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THE ORIENTAL

WATCHMAN

AND HERALD OF HEALTH



G. I. P. Railway Publicity Bureau

THE BUND, POONA

Read in this Issue—

HOW THE BODY WORKS



A MOST useful tree grows in Mexico, called the magney tree. It can provide a traveller with needle and thread, if he suddenly requires it. There is a long, slender thorn needle at the tip of each dark green leaf of this tree. If this needle is drawn out it unwinds a thread of smooth, strong fibre of a good length.

SOME years ago, Dr. Treat Johnson, of Yale University, U. S. A., invented an antiseptic known as hexylresorcinol. It is seventy times more powerful than carbolic acid, and has no toxic effect on the human system, so that it is widely employed for internal use. Now Dr. Paul D. Lamson, associated with the International Health Division of the Rockefeller Foundation, has found that this new drug is a complete cure for hookworm. At least, it has proved effective against the two types of parasites which are found in America—the hookworm and ascarids, or common round-worms.

MR. EMIL JOHN and Mr. Herbert Kohnert, two German engineers, have invented a vehicle which they believe will revolutionize the motor cars. It has neither gears, brakes, nor any connection between the engine and the wheels. The principle of the engine is based on the rapid movement of an air current, which is produced by screw propellers. These propellers are there solely to produce a displacement of air, and not to 'screw' their way through the outer air, as is usually the case. When the driver is at the wheel he need only start the motor, and change the angle of the shutters gradually until they are at forty-five degrees from the vertical. To stop he has only to give the shutters the vertical position, without stopping the engine. Accelerator, brakes and other devices are thus unnecessary.

A WAX that can be mixed with water is the latest curious product of the synthetic chemist's art. This substance known as glycera wax, has been put on the market recently where it should find ready acceptance by makers of polishes and cosmetics. In its pure state, glycera wax is light tan in colour, odourless, tasteless, and melts at 140 degrees F. It is more readily soluble than any natural wax. Although not soluble in water, glycera wax can be melted by heating in water, and if the mixture is stirred while it cools, the wax is dispersed through the water to form a white, creamy emulsion. When this cream is applied as a polish, the water dries out, leaving a transparent film of wax instead of the usual white film which results from ordinary so-called liquid wax polishes. The new product should be useful in making water-proofing compounds, shoe creams, water-colours, and water-inks, and in glazing felt, fur, and textiles.

SINCE buttons have been made out of compressed milk, and artificial silk out of glass, it is not surprising to find wool being made out of rock. This wool cannot be made into cloth, being too glassy in composition. It is excellent for insulation purposes, for filters, for packing corrosive materials and for heat-proofing walls and roofs of houses. For this latter it is blown into air spaces through small holes, by means of small air compressors. This mineral wool is made of limestone and rock such as is to be found at Niagara. Alternate layers of rock and coke are put in the furnaces, and come out in thin streams of molten rock. This is met by a blast of high-pressure steam or air, and blown into long, fine fibres. Canada is now undertaking the production of this new material in large quantities, and wool-lined houses are becoming quite popular.

A NEWLY-BUILT home for deaf people in Germany has introduced an excellent idea. The problem of how to give warning to the inmates in the event of danger was solved in this manner. An automatic device has been so arranged that by pressing a button the night watchman can set the mattresses on all the beds shaking, thus waking up the sleepers. There are also light signals instead of bells, in case of alarm.

THE fountains of Lake Daumesnil in the Bois de Vincennes, Paris, can claim the distinction of being waited upon by a perfumer. The waters of this charming little lake are not only pumped and illuminated as they flow through the many fountains of the Colonial Exposition, but they are given the scent of roses or lilac or some other agreeable odour by means of a process introduced by M. A. Gimonot, who calls himself a consulting chemist-perfumer. This device has been welcomed by visitors to the exposition, who found that the odours which arose from Lake Daumesnil were sometimes lacking in freshness.

