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Health

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Editorial

Shakespeare on some Social and Health Problems

SHAKESPEARE was the greatest dramatist the world had ever produced in ancient or modern times, perhaps with the single exception of Kalidas of India. "The genius of William Shakespeare has depicted so many shades of human emotions and has dealt so vastly with almost every conceivable phase of human activity that it is not at all suprising that the man who knew human beings so perfectly should have known something of Medicine of his day. His writings comprise a great philosophic and psychologic encyclopedia ever inexhaustible and ever stimulating", thus observed Dr. Alton Goldbloom, M.D., Montreal, Canada in his illuminating article on "Shakespeare and Pediatrics" published recently in the "American Journal of Diseases of Aug. 1938]

Children", from which a few extracts have been given elsewhere in this issue. We have been tempted after a perusal of this article, to pick out his views relative to Health and Social problems of his day and quote them here for the edification of our readers.

Shakespeare was an ardent lover of Nature and in reading a play by Shakespeare we imagine of a man who was ever in the pure air that encompasses the sights and sounds of external Nature and who found at will.—

"Tongues in trees, books in the running
brook,
Sermons in stones and good in everything".

Toothpick was greatly in use in Shakespear's time, and that shows what great care was taken of the

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And take upon's the mystery of things,
As if we were God's spies."

On the subject of early marriage, Shakespeare's views have been definitely expressed in the following line :

“ A young man married is a man that is
marred ”.

As regards the duties expected of a wife to her husband, they approach the Aryan ideal. The following sentiments in 'The Taming of the Shrew' are note-worthy and are bound to make many a present day hapless and miserable home, happy and comfortable, if strictly followed :

"Fie, fie ! unknit that threatening unkind
brow

And dart not scornful glances from
those eyes

To wound thy Lord,thy King,thy Governor :
It blots thy beauty, as frosts do bite

the meads;
Confounds thy fame, as whirlwinds shake

And in sense is meet or amiable. fair birds;

A woman mov'd is like a fountain troubled
Muddy, ill-seeming, thick, bereft of beauty ;
And while it is so, none so dry or thirsty
Will deign to sip or touch one drop of it.

Thy husband is thy lord, thy life, thy keeper,
Thy head, thy sovereign; one that cares

And for thy maintenance ; commits his body

To painful labour, both by sea and land
To watch the night in storms, the day

Whilst thou liest warm at home secure

And craves no other tribute at thy hands
and safe ;

But love, fair looks and true obedience
Too little payment for so great a debt:

Such duty as the subject owes the Prince
Even such a woman oweth to her husband

And when she is froward, pœvish,
sullen, sour

And not obedient to his honest will,
What is she but a foul contending rebel

And graceless traitor to her loving lord?
I am ashamed that women are so simple.

I am ashamed that women are so simple
To offer war where they should kneel

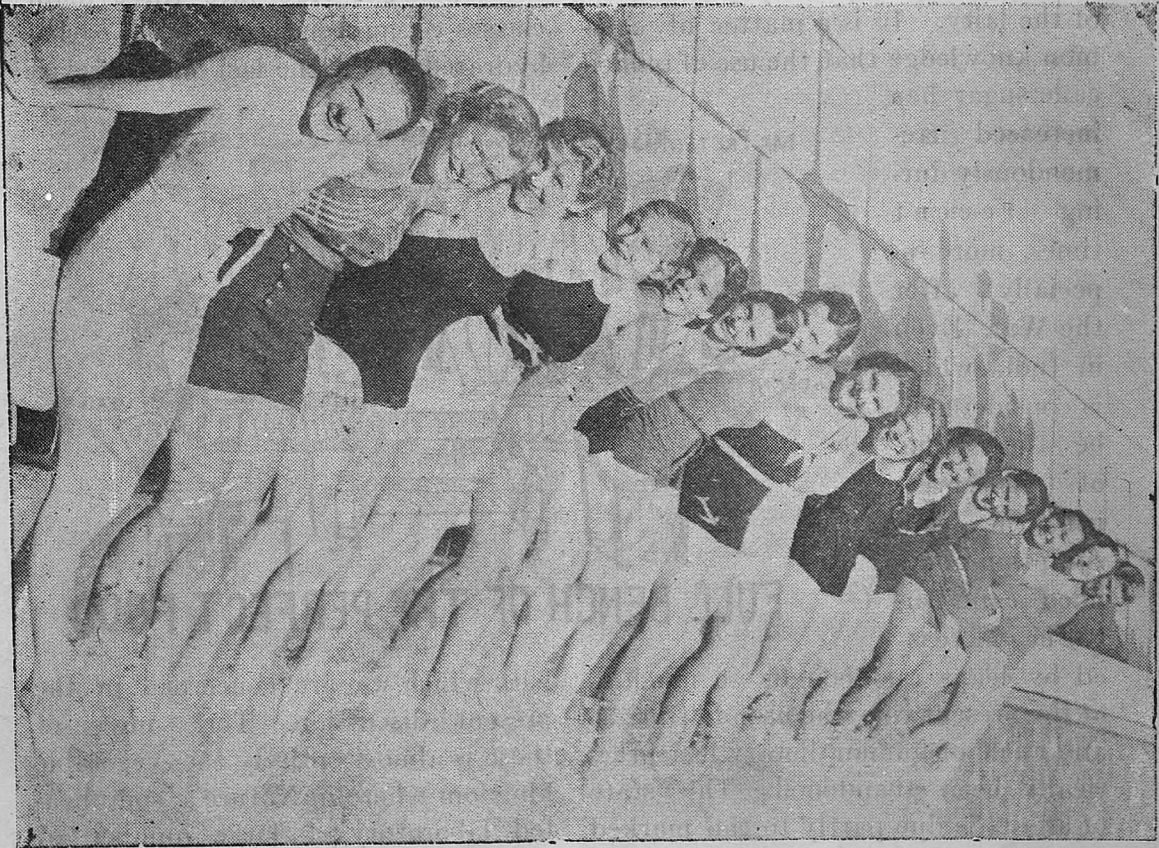
Or seek for rule, supremacy and sway

When they are bound to serve, love and obey;
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Why are our bodies soft and weak and
smooth
Unapt to toil and trouble in the world
But that our soft conditions and our hearts
Should well agree with our external parts?
Come, come, you froward and unable worms!
My mind hath been as big as one of yours
My heart as great; my reason, haply, more.
To bandy word for word and frown for frown
But now I see our lances are but straws:
Our strength as weak, our weakness
past compare
That seeming to be most, which we indeed
least are.
Then vail your stomachs, for it is no boot,

lators, women administrators, women
teachers, women athletes and women
in all subordinate services, the above
view may seem queer but we hold
that their professional duties need
cause no disturbance to their domestic
peace and happiness nor engender a
rebellious spirit in them. After all,
as the saying goes:

"Laughing children and loving wife are the
pleasures of a beautiful life."



A Swimming Drill Team.—California mermaids, daughters of prominent people from various sections of United States who are enjoying vacation.

And place your hands below your
husband's foot:
In token of which duty, if he please,
My hand is ready, may it do him ease."

In these days of women suffrage,
women parliamentarians, women legis-

They must, while at home, forget
their lordship outside and gracefully
acknowledge the overlordship of their
husbands at home.

Space forbids us to say more and so
we stop here.

Cane Sugar versus Gur

By Dr. B. L. Joshi, D.P.H.,

Dist. Medical Officer of Health, Jullundur City.

bed as a step in the right direction from the dietetic point of view.

