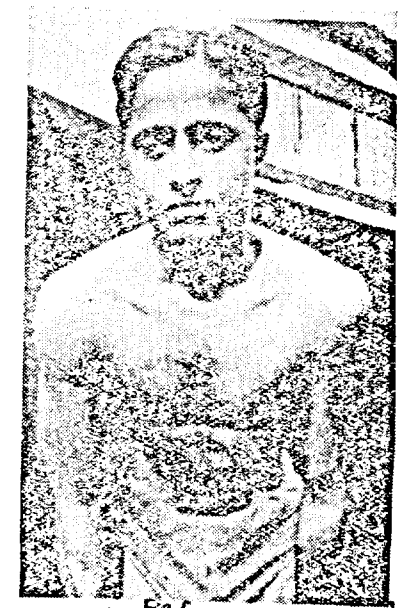


Fig. C.

Motherhood and Health

By

DR. SHRI RAM

Scout Organizer, Srinagar, Kashmir.

1. The degradation through which the women of the human race have passed must cease.

2. The stain of that degradation must be wiped away.

3. Children must be born in joy; the mother must be surrounded with love and protection, with harmony, and beauty and with peace. She needs the best that civilization can provide for her.

4. No offering is too great, when made in recognition of the service which she renders to the race as a mother of mankind.

5. Slums and over-crowded areas, ill-ventilated rooms, ugly surroundings, vice, self indulgence, interference by the husband, and lack of cleanliness and air make motherhood a ghastly tragedy for thousands of women of our race.

6. Fit dwelling places must be prepared for the sacrament of birth.

7. If the bodies of the expectant mothers could be cleaned of latent disease, their feelings purified and their minds turned to the contemplation of the beautiful, in one generation alone, a race of men, godlike in health, in strength and in beauty, would appear.

8. All the material seeds of sickness, of misery and of shame, which develop after birth, are sown during the prenatal period.

9. If every organised society, secular and sacred, religious and profane, would devote a little of its time,

energy and funds to this great cause of motherhood, the future of race would be changed as by a miracle.

10. If medical societies and philanthropic institutions could be brought to realise and recognise the urgency of this need, a magnificent future for the race could be assured. The physique of the children of the coming age would be improved beyond all imagining.

Is This Civilisation?

By

"STANLEY"

ALTHOUGH we call ourselves a civilised people and talk loftily about "the untutored savage" and the League of Nations, are we really as civilised as we like to think? If so, why have we allowed a state of affairs to develop which bristles with the kind of problems we are accustomed to ascribe to "the stress of modern competition," "living at high pressure," "industrial depression," and so on?

Is it not a fact that many of the things we like to call "advantages of civilisation" have actually brought about a mode of life which is diverging further and further as time goes on from what appears to have been intended by Nature?

Consider the invention of artificial light, for instance, and its development through the various stages from rushlight to electricity. How are we using this "boon"?

Nature has so arranged the seasons that in the summer-time the sun rises early and sets late that man may have ample time to gather the fruits of the

earth. It was obviously Nature's plan that man should get up with the sun and go to rest at sunset. These are long enough working hours, in all conscience. In the winter, with its short days, man, without the help of artificial light would rise late and retire early. This follows the natural principle of which hibernation of animals is an extreme example. Man, by means of his artificially produced light and heat, turns winter into what is called the "social season," with its dances, parties and other excitements. Thus, at the season of the year when he is intended by Nature to work shorter hours and sleep longer, he actually lives more strenuously, frequently allowing himself shorter hours for sleep than in the summer. This tends to deplete his natural energy and lower his powers of resistance to the rigours of the winter.

Again, let us take the various inventions, all of them "scientific triumphs," which have "improved our means of communication." The locomotive, the internal-combustion engine (and all its applications to land, sea and air travel), the telegraph, telephone and wireless. What has been their effect on our daily life? Are we healthier or happier? It is doubtful. Man is going about on wheels or in the air instead of on foot or horseback. The animal population is decreasing. Our grandfathers or great-grandfathers thought little of setting out on foot to do a fifty-mile walk or riding on horseback from Manchester to London. If it were not for the growing popularity of "hiking" to-day, we should be in danger of losing our legs and becoming all head and liver. It may

be thought that this is putting the matter too strongly; but is it?