A FIRE that lasted for two years has at last been extinguished. An oil well was being drilled at Moreni, Roumania, early in 1929, when a layer of highly-compressed gas was struck. The gas blew up, scattering drill, stones, and dirt high in the air. A spark set light to the gas, which blazed high above the oil-field. It could be seen from Bucharest, seventy miles away, and the people of Moreni were able to read their newspapers by its light. There were many successive explosions. In the effort to put out the fire several lives were lost. Tunnels were dug to draw off the gas before it reached the air, but these only lessened the height of the flame. An American engineer tried to dynamite the fire out, but he failed. The engineers finally returned to their tunnelling method, which reduced the pressure so much that the fire eventually went out. Then dirt and water had to be pumped into the openings at high pressure, in order to confine the gas in the earth.

PENGUIN ISLAND is near the edge of the Antarctic, and is a rock no more than four miles square. Every year, at certain seasons, 5,000,000 penguins come to rest on it. Although penguins spend more than half of each year on islands, their natural element is the sea. Fish, particularly a variety of small sardine, is their only diet. For swimming, the penguin has an arrangement by which a transparent film comes over his eyes when he touches water. Another system protects his ears, by exuding oil to make a waterproof feather covering for them. There is a little bag in the side of his throat, which he fills with air before he submerges. He can swim almost as fast as a shark. In February and in September the penguin returns to his native island, and if he has not already a mate sets out to find one. Penguins are, by nature, models of happily married life, and are very affectionate toward their mates. When a penguin moults, he is unable to dive because his loose feathers buoy him up. Since he invariably catches his food under water, he must endure starvation until his new feathers grow. Even then, some of these birds, to cure their excessive buoyancy, have been known to swallow stones as ballast. Then, when he is satisfied that underwater swimming is possible, he sets out for the fishing grounds, where he stays until the next breeding season.

The HEALTH of the EXPECTANT MOTHER

Suggestions for Maintaining the Body in the Highest Degree of Health

By Eulalia S. Richards, L.R.C.P., L.R.C.S. (Edin.)

AT no time during the life of any women is the care of her health of greater importance than during the period of expectant motherhood.

During all of the months of eager watching and waiting, her first thought should be for the welfare of her unborn babe. How gladly should she sacrifice, if need be, her own ease and pleasure, that her child may be well born, with a sound mind in a sound body and with clean, healthy blood coursing through its veins.

If only our young men and women who wed would give more serious thought to the culture of radiant health, it were well for their unborn children. If they would but realise that indeed "No man liveth unto himself," it would bring untold advantage to the coming generation.

But returning to our subject—the closest possible relation exists between the expectant mother and her child.

The unborn babe draws its air, its food, its drink from the mother's blood stream. The wastes from its little body are eliminated through the mother's excretory organs. Hence all of the mother's vital organs are on double duty during the period of expectancy. How

needful, then, that she should insure her child's health by maintaining well her own.

She should fill her lungs always with clean, pure air. She should veritably live in the sunshine! For her, no dwelling in dark, close, ill-ventilated rooms, but rather in God's great out-of-doors.

The Expectant Mother's Diet

She should choose her food also with the greatest care. If she were building a home, she would surely select the best possible materials for the carrying out of the architect's plan. In this instance she is building a house not made with hands, a wonderful replica of herself or her husband. She is building a new individual, a wee morsel of humanity, yet freighted with the most wondrous possibilities. Surely she should not give to the building of her offspring less thought than to the building of a house of wood and stone!

Thus if she is a wise mother, only pure, clean, wholesome foods will go to the upbuilding of the child's body. Fruit, cereals, vegetables, nuts, milk, and eggs are wholesome foods, which make for the health of both mother and child.

Very little, if any, meat should be eaten, as flesh foods always burden the



kidneys with needless wastes and the mother's kidneys are already doing full duty during pregnancy. For the same reason, alcohol, tobacco, and even tea and coffee, should be discarded by the expectant mother, as their use alters her blood in such a way as to lessen the vigour of her unborn child.

Should the woman suffer unduly with sickness during the early weeks of expectancy, she should consult her physician, as a remedy has now been found which gives relief in the majority of cases.

Exercise and Rest

The expectant mother should concern herself not only with the matter of suitable diet, but also with that of necessary exercise and rest. To maintain the body in the highest degree of health, some exercise is needful daily. The various movements incident to light housework, are well suited to the woman's needs. However, in addition to such exercise as is entailed in housework, there should be some out-of-door activity every day.