It may not be out of place to recall that, besides

AN examination of the relative nutritive value of cane sugar *versus* "Gur" (Jaggery) has revealed certain important points which are apparently at variance with the popular views of the laity. It is a matter of common knowledge that the use of refined cane sugar has increased tremendously during recent times, more especially after the War. Even in India which is considered to be the home of conservatism, the consumption of refined cane sugar has increased

by leaps and bounds so much so that at the present time the use of "Gur" as an article of human dietary has practically been abandoned. This state of affairs is due partly to the marked reduction in the price of white sugar which has been made possible by the advent of latest machinery and partly to the general tendency of "civilised" man of wanting "something finer". Leaving aside the causes responsible for the popularity of white sugar, the resulting disappearance of "Gur" from the diet of the average villager can hardly be descri-

bed as a step in the right direction from the dietetic point of view. It may not be out of place to recall that, besides vitamins and salts comprised under the general term accessory food factors, the diet of civilized man may be divided from the biochemical point of view into three main classes *viz.* proteins, fats and carbohydrates. It is the last named class



FULL BENCH OF THE PERFECT FOOD

with which we are concerned in the present discussion. The source of these is almost entirely the vegetable kingdom where in Nature's complicated laboratory a large number of carbohydrates are manufactured and stored ready for the use of man and animal alike. Sugars form an important group of the class, carbohydrates.

The source of sugar in this part of the country is the sugar-cane whose juice, rich in sugars and salts, obtained by pressing, is dried up to give "Gur" (Jaggery) or refined into cane sugar. The manufacture of jaggery

or "Gur" has been carried on in India from time immemorial, and though the separation of cane sugar from the other constituents of Gur was also known to the ancients, the latter continued to form an important article of food and supplied the sugar requirements of the masses to the present day; whilst the use of refined sugar was confined to religious and ceremonial occasions.

Before taking up the chemical composition of Gur it would help in the elucidation of certain points to briefly refer to the chemical changes to which sugars are subjected during the course of their assimilation into blood. From the physiologist's point of view, sugars may be said to consist of two main groups, *viz.* the Monosachharides and the Disachharides and Polysachharides. Of these only the Monosachharides which include grape sugar (dextrose) fruit sugar (fructose) and a derivative of milk sugar (galactose) are capable of being absorbed directly by the intestinal epithelium, whilst the Disachharides and Polysachharides must first undergo digestion (*i. e.* Hydrolysis) into Monosachharides, before they can be assimilated. It will thus be seen that the Monosachharides are dietetically superior to the other sachharides in as much as they are directly assimilable without putting a strain on the digestive organs which come into play when dealing with the higher sachharides which must be converted into the Mono form before they can be absorbed. The bearing of this point on the dietetic superiority of "Gur" over refined sugar will be considered later.

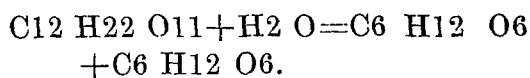
The chemical composition of "Gur" and refined sugar may now be considered. The following table sets out

the average composition of "Gur", the figures having been supplied by the Chemist, Public Health Department, Punjab:—

Sucrose	63%
Fructose	19%
Insoluble matter	3%
Moisture	12%
Salts	3%

Of these Sucrose is a Disachharide and Fructose is a Monosachharide. The sugars comprise 82% of "Gur" in which the proportion of Disachharides to Mono sachharides is roughly 3 to 1. This means that out of the 4 parts of these sugars consumed only one part is absorbed directly, whilst the remainder must be hydrolysed by a digestive process before it can be absorbed.

Cane sugar consists almost entirely of what is chemically termed Sucrose. Sucrose is really a Disachharide having the formula $C_{12}H_{22}O_{11}$. This takes up a molecule of water during the course of digestion and is changed into the monosachharides as is shown in the following equation:



The process of hydrolysis depends upon the presence in the intestine of a ferment named invertase.

It will thus be seen that the ingestion of "Gur" possesses one advantage over that of cane sugar in that its monosachharide content saves the organs concerned the exertion required to hydrolyse the corresponding amount of sucrose ingested. Diabetes has increased tremendously during recent years and a part, at any rate, of this increase may be due to the use of white sugar to the exclusion of "Gur". The ingestion of white sugar

entails comparatively more work on the digestive organs which are therefore likely to be exhausted and give rise to diabetes which is essentially a disease of exhaustion.

Moreover, as its Monosachharide content undergoes no change in the alimentary tract and is directly assimilable, "Gur" is more quickly restorative in its effect than cane sugar. It is a matter of common knowledge that the Zamindar and the farmer like to partake of "Gur" after doing hard work, the explanation given by them being that it restores energy and removes the sense of fatigue more quickly than anything else. There is another custom in this Province, in vogue since prehistoric times, of giving the mother after child-birth, "Gur" fried in Ghee with Ginger and condiments and repeating it during the first few days of the puerperium. The custom undoubtedly owes its origin to the rapid restorative effect of the ingestion of "Gur", whose monosachharide content quickly enters the circulation and furnishes the glucose so badly required during states of acute exhaustion. Now-a-days it is a common practice to prescribe glucose in acute exhausting diseases such as pneumonia, puerperal fever, eclampsia etc., as it corrects hypoglycaemia and augments the defensive forces of the body against infection.

Turning to the other constituents of cane juice contained in "Gur", we find from figures of analysis furnished by the Director, Nutrition Research Coonoor (S. I.) and reproduced below, that it contains small quantities of Iron, Phosphorus and Calcium, all of which may have some subtle influence on the metabolic processes more

especially Calcium which is presumably present in an organic form. The importance of calcium in strengthening the defensive forces of the body is being increasingly recognised by the profession and its value in the treatment and prevention of tuberculosis is now generally admitted :

	Grammes per cent. (i.e. per 100 grammes.	
Moisture	...	3.93
Protein	...	0.36
Ether extractives	...	0.06
Mineral matter	...	0.62
Carbohydrates	...	95.03
Calcium	...	0.075
Phosphorus	...	0.038
Iron	...	0.011

Calorific value = 100 calories per ounce.

Besides the mineral constituents the presence of vitamins A & B in small quantities postulated in "Gur" would give it superiority over refined sugar from the nutritional point of view.

From the above discussion it is evident that "Gur" as an article of diet possesses certain definite advantages over cane sugar. The presence in it of a large percentage of Fructose gives it dietetic superiority over sucrose and establishes the justification of its claim as a quick restorative after fatigue and hard exertion. The presence of mineral salts and vitamins would give it an additional advantage not possessed by cane sugar. It suffers from the disadvantage of not being so aesthetic in appearance and method of its presentation though its taste is more appealing to some palates than that of sugar.

As the matter is important from the dietetic point of view and as a

good deal of misunderstanding exists in the popular mind regarding the use of Sugar *versus* "Gur", it would appear to be necessary to give due publicity to correct views on the subject. Considering that "Gur" is both cheaper than and dietetically superior to cane-sugar, its use would be wel-

comed by the masses. It would therefore behove the Public Health authorities to disseminate correct information regarding the value of "Gur", and thus try to remove one of the many factors responsible for deterioration of general health in this country.

Your Feet and Your Health

EXERCISE THE ARCH OF THE FOOT

By S. K. Gupta, B.D.Sc., B.O., (Pb.),

Railway Road, Pasrur, (Dist. Sialkot.)

COMFORTABLE riding would not be possible in a motor-car were it not slung on springs designed to take the bumping and shaking to which it is subjected on the road. In the same way, the arch of the foot provides us with a shock-absorbing spring, which helps to make walking the real pleasure that it is to some people. It enables us to walk over rough ground without jarring our limbs, at the same time giving a certain amount of impetus to the stride.