There is an inexorable Law which has been called "Nature's Law of Parsimony," by which an organ, limb or faculty if not used as Nature intends it to be used, begins to diminish in size and power. There are well-known examples of this in the human body in what are called "vestigial structures," vestiges of structures which are disappearing now that man walks no longer upon all-fours. Do the advantages to mankind, from being able to fly, outweigh the disadvantages? They certainly do not. Aviation is admittedly a scientific triumph, but is man the better for utilising this accomplishment so universally and intemperately? There is nothing in the human body, either anatomical in structure or physiological in function, to indicate in the very slightest that man was ever intended to fly, notwithstanding the wonderful description of an aeroplane which is found in the first chapter of the Book of Ezekiel. It may be urged that as a result of his new accomplishment a new variety of the *genus homo* will be evolved in course of time which will differ widely from *homo sapiens*, by reaction to the new environment, and that this evolution follows an immutable law. This cannot be contradicted on scientific grounds; in fact, there are reasons which make it possible. But no perceptible change in this direction could take place in a thousand years.

The diminution of the animal population of the country which has resulted from the invention of the internal-combustion engine may not at first sight seem important. In certain parts

of Central Europe there is a saying that "the wealth of a man depends upon the size of his manure-pile," meaning that a farmer with plenty of natural manure is well stocked and will be a successful farmer. Experiments in wheat-growing on soil which has been fertilised with artificial manure are said to show that the wheat may be deficient in certain vitamins which are essential for the welfare of the human body. If this be true it would suggest that there may be only a limited supply of these vitamins in the universe, and that Nature intends them to be put back into the soil as manure. Once this is proved, it would seem that the modern system of water-carriage drainage of which we are so proud is wasteful in its present form. Shortage of essential vitamins might very well be a contributory cause of race-degeneration.

During the past twenty-five years there have been some epoch-making discoveries in medical science which have conferred inestimable benefits on mankind. In some departments of medicine, however, one is tempted to ask whether we are not acting in direct opposition to Nature in the enthusiastic application of our knowledge. Is there no danger of our becoming too humane? Nature is essentially brutal, and the object of her brutality is to ensure the preservation of the species, if necessary *at the expense of the individual*. Is it not merely stupid to mobilise all the resources of medical science to prolong the lives of feeble and sickly children, who, if they ever reach adult life, are unlikely to be the progenitors of healthy stock? This is nothing less than prolonging the life of the indi-

vidual *at the expense of the species*.

In the days when preventive medicine was little known, disease took a terrible toll of human life, and it was not only the weak and feeble that went under. This is happening to-day throughout the animal kingdom to insects, reptiles and animals, as well as continual warfare between individuals. Those who survive are usually the fittest, for the battle is to the strong.

It would be too great a responsibility for a doctor to have to decide to whom expert medical assistance should be given and from whom it should be withheld. There are few doctors who would deny their help, quite apart from any question of fee. Thus it is even conceivable that the performance of too many miracles upon delicate and frail subjects so that their lives are preserved might even be a subtle and unsuspected factor contributing to degeneration of the race.

And what of the untutored savage who rises with the sun and sleeps when it is dark; whose weakly children and old people die or are killed; whose women unfit for childbirth die in childbirth; whose food-stuffs grow in virgin soil or are manured with natural manure and who eats his meat nearly raw with all its vitamins, when he can get it? There can be no doubt about the excellence of his physique or his power of endurance.

Are the "civilised nations" of to-day already condemned by the spuriousness of their civilisation to degenerate and decay, or will their "superior intelligence" enable them to see the danger and find a way out?

—(Guy's Hospital Gazette).

Milk and Motherhood

Milk and Motherhood, from the far-off day when mammals first appeared on earth, have controlled the development and directed the destiny of mankind. They wrought together, fashioned hand and brain out of their own substance, gave men dominion over earth until now they begin to falter and we become a shrinking and a C 3 nation.

When mankind learns how to apply Nature's subtle forces his regeneration will be within his powers to accomplish. Who shall say that the energy of food—when men learn how to use it—will not be among the most potent of these forces.