Walking is an excellent exercise, stimulating as it does nearly every muscle in the body. Walking quickens the respiration and circulation, gives one a keen appetite, and increases the power of digestion. A little light gardening may suit some very well, but care should be taken not to strain one's self or over-tax the strength.

Every woman should study to spend as much time as possible in the open air. Needlework, and many other tasks, may be done on the verandah.

Periods of rest should alternate with the hours of work. Several times daily the expectant mother should lie down and rest, even though she can spare but a few moments. She is likely to enjoy refreshing sleep at night, if her waking hours are largely spent in the open air. If she can sleep out, she is doubly blest.

Clothing

But little need be said of the clothing of the expectant mother. Dame fashion has forsaken so many of her past follies that it is now quite possible for a woman to dress comfortably and yet smartly and becomingly. We need mention only one or two matters as regards dress.

During the later weeks of pregnancy it is well for the woman to wear maternity corsets. This is a garment cut on straight lines, with insets of elastic, and extra lacings so as to insure its fitting comfortably the changing figure.

A very satisfactory and comfortable garment can be purchased at a low cost. The maternity corset, while not an absolute necessity, is certainly of great benefit, as it affords the support of which the woman feels so much in need. Further, as it

is provided with several pairs of hose suspenders, it obviates the necessity of wearing elastic garters. This is well, for the wearing of garters is a common cause of varicose veins in the legs, and the pregnant woman is more likely than others to develop this trouble.

During the winter, the woman's clothing should be light and evenly distributed. It is a mistake to clothe the body warmly and leave the legs and feet but thinly clad. Insufficiently clothing the legs in cold weather is a common cause of various internal inflammations.

To Avoid Kidney Complications

Inflammation or inefficiency of the kidneys is one of the most serious conditions that can complicate pregnancy. For this and other reasons, we would advise the expectant mother to seek early the advice of her physician, to follow conscientiously this advice, and to report her condition from time to time throughout the period of expectancy.

Dental Work

Another matter deserving mention is the care of the woman's teeth.

Many persons believe that it is unwise, if not actually unsafe, for a woman to have any dental work done during pregnancy. This is indeed a grave mistake. If pyorrhœa or a gum abscess is first discovered during pregnancy, it should certainly be treated without needless delay. The poisoning of the blood consequent upon pyorrhœa may have the most serious effect upon the health of the mother and of her unborn child. With modern methods of painless dentistry, any necessary dental work may safely be performed during the period of pregnancy.

Avoid Constipation

Constipation is another disorder that plays havoc with the health of both mother and child. Every precaution should be taken to ensure regularity of the mother's bowels. A few hints may be acceptable.

For the prevention of constipation, pay close attention to the following:—

Regular meals. Regular habits.

The free use of fruits, vegetables, salads, whole-wheat products; and wholesome fats, as cream, butter, olive oil, and ripe olives.

The free drinking of water or lemonade before breakfast, on retiring and between meals.

So far as possible, discard laxative medicines, using instead a tablespoonful of mineral oil on retiring and also before each meal if required.

The taking of suitable out-of-door exercise daily according to one's strength.

*Not what you save, but what you share,
Will lighten your own heart of care.
And joys can best be multiplied
To the extent that you divide!*

—Vera M. Crider.

JUST SUPPOSIN'

By Louis A. Hansen

SUPPOSE there is a question as to how much we should believe concerning the disease dangers of doing things that the health teachers tell us we should not do, may it not be possible that there is, after all, much truth in what they say? No doubt some men make strong statements, and at times modifications must be made to certain views. Medical science does advance, and on the whole, it is fairly definite in its findings. The fact that it does not give us statements which claim the ultimate and final as to findings, is ground for confidence that its research and results are in the right direction.

Suppose there are extremists and fanatics who overemphasize certain points, does that in any way affect what is fact? Because some are eccentric, off centre, does not do away with pivotal truth. Some people may stand so straight they lean backward, but that is no reason for not standing at all. Going too far will pass the health goal, but we must go far enough if we are to reach it.