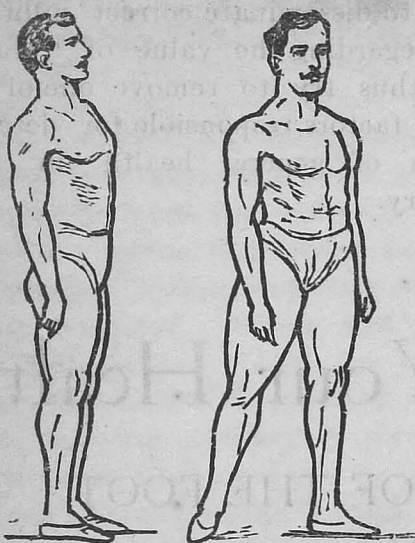
The foot consists of twenty-seven separate bones which resemble in every respect those of the hand. This similarity is illustrated to a marked degree in all species of apes, which can actually use their feet like hands for gripping hold of branches of trees, etc.

Modern life does not necessitate our exercising the feet sufficiently to keep them in perfect order. Since the advent of buses and tubes, people

are inclined to walk less than they otherwise would. Consequently, the arches of the feet grow weak through lack of work, and the small delicate bones of which they consist begin to sag, resulting in flat feet which readily become tired and painful. Artificial arch-supporting may be helpful in some cases, but generally speaking, it is best to do without them and try to repair the damage by strengthening the arch itself.

This can be achieved quite easily with the following simple exercise:—Stand erect, with heels together, then raise yourself on to the tips of the toes and gently lower yourself again. Repeat the operation a dozen or score times. Do this twice a day (preferably in the bare feet) and at any odd moments during the day. After a short period, it will be found that the feet do not tire nearly so quickly, and walking becomes a greater pleasure than formerly.

A person who walks really well is a rarity to-day. Most people forget to



THE RIGHT WAY OF STANDING AND WALKING

use the arch and ankle and walk too

heavily on the heel. The weight of the body should balance on the arch and toes of the foot which is completing a stride and not on the heel of the foot being placed on the ground. The springing action of the arch throws the body forward at the same time absorbing any shock imparted by irregularities in the ground.

Always make a habit of springing slightly from the feet when walking, keeping the weight off the heels as much as possible. This may tire the feet a little at first, but it only goes to show they were not being used before in the way they were meant to be.

How to Live Long

—By Dr. A. Lakshmipathi, M.B. & C.M.,—

Harris Road, Madras.

“A PERSON who is always regular in his food and habits, who has sufficient rest and recreation who performs all his acts after careful consideration, who does not entangle himself in any vices, who is of a charitable disposition, who regards others as his equals, who is truthful and has forbearance and who conducts himself according to the advice of wise men, will be free from all diseases and is always healthy.” This is what Ayurveda teaches in its first lesson to the students. Even if any one of the conditions is not satisfied, disease may easily attack any person.

Protection of “one’s” own life is the most important of a man’s duties.

It is useless to possess riches unless one has a long life to live. Granting that he possesses long life, a man cannot be happy unless he enjoys good health. It is better to die an early

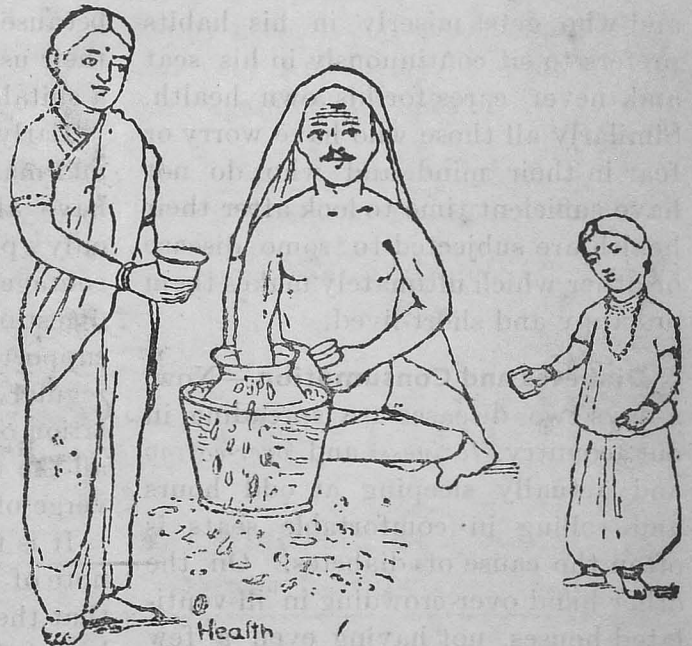
death than prolonging a sick and miserable life. There is nothing more miserable than to drag on one’s existence without a morsel of food to eat, a few rags to cover his body, some sort of work to do and sufficient strength to do any given piece of work. Are we not hearing of some young men who even go to the extent of ending their lives after the failure of all attempts to secure employment? The mental suffering of those boys is more oppressive than hunger.

Regular Food.—One should always use such food as is most agreeable to his constitution, age and strength. Climate and country have very much to do with the kind of food on which

people habitually live. They use wheat in the cold climate of Northern India, millet and ragi are generally used in the highlands of Central India and rice is very commonly used in the South. It is universally acknowledged that polished rice from which all bran is removed has to be condemned in favour of unpolished rice (*Rakta Sali*—Red Rice). One who wishes to get plumpy should gradually accustom himself to the use of milk, curd, ghee, wheat, black gram, new rice and jaggery, and eggs and flesh of animals living in marshy lands. But they must be able to digest them. Those who wish to get thinner are benefited by the use of light grains such as Ragi, Korra and Chama and pulses like green gram, red gram and horse gram, but not black gram, vegetables such as snake gourd, wild fruits such as goose berry, butter milk and honey are also recommended for reducing the body. The flesh of birds and light animals like partridge and rabbit living in dry jungle are also suited to them. Disease is generally produced by eating in excess and at untimely hours and not so much by want of food.

It is not so much the ignorance of what to eat that is responsible for ill-nourished bodies of the poor folk, but it is the want of where-with-all necessary for their healthy growth. Indian Medical Science is rich in valuable information on dietetics which gradually permeated through all classes of people by habit of ages.

Regular Habits.—Long life depends also to a great extent on the habits of the individual. These include cleanliness, physical exercise, mental and bodily rest and sleep and regulation of life including sex life. The following four examples are given of people constantly suffering from some disease or other. An over-religious teacher, a Government Servant, a



Buttermilk is nutritious but the practice that is now obtained in our country in selling it in open streets exposed to flies is insanitary and harmful.

prostitute and a petty trader, who by nature of their work do not in proper time attend to the calls of nature, nor take their food at proper time, nor have any peace of mind. The orthodox Brahmin is busy with his sacrificial fires, religious observances and teaching his students at all possible time. He does not devote any attention to the care of his body. The Government Servant is ever afraid of his master, and in his anxiety to please him and on account of his fears and worries he has no

time for himself, owing to his having lost his independence altogether. The prostitute, who has to depend upon her good looks for the attentions of her paramour always thinks of being well decorated and attractive and has really no time to attend to her own food and comfort for fear of some thing getting wrong somewhere. A petty trader who has to count his pises both in his purchases and his sales, and who gets miserly in his habits prefers to sit continuously in his seat and never cares for his own health. Similarly all those who have worry or fear in their mind and who do not have sufficient time to look after their health are subjected to some disease or other which ultimately makes them unhappy and short-lived.