The vitamins, the numerous minerals which each play a decisive part in nutrition, and endocrine glands—those delegates of the will—are already known to perform the multitudinous miracles of nutrition. When more is known of the way they work what greater miracles may they not perform.

To-day we live, as for the most part mankind and animals and plants as well have always lived, in a half-starved world; starved of nitrogen, of phosphates of potash, of lime, and periodically with the revolving seasons starved of sunshine too; a hungry world, and mean because it is hungry.

With the world well-fed, disease will be known for what it is—the consequence of malnutrition.

Microbes, now feared as the tyrants that rule mankind will be seen for what they are—puppets of their maleficent prime minister, Malnutrition.

Crowd men together in dense

masses, starve the land, let the children of mankind go hungry of the things they need, feed babies on dead milk instead of milk with life in it, make microbes strong by sojourning in weak bodies; in short cover the earth with a cockney civilization, and men may well chant "Microbia uber alles." The microbes will be.

They will not be when mankind learns to make the world for man and not as now for microbes.

The foundations and the guidance of the body are Motherhood and Milk.

Men who build bridges take care that the girders are up to specification. Those who build babies don't.

The house of men, with its many mansions, needs many girders to sustain it. Let one but lack or be too weak and the house cannot be built, or collapses when it is.

Among these many girders are iron and iodine, both indispensable and both strong and sufficient of the life which, flowing from the earth through green plants, gathers them on its way. At present it does not. Iron and iodine, though it is easy to make them plentiful in milk, are as a rule deficient, as are vitamins A and D.

How, then shall house be strong even though the foundations are well and truly laid? There are some twenty elements in the human body, and every one is essential for health and well being. Who, knowing this and aware of our ignorance of how best to get them, dare declare, that anybody has ever throughout his life, summer and winter, been properly fed? Yet it is already easy to supply some at least of the deficiencies from which the food of mankind suffers.

Pasture properly fed with all the minerals that were needed, caused cows to produce milk which contained enough iron to cure pernicious anæmia. Why should it not be the care of agriculture to produce pastures from which cows could get the iron which would fortify them and their milk, and fortify the human body? Another essential was iodine. Iodizing the pasture might be a means of rejuvenating mankind.

All disease was self-evidently deficiency disease. "All flesh is grass", and if the grass was not dark green the

flesh would not be full-blooded and dark red, and if the flesh was weak what suffering and disease would follow!

In some parts of the world the cow is sacred; in others men worship the golden calf. If I were to bow down it would be before the cow—the foster-mother of mankind. My faith would be justified by her works, for she would prove by the milk she gave that cleanliness is indeed next to godliness, and so doing point the way to the regeneration of mankind.—*Birth Control News.*

Health News and Notes

Nursery Rhyme—1934

Mary had a little cold,
but wouldn't stay at home,
And everywhere that Mary went,
that cold was sure to roam;
It wandered into Molly's eyes,
and filled them full of tears.
It jumped from there to Bobby's nose,
and thence to Jimmie's ears.
It painted Anna's throat bright red,
and swelled poor Jennie's head.
Dora had a fever,
and a cough put Jack to bed.
The moral of this little tale
is very quickly said—
She could have saved a lot of pain
with just one day in bed!
—Lucy Thibault, *Arkansas Democrat.*

Antimony poisoning from Enamel Ware.—Owing to the use by some manufacturers of cheap enamel ware of the cheaper antimony oxides in place of the oxides of tin, the use of such enamel ware has proved poisonous on several occasions: This is due to the fact that the trioxides of antimony used as opacifying agents in

the manufacture of enamel, are soluble in certain organic acids such as Citric and tartaric acids, which are often used for making lemonades and other acid drinks. When such drinks are made in such hollow enamel ware of cheap quality or stored therein, the organic acids dissolving out the trioxides of antimony, form poisonous compounds with them. These poisonous substances cause great irritation of the gastro-intestinal canal, induce severe vomiting and may even produce death. The public have therefore been warned against the use of such cheap hollow enamel ware by the Ministry of Health.—(*Journal of A. M. A.* 7th July 1934.) S. S. Malkani.