Suppose a person here or there who has used tobacco, intoxicants, or some other bad thing most of his life, happens to live to a fair old age, does that prove others can do it? Does it indicate that there is no value in abstinence from these things? Who knows how much longer or better a person with a good constitution might live if he did abstain from things that harm?

Suppose it is a fact that tobacco affects the heart, poisons the blood cells, injures the nerves, hurts the eyes, and does the various other things the doctors say it does, would it not be well to be on the safe side? A tobacco heart is poor compensation for the gratification of a smoke. Unsteady nerves may make a great deal of trouble. Impaired vision is serious. The non-smoker surely loses nothing worth having, while the smoker gets some things he would better not have.

Suppose that the question of what we eat is important, as dietitians would have us believe and to which the doctors agree, will it not make considerable difference to us whether we pay heed or not to food requirements? If it is a fact that the body builds its tissues and makes its blood from the food supplied it, can we count on a sound organism and a healthy blood stream if we eat inferior food? Will our indifference alter the building process or change the food?

Suppose, as seems fairly reasonable to believe, that all foods are not alike in their nutritional uses, would it not be well to know something of their various properties and their places in the balanced diet? Is it safe to disregard dietetic instruction, and than eat anything we please and as we

wish? Where do the various nutritional disorders come from if not from our eating? And if wrong eating brings disease,—and doctors tell us it is responsible for a great many of our ailments,—might not right eating give us health?

Suppose this matter of regularity in eating does have its health advantages and irregularity works against good digestion, is it not better to follow the former? Are not digestive comfort and freedom from dyspepsia worth the effort to keep steady hours in eating? And this does not mean to eat steadily all hours. It does seem fair enough to give the stomach a chance to rest, and surely it can't help breaking down if it doesn't have it.

Suppose we might really be mistaken when we think our stomach can digest anything and we eat accordingly, need we be surprised if the stomach does not live up to our expectation? Is not the stomach worth considering as to its limitations? New stomachs are not easily had, and patched-up ones are not worth much; is it not better to keep our own well?

Suppose, in spite of our preference otherwise, that a certain amount of sleep is essential to well-being, need we be surprised if we suffer when we do not get it? If so many hours of the twenty-four are needed for rebuilding the body and recuperating its forces through complete rest, can we expect to keep in normal health when we rob the body, night after night, of a portion of its sleep period?

Suppose there is such a thing as breaking down from overwork, too much study, constant confinement to one thing, is it best to wait till the breakdown to take a rest? Would it not be better to balance the programme now and leave out the break, that might otherwise come later? A voluntary rest is much better than an enforced one.

Suppose the many advertisements that tell how easy it is to get well of various ailments might not tell the truth, would it not be a risk to rely on them? Is it safe to disregard preventive measures in the hope of an easy cure. Would it not be better to do what is necessary to keep well? Disease is not cured by taking something. To get well we have to do the things we failed to do in the first place.

Suppose that instead of really curing disease, patent medicines and nostrums only make matters worse, is it not a pretty risky thing to use them? If, as medical authorities tell us, the apparent relief which they seem to give, is due to the opiates or stimulants which they contain, can there be any real benefit in their use? Are we not losing time and money to dally with (*Turn to page 30*)

CHINA'S FLOOD

By

Edwin R. Thiele



The illustrations given show the Shanhi Sanitarium and Hospital, with staff. This institution daily ministers to the needs of many of the sick and suffering of China.

THE greatest flood in recorded history since the days of the Deluge of Noah has recently occurred in China. A vast district almost a thousand miles long and averaging fifty miles in width has been the scene of this disaster. The flood had its centre in the Yangtze valley, especially in the Hankow area. Here one of the most fertile agricultural regions in the entire world has been transformed into a scene of poverty, starvation, and utter desolation. One of the greatest manufacturing and commercial centres of China has become a sodden, reeking ruin.