Diabetes and Consumption.—Now-a-days two diseases are spreading in our country, *laziness* and *over-eating* and actually sleeping at odd hours and rolling in comfortable seats is often the cause of diabetes. On the other hand over-crowding in ill-ventilated houses, not having even a few square feet for himself to lie down is responsible along with bad nutrition for consumption. Over strain, retention of excreta in the body, irregular diet and sexual wastage are considered according to Ayurveda, the four predisposing causes of Consumption. Tuberculosis Bacillus there may be, it is every-where and at all times, but like the soil that is responsible for the suitable growth of the seed, the poor condition of the human body offers a favourite site for the growth of the Bacillus. It is the soil that has to be improved as it is impossible to eradicate the germ from the world.

Recreation.— Picnics, excursions

and water games (Jala kreeda) have become in India sports of the past. Lakhs of rupees were spent in constructing beautiful and extensive swimming pools which greatly encouraged cleanliness by offering opportunities for two or even three baths daily to all classes of people. These tanks have now become breeding places for mosquitoes and had to be closed at some expenses simply because we did not think of restoring their usefulness by providing for them a suitable inlet and an outlet.

Early rising, good ground exercises and massage and a comfortable bath have all gone out of fashion. The only pleasures that now exist encourage sensuality, laziness and indigestion. The three pillars which support a healthy body are said to be regular food, regular sleep and regulation of sex life (three upastambhas), all the three pillars are now on the verge of destruction.

It is therefore necessary to strike a note of warning and to tell the public that the senses can never be satisfied by continuously pampering to their taster and the only way is to bring them under the control of the Master and the Prime Minister namely the Mind. No burning fire can be quenched by pouring any amount of ghee upon it.

For promoting long life of an individual and of the members of any society, truthfulness, charitable disposition, forbearance and compassion for others and self control should be cultivated. In countries where these do not exist, the internal enemies of man namely desire, anger, miserliness, pride, manliness and jealousy which are called the six great enemies of man destroy the quality of blood more

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than any fever by the exhibition of excitement, restlessness and even a feeling like delirium and on a large scale create jealousies between nations, wars and untold miseries. Can any disease be imagined which is more destructive of life than a war, which makes people spend restless nights and days in the fear of being killed any moment. That is why Ayurveda says that of all things that protect and prolong human life non-violence is the first and the most important, (*Ahimsa Prana Vardhanam Utkrustatman*). Verginia, who won the title of Miss. America for her beauty is not satisfied with 9 marriages in 14 years and is awaiting her 10th marriage in her 30th year.

Whatever the Dharma Sastras or laws may say, society will not sanction such a state of things in India. This Science of Ayurveda which teaches us how to find out the duration of one's life and how to distinguish between what is suitable and what is unsuitable, what makes the life happy and what makes it miserable, is the best of all Medical Sciences, in order to promote a healthy and happy life. It is this Science that can very well carry on propoganda once again on the lines of,

*"Lokah Samasthah
Sukhino Bhavantu"*

"Peace be to all Universe".

To live a healthy life two things are essential—pure air and sunlight. To enjoy these one must live in a house, well ventilated and admitting sufficient sunlight as these two elements are absolutely necessary for the maintenance of life. Want of these predisposes an individual to Tuberculosis—the dreadful scourge taking such a heavy toll of human lives every year. As the dwelling houses in the villages of this part of Behar generally lack in these two life-giving principles, one of the measures to be adopted for the furtherance of village welfare is the reconstruction of these houses so that they may become fit for living in.

Old Types of Houses with Defective Ventilation.

Ill-ventilated houses a curse — disease germs thrive well in the absence of air and sunlight—a suitable abode of Tuberculosis.

VILLAGE UPLIFT

BY PHANIBHUSAN MUKERJI,

BAHERA, DARBHANGA

What one commonly finds in the villages is either a large compact building consisting of several rooms on the four sides with a small courtyard in the centre or a house composed of rooms on the three sides with a verandah having thatched or tiled roof on the fourth. Sometimes a small courtyard is surrounded on the four sides with small houses. In each case the rooms or the houses of one side block the ventilation of the rooms or the houses have an adjoining verandah inside and they are provided with very small windows or holes for ventilating them. Of course there are many exceptions.

New Types of Ventilated Rooms.

Ventilated houses a blessing—disease fly away from air and sunlight—Tuberculosis is cured by open air treatment in sanatoria.

A model house should be provided with 2 or 3 bed rooms, 10 ft. \times 10 ft. \times 10 ft. each or as many as one likes of a larger size, on the northern side, with a drawing room of the same size or a little larger one on the north-east corner; a store room and a bath room of correspondingly smaller sizes on the east; a kitchen on the south-east corner and a latrine on the south-west.

The bed rooms and the drawing room should have sufficiently large cross-widows, 4 ft. \times 4 ft. each, from 4 to 6 in each room for free ventilation. An adjoining verandah, 5 to 6 ft. wide, is to be provided both inside and outside. The plinth should be 3 ft. above the ground level. There should be a spacious courtyard in the centre. A compound wall between the bath room and the kitchen on the east, the kitchen and the latrine on the south, and the latrine and the bed rooms on the west should be erected.

The south, the east and west sides are left free for the admission of air and sunlight into the house.

A flower garden in front and the planting of fine trees on all sides not only add to the beauty of the house but also conduce to the health of the inmates, in-as-much-as interchange of gases takes place between the plants and the human beings. The former give off O_2 —Oxygen, which is inhaled by men, who in turn exhale CO_2 —Carbon dioxide, which is taken up by plants.

It was thought that after the great

earthquake of 1934 which had demolished many old houses, improved types of building with better ventilation would be built but to our utter disappointment it is found that the ignorant villagers are clinging to the same old types to which they are habituated from time immemorial.

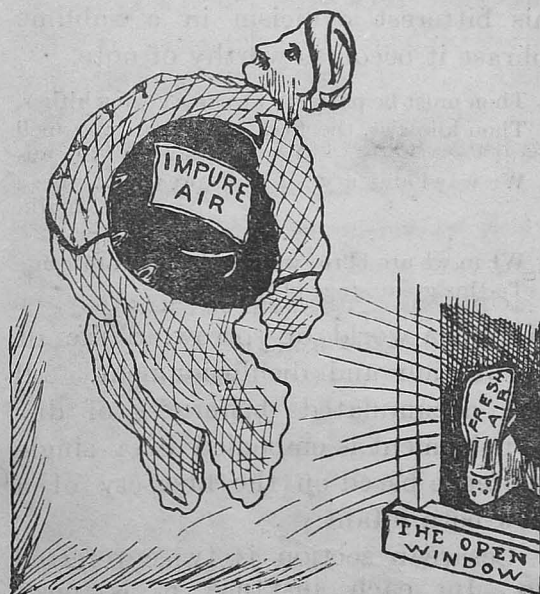
Evil Customs and Practices.