Why not remain Youthful.

"Last year we published an article from an esteemed contributor on the folly of allowing oneself to become senile. He showed how men in especial are content to neglect the physical deterioration that sets in with middle age,

being too preoccupied or indolent to take precautions against it before it is too late", says the *Medical World*. At the recent meeting of the British Association for the Advancement of Science, Dr. Wynn Jones as President of the Section of Psychology, opened up a similar train of thought but on the mental side. Reviewing the three conventional stages of youth, middle-age and old age, he drew a sharp line between *Yearly* and *Physiological* age, and recalling how vastly men differ from one another at the same time of life in physical power, showed that mentally the onset of age was infinitely slower. Indeed if gauged by the reaction to intelligence and other mental tests, it seems we can postpone age almost indefinitely if only we have the will and application to keep young, continuing to exercise our powers of observation and interest in new things. Without pleading for adult education, Dr. Wynn Jones was impressive that no man under 45 is too old to learn or should refrain from it through pessimism. But surely this age-limit is too youthful. We hear of men in their seventies studying new languages, taking up fresh occupations or unaccustomed interests, all because they are not too self-indulgent to break the fetters of habit, but refuse to meet death half-way by the passive acceptance of senility.

The Potato.—A Brochure issued by the Potato Marketing Board makes extensive claims for the potato as an article of food, and not one of these claims is without foundation. Compared with the cereals, potatoes owing to their high water content are a less cheap form of energy producer, but

they have so many other advantages that it is unfair to make the comparison purely on the basis of energy production. The quality of potato protein is at least equal, if not superior, to that of the cereals, and in Vitamin content and salt balance it surpasses them. Potatoes supply Vitamin C and the Vitamin-B complex, and though their supply of Vitamin A as carotene is small, judicious selection and propagation of yellower varieties might be able materially to increase it. Neither Pellagra nor Beri-beri is recorded in persons subsisting mainly on potatoes, showing that the Vitamin-B complex is well supplied. The good Vitamin-C content of the potato is perhaps one of its greatest assets. The tubers are capable of storage for many months, throughout which the Vitamin-C content is well maintained; for persons on poor and monotonous diets over long winters, the potato must be one of the greatest protective factors. The occurrence of scurvy in Great Britain in the spring of 1917, when the potato supply fell short, witnessed to this. Potatoes yield an alkaline ash and are therefore preferable to cereals in diets where a preponderance of base-forming principles is desired. Some at least of the cereals appear to be actually rachitogenic and antagonistic to normal healthy tooth formation; the potato, it seems, has no such property. Whether, this property is due to a toxin or to the presence of a large proportion of the phosphorus in cereals in a non-available form, and even in a form which militates against the absorption of calcium also, is still not quite certain. The well-known and astonishingly favourable results of the survey of the teeth made

recently among the islanders of Tristan da Cunha, were a striking testimonial for the potato; for it, far more than any cereal, is the staple energy producing food of the island. There seems little doubt that a considerable proportion of the cereal in the diet of most people in Great Britain could be advantageously replaced by potato.—*From The Lancet, Oct., 12th '35, page 837.*

Apples in the Treatment of Diarrhoea.—J. E. Holst (Ugeskrift for Laeger, December 6th, 1934, P. 1335) has during the past year made extensive use of apples in the treatment of various forms of diarrhoea at his hospital in Denmark. Since this treatment began to be systematized in Germany only a few years ago, several modifications have been introduced. The most popular consists of grating ripe peeled apples and serving them raw in quantities of 500 to 1,500 grams in the twenty-four hours in five meals, at each of which 100 to 300 grams are given. This is the only food taken for a couple of days, though a little weak tea may be allowed if the patient is very thirsty. Sometimes only twenty-four hours of this treatment are sufficient, but it may have to be continued for three or four days to assure a permanent cure. The best results have been achieved in acute diarrhoea, but chronic diarrhoea also responds satisfactorily, and it is remarkable how uniformly effective this treatment is whatever the aetiology of the diarrhoea. One of the author's patients had for years been subject to recurrent attacks of diarrhoea which had necessitated prolonged dietetic treatment entailing considerable loss

of weight. The action of the apple dietary was so prompt in this case that a normal dietary could be resumed after only a few days. The chronic dyspeptic whose dietetic treatment is apt to imply partial starvation reacts satisfactorily to an apple regime. Its mode of action is still obscure. The tannic acid in apples has been credited with their therapeutic successes, but this explanation is not supported by the fact that many patients cured by an apple regime had previously failed to benefit from medication with tannic acid preparations.—*British Medical Journal.*