The president of the Chinese nation, General Chiang Kai-shek, returning from a personal tour of inspection of the flooded regions, called upon the entire nation to rise to the present emergency and to do everything possible to cope with this overwhelming disaster. Never, he said, have the fortunes of the nation sunk to a lower ebb than at the present time. In the manifesto issued to the country, President Chiang says "Such indeed is the havoc wrought by the relentless floods that the distress and agonies of the people are almost unparalleled in the history of mankind. The number of our hapless compatriots who have been reduced by this catastrophe to the verge of death and starvation must be well over fifty millions. Words can hardly depict the feelings of oppression and poignant agony that filled me when I witnessed with my own eyes the scenes of death and desolation, of the excruciating sufferings of the injured and famished, and of the living torn asunder from their friends and relatives."

The disaster had its origin in four weeks of incessant, heavy rainfall, which brought forth a deluge of water, transforming the mighty Yangtze into a frenzied, roaring torrent, flooding the entire

countryside till the river itself became lost in a vast inland sea.

Statistics compiled by the General Relief Committee concerning the extent of the flood indicate that the province of Anhui is the worst sufferer in area affected. Percentages of land inundated in the seven provinces most seriously involved are as follows: Anhui, seventy per cent; Hupeh, sixty per cent; Kiangsu, sixty per cent; Honan, forty per cent; Kiangsi, thirty per cent; Honan, twenty per cent; Chekiang, ten per cent. Reports of floods of major proportions continue to come in from almost all parts of northern and western China, but these are largely eclipsed by the terribleness of the Yangtze disaster.

Hankow, the Chicago of China, is in the very heart of the flood-stricken area. Practically the entire city was under water, the waters of the Yangtze having reached the highest mark ever registered. On August 19 the depth of the river was fifty-three feet seven inches, which was about seven feet above the level of the bund, or embankment along the river front. All the streets of the city were from five to ten or even fifteen feet under water, while twenty feet of water covered the race course. Except for distant hills, the only dry land visible in Hankow was at the entrance to the Peiping-Hankow Railway station.

Many Forms of Death

Many houses have gone down in ruin, their walls and foundations weakened by the prolonged inundation and the force of the waters when lashed into fury during raging storms. Terrible scenes were witnessed as the flood victims, finding themselves deprived of their last shelter, fell prey to the waters eager to engulf them.

A vast district almost a thousand miles long and averaging fifty miles in width has been the scene of this disaster.

Business is at a standstill. Factories and mills have all been put out of action by the flood, and many of them have been irreparably ruined. The complete cessation of the industrial life of the city has thrown almost all the inhabitants out of employment and into direst want. Already living at the very lowest ebb, even in the most palmy days, the present status of the people is desperate indeed. Having lost their homes and all the material things of life, without money, without shelter, without food or water, the victims still cling desperately to life.

Famine and pestilence have followed hard upon the flood. Not only have existing stocks of food been destroyed, but all hopes of a harvest from one of the richest granaries of China have been banished for some time to come.

Many of the people drank of the waters of death lapping at their feet. The water was thick, yellow, and warm—a veritable potion of death, carrying as it did the corpses of men and of beasts and all the filth and corruption of the ravaged countryside. There were absolutely no sanitary arrangements. In many places the stench was horrible beyond words. Armies of mosquitoes appeared and made still more wretched the plight of the unsheltered, unclothed populace. Typhoid fever, cholera, malaria, and dysentery have made their appearance among the wretched survivors.

As if these things were not sufficient, fire came to add its bit of woe to the destruction already wrought by famine, pestilence, and flood. Here and there over the stricken city, fires mysteriously appeared in the ruins that the angry waters had left. Fingers of accusation have been pointed at communistic elements bent upon making capital out of the present plight. The most spectacular fire occurred as two *godowns* [warehouses] of the Texas Oil Company containing two hundred thousand barrels of gasoline and petroleum, went up in flames. Huge steel drums used as containers for the oil were hurled as high as two hundred feet into the air. The burning oil spread itself out upon the flood, endangering everything in its path.

It is a physical impossibility to give an accurate estimate of the damage wrought by the flood. But it is thought by the most reliable authorities that two million lives have been lost by the inundation and its attendant scourges. Four million homes have been destroyed, and a material damage of Rs.80,00,00,000 entailed.