The erroneous idea that the access of air into the system brings about delirium in diseases has been inculcated into their minds by the quack practitioners of indigenous medicine. According to their advice, therefore, they have learnt the evil practice of shutting up the doors and windows when a person takes ill in a house. Not being content with that they hang thick clothes, blankets or mats over the closed doors, not being satisfied with that even they block the ventilation of the verandahs similarly by cloths, blankets or mats. Besides this, to protect the patient from the least exposure they take him to the innermost recess or compartment—where naturally neither air nor sunlight can penetrate—formed by the placing of graneries—earthen pots or vessels containing grains, commonly called “kuthis” in this part—at the junction of the 2nd and 3rd part or 3rd and 4th part of the room. As a result of this, the room becomes so dark that they light kerosene lamps or lanterns to illuminate it in broad daylight. If the patient happens to be in the collapsed state they burn wood inside making the atmosphere smoky. Sometimes the room, in which the patient lies, serves the purpose of a kitchen also, *i.e.*, cooking is done there. These practices are all injurious in as much as the air of the room

becomes vitiated and the patient instead of breathing pure air, inhales the air which he has himself exhaled and is full of CO_2 —Carbon dioxide. It should be replaced immediately by pure air which is O_2 —Oxygen, otherwise the patient would die of CO_2 —Carbondioxide poisoning.

It is very difficult to eradicate this age-long superstition. I have not been able to put a stop to this practice even after my strenuous striving for the last 20 years, especially among the illiterate classes. Constant and continuous propaganda in this direction is necessary and this constitutes the second step in the scheme for the enlightenment of the ignorant villagers.

It should be borne in mind that a man in health requires 3000 cubic ft. of air but whenever he takes ill the



More of fresh air is required to cure a diseased man. So keep all doors and windows open.

quantity of air he requires becomes double i.e., 6000 cubic ft. and unless and until the doors and windows are kept open constantly day and night this extra amount of air cannot be obtained.

By closing the doors and windows instead of helping the natural process of curing the disease by supplying the extra amount of air the patient requires then, they aggravate the disease or suffocate him to death.

It has been demonstrated time and again that in the collapsed state if the patient is brought out to the open air, the perspiration ceases and the body becomes warm, so, instead of putting the patient in a closed room and wrapping him up with clothes, he should be placed in open air and his body uncovered. Again in Pneumonia, the question of protecting the patient from draught disappears and the patient should be kept in the open air. Hence the bad habit of closing the doors and windows of the house of an individual falling victim to a disease, should be done away with as early as possible and the utility of pure air in health and disease should always be kept in mind.

Starving a Patient in Disease.

Another great drawback is to starve the patient. One should remember that unless fuel is supplied a fire cannot be kept up burning, so unless fuel in the form of carbohydrate foods—sago, barley, sugar, glucose—and milk is supplied to the patient the internal combustion or the production of heat, which constantly goes on in fevers and other diseases, cannot be maintained. If this liquid carbohydrate diet is denied, the patient lives on the digestion of his own muscles or tissues, or combustion at the expense of his own self—which is called auto-digestion. This means a progressive wasting of the body and a condition of toxæmia or poisoning. Hence to keep up the strength and to prevent self-poisoning the importance of giving liquid carbohydrate

foods to the patient should be borne in mind.

The delirium which is caused by the toxins of the disease—and not by the entry of air into the system as they suppose—and the diarrhoea, in

enteric, or typhoid fever, have been seen to diminish if nutritious liquid foods, like Horlicks, Glaxo, Ovaltine, milk-whey and fruit juices from oranges, pomegranates etc., are freely administered to the patient.

Shakespeare and Pediatrics

By Alton Goldbloom, M.D., Montreal, Canada.

[The following are the extracts from the above article referred to in our Editorial.]

“THE infant and the schoolboy, are referred to in the well known “seven ages speech.”

At first the infant,

Mewling and puking in the nurse's arms.

Mewling means “meowing” like a kitten, and puking has not changed its meaning, so that the description is thus quite suitable for the irregularly nursed, overfed infant, whining a bit after feeding at the breast and regurgitating a mouthful of his excess feeding. Then comes

... the whining school-boy, with his satchel
And shining morning face, creeping like snail
Unwillingly to school.

This is a description too perfect to require comment. In this same connection one cannot pass over the description of the

Last scene of all

That end this strange eventful history,
Is second childishness and mere oblivion,
Sans teeth, sans eyes, sans taste, sans every-
thing.

But to return to the infant, Shakespeare's plays abound in references to infants, infancy and nursing, and there is one particular reference to weaning with which I shall attempt

presently to deal at some length. There is nothing exceptional in Shakespeare's mentioning the fact that a new-born infant cries with his first breath, but when this is made the means of King Lear expressing his bitterest cynicism in a sublime phrase it becomes worthy of note.

Thou must be patient; we came crying hither;
Thou know'st, the first time that we smell
the air,
We wawl and cry. I will preach to thee:
mark.

When we are born, we cry that we are come
To this great stage of fools.

Here is a world of sorrow, a life of frustration and disillusionment. All the accumulated bitterness of disappointment is embodied in a single sentence based on the first cry of a new-born infant.

Cesarean section is twice referred to. In each instance it is post-humous section, the only type practiced in ancient days of which I have any knowledge. In “Cymbeline” Imogen's husband is called Post-humus, and the ghost of his dead mother cries:

Lucina lent me not her aid,
But took me in my throes;

That from me was Posthumus ript,
 Came crying 'mongst his foes,
 A thing of pity !

Ript is probably an aptly descriptive term for such an operation. It connotes the haste with which the infant was obviously removed from the opened uterus of the dead or almost dead mother. Lucina, mentioned in the last quotation, is the Roman goddess of light, or the goddess who brings into the light, and hence the deity who watches over women in labor. She is referred to in "Pericles" as the

Divinest patroness and midwife gentle
 To those that cry by night.

In "Cymbeline" the fact of Posthumus' unnatural birth had no bearing on the development of the drama; in "Macbeth," however, the fact has the force of an ambiguous oracle. The three witches have told Macbeth that

. . . none of woman born
 Shall harm Macbeth.

So in the final act in the encounter with Macduff, Macbeth says :

I bear a charmed life, which must not yield
 To one of woman born.

Macduff has the disarming answer :

Despair the charm
 And let the angel whom thou still hast served
 Tell thee, Macduff was from his mother's
 Untimely ripp'd. [womb

There are similar references to prematurity, such as "sent before my time" in "Richard III," but none of them contain anything more than a mere mention of the fact.

Sir John Falstaff uses his rotundity to refer to the rounded belly of the young infants :

My lord, I was born about three of the
 clock in
 the afternoon, with a white head and
 a round belly. [something

Many references occur to nursing at the breast of either the mother or the wetnurse. Lady Macbeth apparently nursed her own children :

I have given suck, and know
 How tender 'tis to love the babe that
 milks me :
 I would, while it was smiling in my face,
 Have plucked my nipple from his boneless
 gums,
 And dash'd the brains out, had I so sworn
 Have done to this. [as you

Several passages, however, make reference to a long held belief that the character of the nurse can be passed on to the infant through the milk. The Duchess of York says of her son :

He is my son ; yea, and therein my shame ;
 Yet from my dugs he drew not this deceit.

Coriolanus' mother says the same to him :

Thy valiantness was mine, thou suck'dst it
 But owe thy pride thyself. [from me,

From time immemorial, mothers have admitted that their children inherited only good qualities from them. "He doesn't get it from my side of the family" is an ancient defense which even Shakespeare knew how to express. Juliet's nurse expresses the same idea :

were not I thine own nurse
 I would say thou hadst suck'd wisdom from
 thy teat.

The closing scene of "Antony and Cleopatra" contains a reference to the nurse falling asleep with the infant at her breast. The asp has bitten Cleopatra in the breast, and she is dying :

Peace, peace !
 Dost thou not see my baby at my breast
 That sucks the nurse asleep ?