Dietetic Treatment of Obesity.—According to G. B. Harrop J. A. M. A. 10th June 1934) a diet having as its basis bananas and milk is an effective way of treating obesity, and is commended on the grounds of simplicity, low cost, ready availability, palatability, high satiety value and low salt content. The strict diet consists of 6 large bananas and 1000 ccm. of skimmed milk taken in 3 or 4 meals, which are spaced according to the individual preference. The caloric value of this is estimated as being 940. A salad of a quarter medium-sized head of lettuce or of an equal quantity of cabbage is a useful and valuable supplementary at one meal during the period of strict dieting. In about 10 days to a fortnight there is a loss in weight of 4 to 9 lbs. in persons who are moderately active, and who continue their usual routine. Reduction to 4 bananas daily is well tolerated by many and the results are said to be more striking. Weakness and severe physical discomfort must be avoided. Fluids without food value, including tea and coffee

but without milk or sugar, freely permitted, but salt is avoided in order to obviate retention of fluid in the body. At least 6 large glasses of fluid must be taken daily in addition to the milk. After about a fortnight the diet is modified by the gradual substitution of one or two bananas by one or 2 eggs and a little butter. Green vegetables may also be taken with butter poured over them, though not used in the cooking. Then lean meat fish or poultry can be added but not pork or thickened gravy. The strict and modified diets are alternated, each continuing for about a fortnight at a time, limit to which weight reduction can be continued, is given as one or 2 pounds a week or 5 to 10 pounds a month. Some hunger and weakness at the start of the treatment are not uncommon and need not be considered as deterrent, being replaced at the end of a week by a feeling of well-being. Weight loss in excess of two or three pounds a week indicates an undue loss of water except when the diet has been markedly curtailed, the larger losses at the beginning of treatment represent the displacement of water from the tissues, and this should be explained to the patient to prevent alarm. The author adds that although the nitrogen intake is low on this diet, the nitrogen balance was maintained fully in 6 cases observed and only slightly reduced in four others.—(Extract B. M. J. 13th Oct. 1934.)

The Danger of Sewers.—From time to time fatalities occur among men working in sewers. Some of the larger authorities issue fairly comprehensive instructions for this

work, but there is a want of uniformity. As no investigation had been made by any Government department or advice issued, the Ministry of Health a year ago appointed a committee to inquire into the subject. In the report it is pointed out that the dangers to men entering sewers or sewage tanks are of two kinds (1) flooding and (2) gases. As a precaution against the former bars or chains should be provided at all manholes in sewers, so that they can be fixed across the sewer below the point at which the man is working. Gases are classified as asphyxiating poisonous and inflammable. The composition of air in sewers usually differs little from that of the outside atmosphere but it may be much modified by stagnation in the sewer, due to structural defects or by admission of gases or liquids which readily vaporize. When stagnation occurs, the solid matter undergoes fermentation and absorbs oxygen from air in the sewer. If there is little ventilation the evolved gases gradually displace the air, so that the sewer atmosphere becomes irrespirable from reduction of its oxygen content. Of the gases that gain admittance to sewers, coal gas is the commonest, but acetylene from decomposition of unspent calcium carbide is occasionally found. Either may give rise to an explosive mixture. Of the vaporizable liquids that enter sewers, inflammable wastes from dry-cleaning works are occasionally encountered but gasoline is by far the commonest and may cause dangerous explosions. In sedimentation tanks, the gases to be feared are usually those produced in the early stages of fermentation carbondioxide and hydrogen sulphide,

but in septic tanks they are those produced in the later stages methane and carbon dioxide. The dangers of asphyxiation from irrespirable gases can be removed only by adequate ventilation of sewers and tanks. The greatest risk in this country is that of poisoning by hydrogen sulphide. The first and principal precaution is to prevent accumulation of sewage or sludge by cleaning out tanks and when necessary sewers at frequent intervals.