Heroic efforts have been put forth in behalf of flood relief, and already order is seen coming out of the prevailing chaos. The police and military have accomplished much against heavy odds in preserving a semblance of order, and in keeping the unruly elements in check. Refugees have been herded into camps, and food has been supplied free of charge to those most needy. Clean water has been carried about the city by means of junks and has been supplied to the refugees. Strenuous efforts have been put forth to provide medical attention as far as possible. Yet the means available have been altogether inadequate to cope with the tremendous problems that the flood brought. The herculean task of rehabilitation still lies ahead.

What Does It Mean?

A perusal of the ghastly horrors and the terrible sufferings of this disaster leave one dazed. What can its meaning be? Why does China need to suffer thus with woe only piling on woe? Thoughtful Chinese say that the dragon has been offended, and read in the welter of famine and pestilence and flood an evidence of heaven's stern rebuke for the offenses that have been committed against it in this distracted land. And who will say that in their instinctive reasoning there is not an element of truth? (Turn to page 26)



How the

BODY WORKS

II. Bone and Muscle

By D. A. R. Aufranc, M.R.C.S., L.R.C.P. (Lond.), L.D.S., R.C.S. (Eng.)

THE skeleton, or framework, of the human body is composed of a hard substance called "bone." Although bone is so hard, it is not the hardest tissue in the body. The hardest of all substances is enamel which covers the biting surfaces, or crowns, of the teeth.

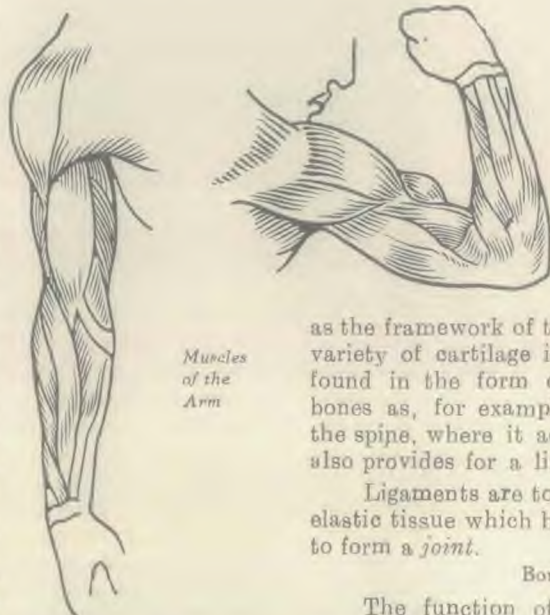
Bone consists of a fibrous network in which is deposited the calcareous matter. Running through the bone substance are large numbers of tubes, or *Haversian canals*, through which pass the arteries, veins, nerves, and lymphatics. Arranged in rings round these canals are large numbers of special cells. These are the *osteoblasts*, or bone cells, and when damage is done to the bone, these minute cells are able to effect repair by laying down new bone.

The bones of the body vary greatly in size and shape. Some are long and slender, such as the bones of the thigh and upper arm. Others, such as those of the hand and foot, are short. A few, like the knee-cap, are flat, while the jaw and pelvic bones are termed irregular.

The Skeleton

The complete skeleton, or osseous system, consists of two hundred bones. These are distributed as follows: in the head and face twenty-two; in the trunk fifty-two; in the upper extremity sixty-four; and in the lower sixty-two.

Bone is rather a heavy material and chiefly for this reason most of the bones are not solid throughout. This applies especially to the large bones of the limbs. Towards the centre the bone becomes looser in texture and more porous. In the centre is a cavity which is filled with a substance called *marrow*. The red variety of marrow is the substance from which the red blood cells are formed.



Muscles
of the
Arm

Cartilage is a substance very closely allied to bone. There are three varieties. *Hyaline*, the commonest form, is found at the ends of the long bones and of the ribs, and serves as a connecting substance. *Elastic* cartilage is found in special structures where more elasticity is required, such

as the framework of the ear. The third, or *fibrous* variety of cartilage is the toughest of all. It is found in the form of discs interposed between bones as, for example, between the vertebrae of the spine, where it acts as a shock absorber and also provides for a limited amount of movement.