The allusion is easily recognizable—the infant fed without regard to time, nursing so long that both nurse and

infant fall asleep. Finally, the following may be taken as a reference to sudden death in a nursing infant :

Here could I breathe my soul into the air,
As mild and gentle as the cradle-babe,
Dying with mother's dug between its lips.

Coming now to weaning, there is in the garrulous speeches of Juliet's nurse an accurate account of an old established mode of weaning an infant from the breast. This method is by no means obsolete in many European countries; particularly is it still practiced in many of the Baltic states. When the child is between 2 and 3 years of age, on a given day and at a given time, the mother will offer the breast to her unsuspecting child. She will first have the nipple thoroughly sprinkled with pepper. The child takes the nipple, begins to suck and lets go with a savage scream, much to the delight of all the on-lookers. In a few hours the peppered nipple is again offered and again accepted by the unwary child. This usually suffices. A very stupid child will accept the offered breast a third time. It would be interesting to know from Latvian, Lettish and Lithuanian psychiatrists what psycho-sexual maladjustments they attribute to this strange practice. Juliet, according to the story, was weaned in this manner when she lacked about a fortnight of 3 years of age :

... but, as I said,
On Lammas-eve at night shall she be fourteen ;
That shall she, marry ; I remember it well.
'Tis since the earthquake now eleven years ;
And she was wean'd—I never shall forget it—
Of all the days of the year, upon that day :
For I had then laid wormwood to my dug,
Sitting in the sun under the dove-house wall ;
My lord and you were then at Mantua :—
Nay, I do bear a brain :—but, as I said,
When it did taste the wormwood on the nipple

Of my dug, and felt it bitter, pretty fool,
To see it tetchy, and fall out with the dug !

The nurse talks on till she is told to keep quiet, but she reveals many interesting details.

Susan and she,—

Were of an age : well, Susan is with God ;

This indicates that she was engaged as a wetnurse because her own child died while she was still nursing. She also makes the following interesting statement :

And since that time it is eleven years ;
For then she could stand high-lone ; nay, by
the road,
She could have run and waddled all about ;

The nurse remembers that it was eleven years since she weaned the 3 year old Juliet because "she could stand high-lone." Most infants in Shakespeare's day must have had rickets, and late standing, walking and dentition must have been so usual as to be regarded as normal. For instance, the young Duke of York makes the following observation :

'Twas full two years ere I could get a tooth.

A common nursery scene, that of the child falling, hitting its head and raising a lump on its forehead, is described by the same nurse in "Romeo and Juliet."

For even the day before, she broke her brow :

And yet, I warrant, it had upon its brow
A bump as big as a young cockerel's stone ;
A perilous knock ; and it cried bitterly.

A reference to child marriage occurs in the same scene. Juliet's mother saying :

Well, think of marriage now ; younger than
Here in Verona, ladies of esteem, [you
Are made already mothers. By my count,
I was your mother much upon these years
That you are now a maid.

As to congenital malformations, many are referred to in Shakespeare's works. Particularly are they made

use of to harmonize the deformed body with the deformed soul of Richard III, who is a veritable clinical repository of congenital defects.

... since the heavens have shaped my
body so
Let hell make crook'd my mind to answer it.

That Richard III was born with teeth is mentioned again by Queen Margaret to the Duchess of York, Richard's mother.

From forth the kennel of thy womb hath
crept
A hell-hound that doth hunt us all to death:
That dog, that had his teeth before his eyes,
To worry lamb and lap their gentle blood,
That foul defacer of God's handiwork.

The only references susceptible of an interpretation as an allusion to any of the "contagious blastments" of young children as they are known today is one in "Coriolanus":

How! no more?
As for my country I have shed my blood,
Not fearing outward force, so shall my lungs
Coin words till they decay against those

meazles,
Which we disdain should *tetter* us, yet sought
The very way to catch them.

Whether measles refers to present-day measles or is used merely as a vague term indicating any one of the exanthemas cannot be definitely decided, but judging from the general confusion about all exanthemas almost to Sydenham's time, it is doubtful if Shakespeare could have known of any such distinctions: Measles, tetter and smallpox, apparently were all one.

Shakespeare has two epileptic characters, Julius Caesar—"Tis very like; he hath the falling-sickness," and Othello—

My lord is fall'n into an epilepsy:
- This is his second fit; he had one yesterday.

Note Iago's excellent treatment:

The lethargy must have his quiet course:
If not, he foams at mouth, and by and by
Breaks out to savage madness. Look, he stirs.

On child training there is nothing of significance in Shakespeare's plays, save one line in "Othello":

Those that do teach young babes
Do it with gentle means, and easy tasks.

Shakespeare had a great deal to say about syphilis, and some of his descriptions of syphilitic lesions are so exact as to suggest a very intimate knowledge of this disease, which in his day was sweeping Europe; but he did not seem to realize the effect of the syphilitic virus on the progeny; hence his plays do not enlighten one at all on congenital syphilis. Nevertheless, Shakespeare's excursions into syphilography would form a very interesting chapter in medical history.

I have attempted in my poor way to assemble from references and from my own readings a number of Shakespearean quotations having some interest to the pediatrician. They shed some light on interesting customs and beliefs as well as on the extent of pediatric knowledge in Shakespeare's time. It is just another evidence of the great mind of the greatest poetic genius, the man whom Emerson called the Emperor of the Mind, whose genius

... filled all measure
Of heart and soul, of strength and pleasure.

Shakespeare has enriched every phase of thought and human action. His pediatric contributions illustrate but another facet of this many-sided colossal intellect."—*American Journal of Diseases of Children*.

Why Not Change Yourself?

ARE you sad—
gloomy—mis-
erable — inclined

By P. C. Bhatia, B.A., (HONS.), B.T.,
— Teacher, M. B. High School, Ambala. —

quality. Feel a
thrill of happi-
ness running all

to look on the dark side of things—
disappointed—in ill-health, or in con-
stant dread of some future happen-
ing? Do you suffer from some in-
feriority complex—you want to rise
higher—you have capabilities to climb
—but something keeps you down? Do
you often feel the way to hell is often
paved with good intentions? Do you
often blame your stars? Well, then—
be lifted out of this mental miasma.
Change your mental attitude, and
you can change.

Yes, change, change so that friends
may not be able to recognise you.
Truly, there is such a force in you
that might open up gardens of Eden.
Would you wish your rosiest dreams
to come true? Then, don't oversleep.
Rise, awake, identify yourself. Your
mind is the ruler of your body. All
organs and parts of the body—the
heart, the lungs, the blood, the bones,
the muscles, in fact every fibre of
your being plays to the tune of your
mental harp. Keep it highly strung—
well under control.

Your imagination is a great phy-
sician—a great magician. Imagine
what you want done, imagine yourself
strong, brave, active—and you shall
be strong, brave, and active. Always
think of the quality that you wish to
produce in yourself, praise, appreciate
and admire that quality in others.
Let your mind always dwell on the
advantages, the possibilities and desi-
rabilities of possessing that particular

over you, when you discover your
'desired' quality in others. Don't
feel sad. Feel as happy as you
would be if you *had* that particular
quality. Try to feel as if you had
that particular quality. Select some
one—some one out of the stirring,
sweeping, towering personalities of
the world, the astounding wizards
and prodigies, the greatest social,
religious and political heroes, the big-
gest thinkers, philosophers, martyrs
and saints, some one to respect, revere
and worship, some one to chisel your-
self to perfection after his pattern,
some one to act as a model for your
striving after, some one who pos-
sesses very desirable qualities in
an ideal state of perfection. Remem-
ber, you tend to become that which
you admire.