With reasonable care accidents should not occur. The test and precautions for ensuring safety are simple and should be strictly observed. Before any man enters a sewer or tank it should be ventilated. Tests must then be made for hydrogen sulphide (by exposing lead acetate paper for five minutes), for asphyxiating conditions (by a safety lamp) and for inflammable gases (by a detector lamp). All the men should be versed in the tests and a life line should be worn by the first man entering a sewer or tank until safety has been established. So long as any man is in a sewer, three manholes (the one entered and that on each side) should be kept open and two men posted at the entry manhole. Smoking and the use of naked lights should be forbidden. Rescue kits should be carried by every sewer gang and kept apart from the ordinary tools, the man in charge of the gang being responsible. It should include at least 2 life lines and one breathing apparatus.—(J. A. M. A. 22nd Sep. 1934)—J. M. T.

Nursery Schools for Poor Children.

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are helped by nursery schools which take care of their children aged three to six every day while the parents are searching for work. This is an educational movement which has grown out of the business depression, but will be a permanent feature even in prosperous times. In Hungary, for instance, a wealthy lady has opened several of these schools or homes. Early in the morning the small pupils arrive. Here they find a happy, care-free atmosphere, quite different from that of want and anxiety at home. They must arrive clean and tidy. In a special room each child has his tooth-brush and towel which he recognizes by being marked by a picture that has been chosen for him—an animal, a bird or a flower. Then the children lay the table for breakfast, sit down and enjoy it, and then clear the table. Lessons follow throughout the morning, then dinner, when they take turns to wait at table and serve out the food. They do all these extraordinarily well, though they may be only four years old. After this there is a time for sleep, a time for play, tea-time, and at five o'clock their parents come to take them home again. The parents find their children more helpful in the home, because of what they have learned here, and know that they have been kept happy and busy while they were seeking for work. These homes are part of an organization called Save-the-Children International Union, and are doing much to preserve this generation and make it strong and healthy. Much the same programme is followed in hundreds of similar schools in England. — *The Treasure Chest.*

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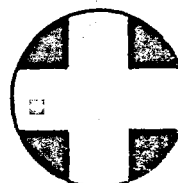
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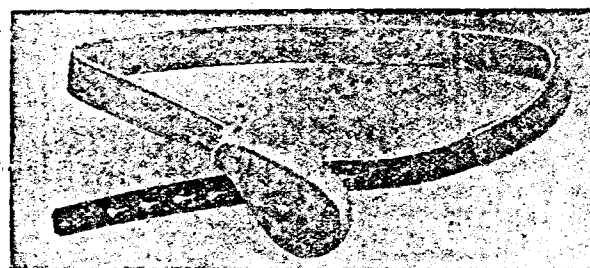
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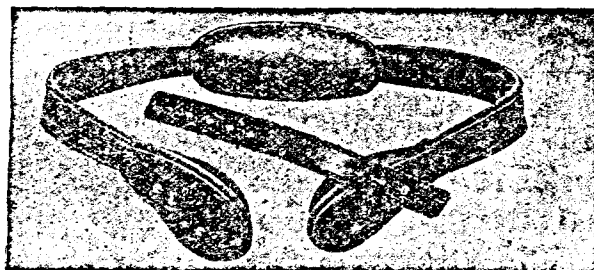
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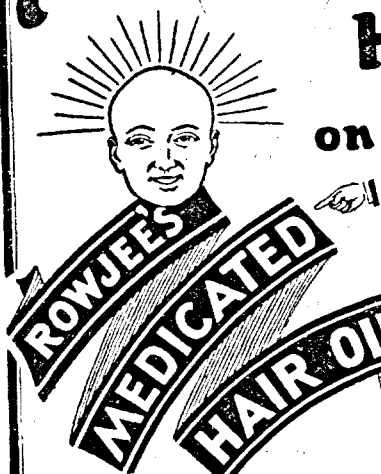
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