Yes, you can change. People have
changed. People are changing. Why
not you?

Change cowardice into courage,
ill-health into bursting, blooming,
health, gloom into joy—just by forget-
ting the defect you have and dwelling
on the opposite quality you wish—in
the same manner as you dispel dark-
ness by introducing light into the
room.

Make a mental picture of yourself
in the ideal state of perfection. Day
and night, try to believe that you
are attaining your desired end. Rea-
son out to yourself, at quiet moments,
if people have extricated themselves

out of cringing, cramping atmospheres, cast off fear to the winds, torn loose from the keeping-back, influences, and climbed on to the battlements of their hearts' desire. Can you be left behind. Visualise, contemplate and concentrate yourself on the ideal 'you'—towards which you are slowly but surely drifting, towards which you are being dragged away by some unknown force.

Stop negative thinking. Practise positive thinking. Never say "I

can't", say, "I will". You can—you will—you must. There is magic in such thinking. Napoleon said, nothing was impossible and nothing was impossible for him. He walked about in the rain of bullets, thinking no bullets would strike him—and no bullets did.

Fall into the rut of such creative, progressive thinking and you will change radically. People won't recognise you. Nor will you, your own old photographs.

● Topics from Medical and Health Periodicals ●

How Jealousy between the Parents reacts on the Child.

It really is remarkable how neurotic attitudes* are handed on not by heredity but by the visitation of the sins of the fathers unto the third and fourth generation.

If jealousy between the parents is evil, its accompaniment of bitterness and quarrelling are just as bad. Perennial fear and a desire for peace at any price is too frequently instilled into the child by the hectoring, bullying and perhaps drunken father or the nagging, spiteful mother. Not only does the child grow up in an atmosphere of fear, but he may feel that he is pursued by a sort of malignant fate, since he senses that his family is different and less harmonious than that of his friends, and he comes to feel that he himself is different and under a ban. His friends do not like to come to his home, since it is a centre of disharmony, and he

is ashamed to ask them home, and this makes him feel very often that he himself is unpopular for his own sake. So he goes through life with a feeling of fear, uncertainty and inferiority.—*Mother and Child.*

Hospitals in India in Olden days.

THE earliest hospitals mentioned in literature are those of India, for among the other achievements of early Hindu civilization was the organisation of hospitals for towns and villages. The objects of this hospital service were both to care for the sick and to prevent the spread of disease, and thus the Hindus were socially a step ahead of the Egyptians, the Greeks and the Romans, who recognized the importance of isolation and public hygiene, but made no provision for nursing as a communal service. You may be interested to hear a description of the ideal doctor

from Hindu literature of about the fourth century before Christ :

"He should be cleanly in his habits and well shaved, and should not allow his nails to grow. He should wear white garments, put on a pair of shoes, and carry a stick and umbrella in his hands, and walk about with a mild benignant look, as a friend of all created beings.....A physician should abjure the company of women, nor should he speak in private to them nor joke with them."—*Irish Journal of Medical Science*, November, 1937, "*History of Therapeutics*"—R. H. Micks.

The Song of the Water.

THIS is the title of a propaganda film recently produced by the "Health and Water" Association, whose headquarters are in Paris.

In building his dwelling, man has always sought the proximity of water without which naught can be established on a lasting basis. He has resorted to the most ingenious methods for capturing water from under-ground springs and rivers and bringing it to his own door. He has constructed such works of art as aqueducts and devised intricate networks of conduits for supplying towns and villages with this precious fluid. Its purity is ensured by means of artesian wells, filters and other appliances.

The embellishment of our towns and villages owes much to the ornamental fountains which decorate public places and buildings, but the most important role which water plays is in the home where it is an essential factor to health and well-being. The domestic uses of water are legion ; it constitutes the basic

ingredient of home hygiene, bodily cleanliness, aquatic sports, and the preparation of food and drink. In town planning, it is not sufficient to arrange for an adequate domestic water supply ; sewers must be provided for carrying away used water, and plans must be made for fighting conflagrations when they occur.

If water is essential for the lives of town-dwellers, how much more important is it for farmers and stock-breeders ?—*League of Red Cross Societies' Monthly Bulletin*.

Germany Prefers Health to Revenue.

GERMANY, finding necessary the exercise of rigid measures of economy to meet the needs growing out of present government policies, has placed restrictions upon the use of meat, tobacco, and alcohol. During the World War, meats were practically wholly eliminated from the bill of fare in Germany. The most eminent German physiologists subscribed to a statement issued to the whole nation in which meat was declared to be unnecessary as a nutriment and reminding the people that their hardy ancestors were not meat eaters but subsisted upon nuts, acorns, and fruits.

A similar announcement was made by the Inter-Allied Food Commission representing England, France, Italy and the United States, in all of which countries the use of meat was restricted to such a degree that it was not included in the foods named as essential in rationing the civil populations of the several countries named.

That the unanimous opinion of the

world's most eminent scientists was well based, was demonstrated by the fact that the health of the people of each one of the countries involved in the war improved during the war as shown by a notable fall of the death rate.

Professor Hans Reiter, President of the Federal Health Board of Germany, demands drastic restriction of the use of liquor and tobacco, maintaining that the 148,000,000 marks which the people of Germany spend annually for alcohol and tobacco, yield a handsome revenue to the government, but this does not compensate for the injury to health which they cause.—*Good Health*, (U. S. A.)

Health for the Office Worker.

Beauty and Mental Vigour may be won by the Office Worker

THE problem of keeping fit and healthy when one's life work demands that the major portion of each day be spent within the four walls of an office is a very difficult one. It is true that conditions under which office workers now do their duties are much better than they were only a few years ago. But a great deal can still be done to further improve the working conditions, particularly in the smaller towns not equipped with modern buildings.

It ought to be an enforced law that all offices be well ventilated and lighted. The temperature should not in any case be so hot or so cold as to cause physical discomfort. All offices need very thorough cleaning, for the dust which collects among books and papers is not only prodigious, as

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every office worker knows, but germ-laden and most injurious to health.

Office workers frequently suffer from sick headache, this is often caused by bending over a mountainous pile of dusty office files, and bad ventilation. The office should be cleared regularly of unwanted accumulation of papers and rubbish. When several persons work together in an office of small dimensions it is a wise precaution to spray the air regularly with a sweet scented disinfectant. To avoid epidemics, the telephone receiver should also be kept disinfected.

The psychological and physical factors in offices go hand in hand. The worker can think and do his task far better if his mind is eased by pleasant surroundings, and he is bodily comfortable. Since the office worker spends so much time sitting down, his work will be done much better if a comfortable cushioned chair is used, instead of the usual hard cane or wooden seats.

Fresh air is very necessary to healthful living, and the average office worker does not get anything like the amount necessary. But with a little organization it is not difficult to fit both fresh air and exercise into the precious lunch hour. Many workers eat their lunch in parks and open spaces in summer, and this is a most healthful habit. But fresh air is necessary in cool weather also, and you should take a brisk walk every lunch hour, except when the weather is very wet or foggy.

In the matter of clothing for work, women are far in advance of men, but in winter many women are apt to wear too light clothing. The business

woman should remember that in cold weather suitable clothing should be worn to maintain warmth and circulation. The expense and inconvenience of illness in winter might easily be avoided by the hygienic rule of light wool or silk-and-wool underclothing at this time of the year.

Regarding meals, it is much better for the office worker to make the evening meal the main one of the day. The normal lunch period is not long enough to allow a full meal to be eaten in decent leisure—let alone be digested. Have a good, cooked meal in the early evening, when you can digest it at leisure.

Finally, a very important factor in the health of the business worker is a proper amount of sleep. Those who continually indulge in entertainments which keep one awake until a very late hour, when early rising is necessary, will soon be on the sick list.

Remember that the repair of tissues takes place during sleep, and a reserve of vital energy is acquired in readiness for work the following day.—*By Ian Herman—Good Health.*

Diet According to Ayurveda.

MILK diet is recommended for those who have fasted or over tired, or indulged in sexual intercourse, or exhausted the vocal chords. Exclusive buttermilk diet is recommended in cases of kidney disorders and Diarrhoea and honey to the obese. Foodstuffs taken in excessive quantities, containing hairs etc., not properly cooked, either very cold or hot, are always indigestible. Mental conditions and emotions play a great part in indigestion. Food should be taken when only real appetite is felt. He who does not bathe is not fit for taking meal. One who takes meal without satisfying the Angels, guests, children, masters and his tamed animals, cannot assimilate his food pro-

perly. Half the portion of the stomach should be filled with food, one-fourth with water and the remaining one fourth should be left vacant. Limited quantities of water should be drunk by those who suffer from Diarrhoea, indigestion, enlargement of liver and spleen, ascites, ulcers, Leprosy, Dropsy etc. One should not indulge in too much conversation, sleep, basking in the sun, jumping, riding and walking immediately after meal.—*The Journal of Ayurveda.*

The Use of Tea in the Treatment of Burns.

A POT of tea is prepared by infusing six teaspoonfuls of black tea in six cupfuls of boiling water for ten minutes. Four layers of clean handkerchiefs or sheeting are soaked in the hot tea and the warm compresses are applied directly to the burned area. A light bandage is applied. The bandage is soaked with tea when it gets dry during the first 24 hours. The dressing is left on for from 12 to 14 days. The constitutional treatment is carried out in the usual way. Antitetanic serum is given on the first day. If at any time there is sepsis as evidenced by a rising temperature, rapid pulse, coated tongue and anorexia, the dressings are reapplied after the wound has been cleansed thoroughly under anaesthesia. In the place of compresses, spraying with tea may be carried out every hour for from 12 to 24 hours as in the case of tannic acid. An electric cradle will help the applications to dry. Cutaneous grafting is necessary for the large ulcers of deep burns. Twelve cases of burns were treated. Six were extensive third degree burns. The early cases were treated with compresses of moist tea leaves. The burnt areas healed as rapidly with tea compresses as tannic acid compresses.—*The Indian Medical Gazette.*

Bulgaria—A Nation of Centenarians

BULGARIA claims the distinction of being a nation of centenarians. Latest statistics reveal that there are more than 4,000 persons in the country who are one hundred or more years of age. Most of these live in villages or mountain districts and lead primitive lives.—*O. W.*

* * *

A New Cosmetic

IN England a new cosmetic is being marketed, derived from the grease of snakes, which is intended for rubbing all over the body to rejuvenate the skin. It originates in India, where it has been known for centuries. For the present, however, its use must necessarily be restricted to the "upper crust," inasmuch as it retails for the neat sum of eighty pounds of the coin of the realm.—*O. W.*

* * *

Man's Bodily Contents and Their Equivalents in Materials

A man who weighs 140 pounds contains enough fat for seven cakes of soap, carbon for 9,000 pencils, phosphorus to make 2,200 match heads, magnesium for one dose of salts, iron to make one medium-sized nail, lime enough to whitewash a small shed, enough sulphur to rid one dog of fleas, and water to fill a ten-gallon cask.—*O. W.*

* * *

Sudden Loss of Appetite.

THE sudden or steady loss of appetite may indicate the onset of an illness. But one will then always find associate symptoms. If these are absent

the eating question need not become a constant source of worry and irritation. The child will eat more when its body demands it. Peace and patience will bring more success than unnecessary anxiety, uneasiness, and worry.—*Good Health, (Lond.)*

* * *

Vaccination Against Whooping-cough.

DENMARK has begun to vaccinate all her children against whooping-cough, hoping to add this disease to small-pox and diphtheria as ills from which little children need not die. This decision has been reached through the results of recent experiments. In a group of 1,000 un-vaccinated children this disease killed twenty-six. In a group of 3,900 vaccinated, there were only six deaths.—*Good Health, (Lond.)*

* * *

Advantages of Early Marriage

A Reputed Doctor's Opinion

1. In the wishy-washy writing of Dr. G. T. Wrench, M.D., B.S.,—a doctor of repute in the Dublin Rotunda Hospital—(in his book 'Health and Wedded Life')—two things stand out in bold relief, *viz.*, courtship is wrong and selection by parents and guardians far better and that marriage should be entered into early, to avoid the punishment of Nature. In other words the provisions of the Shastras are the wisest and courtship and delayed marriage are poisonous to society.

2. It has already been shown that early marriage is by far the best and that late marriage opens the flood-gates of lecherous debauchery.

Dr. Wrench adds his emphatic testimony against late marriage and says early marriage is undoubtedly the best.—(*Truth*)—*Thro' Dharmarajya*.

* * *

Man is no Meat-Eater

“THAT man is not by nature carnivorous is proved, in the first place, by the external frame of his body. He has no curved beak, no sharp talons and claws, no pointed teeth, no intense power of stomach or heat of blood which might help him to masticate and digest the gross and tough flesh substance: on the contrary, by the smoothness of his teeth, the small capacity of his mouth, the softness of his tongue, and the sluggishness of his digestive apparatus, Nature sternly forbids him to feed on flesh.”—*Plutarch*.

* * *

Saliva and Sewage

DR. J. FORBES Webster, Dean of the Glasgow Dental Hospital, in a recent address to the City of Glasgow Society of Social Service, stated that probably 80 per cent. of the citizens of Glasgow have bad teeth, and that the percentage among school children is probably greater. He added that it has been computed that if they took saliva from the mouth of a person with bad teeth, and took an equal amount of sewage, they would find that there were more germs in the saliva than in the sewage.—*Medical World*.

* * *

Is Tuberculosis Curable?

(1) Tuberculosis is curable provided the disease is diagnosed in the early stages and the patients be treated in suitable Institutions, either

special Hospitals or Sanatoria.

(2) The earlier the patients seek treatment, the better are the chances of recovery, as has been shown by statistics from Indian Sanatoria.

(3) For fighting the tuberculosis menace it is necessary not only to detect the cases at the earliest onset but also to make arrangement for their treatment in some special Hospitals or Sanatoria and after-care colonies. By these means the potential disseminators of disease will be isolated and given such education and training that they can live as useful members in the society without infecting persons coming in contact with them.—*Health and Hygiene*.

* * *

Purpose of Vitamins A. B. & C.

BRIEFLY, here is the purpose of vitamins.

Vitamin A is known as the anti-infective vitamin. Exclusion of this vitamin from the diet results in a very painful eye disease. When this vitamin is absent, the mucous membranes of the whole body undergo changes and become more prone to disease.

In the British Isles the vitamins B₁ and B₂ are not of particular importance. The coolie who eats only polished rice is liable to suffer from vitamin B₁ deficiency and suffer from the disease known as beri-beri, while in countries where there is an excessive consumption of maize, vitamin B₂ deficiency appears in the form of a disease known as pellagra.

Vitamin C is an important vitamin. It is found chiefly in oranges and other citrous fruits. It is the anti-scorbutic vitamin.—*Health for All*.