Ligaments are tough bands of white fibrous or elastic tissue which bind the ends of bones together to form a *joint*.

Bone Hygiene

The function of the skeleton is to form a protecting framework for all the organs and to support the body. The bony skeleton is not so liable to disease as other parts, once it is developed. Proper development of the bones is most essential, and the early years of life are, therefore, very vital in this respect. Correct diet and proper exercise are by far the two most important points in forming healthy bones. The diet of the mother during the nursing period must not be overlooked. All the elements of a correct diet must be found in her and in the young, growing child. Vitamins are especially important. Vitamin "D" is now known to prevent and cure rickets—a disease which not very long ago was very prevalent amongst English children.

It is not wise to use animal food to form bones. Plenty of fresh fruits, grains, milk, and vegetables, with the addition of some nuts, eggs, butter, or cream provide all the elements that Nature can possibly require.

Exercise is also important for correct bone development, but provided a child is healthy, there is no need to worry about this; as every child provides itself with this in plenty. The exercises, however, should be taken in the fresh air, and on no account should healthy children be kept indoors.

(Turn to page 29)

Oranges and Lemons

and

Some Other Things

By A. B. Olsen, M.D., D.P.H.

THE daily use of fruit, both fresh and stewed, is one of the best means of insuring good health and preventing disease and especially nutritional disorders. Few people, even among fruitarians, recognize the dietetic medicinal value of citrous fruits, and are more inclined to look upon them as dainty and delicious titbits rather than anything of importance to health. Of citrous fruits we have oranges of different varieties, then there is the grapefruit, or we might call it the giant orange, aromatic and tart and somewhat pungent, which is none the less an agreeable fruit with which to start breakfast in the morning. There are the dwarf oranges, known as tangerines, or mandarins, which are also highly aromatic and possess a spicy flavour. And then there are also lemons and limes, which are still more acid and are popular everywhere for the preparation of appetizing fruit drinks.

Either lemon or lime juice makes a good substitute for vinegar, and can be used equally well as a dressing for various salads. Sliced oranges served with fresh diced apples make one of a large number of appetizing and delicious fruit salads.

Citric acid, which accounts for the sourness of all these fruits, is both a safe and natural anti-septic for fermentation in the stomach or bowels. Germs cannot grow in the presence of citric acid. A glass of plain lemonade in the proportion of one to two teaspoonfuls of lemon juice to half a pint of water taken hot or cold one hour before breakfast, serves as an excellent cleanser of the stomach and bowels, and at the same time has a gentle laxative effect. It is a mistake to add sugar to the lemonade when it is to be used medicinally, but when it is merely a question of an attractive and refreshing drink, the sparing use of sugar makes the preparation more palatable for the majority of people.

Citrous fruits have long been recognized as a valuable remedy for persons suffering from obesity. Advantage of this fact has been taken by the patent medicine vender, for, according to an analysis by the British Medical Association, a popular obesity cure consists mainly if not entirely of a little citric acid. But it would be much more satisfactory and wholesome to take the drink made direct from the fresh fruit.

Lemonade, lime juice, orangeade, and the fresh fruit itself have a gentle stimulating effect upon the kidneys, and may truthfully be described as mild diuretics. An irritable bladder, too, is relieved by the free drinking of lemon water.

There is no more refreshing drink for the feverish patient than freshly prepared lemonade or orangeade, which, sipped cold or iced, serves not only to moisten the mouth but also to reduce the temperature. Drinking one, two, or three pints of hot lemonade is a valuable means of helping to abort the common cold or even a mild attack of influenza, if taken in the earliest stage.

All the citrous fruits have a definite, even though mild, laxative effect upon the bowels, and may therefore be looked upon as Nature's cathartic pills, even though they are large. The juice of one to four oranges taken before breakfast has a marked laxative effect, but those who have fair digestion will find no trouble in taking the pulp, providing it is well masticated, as well as the juice. It is only those who suffer from a delicate stomach or dyspepsia who are obliged to confine themselves to the juice only.

As a laxative medicine, oranges, grape-fruit and tangerines are all about equal in value. If the constipation is marked, it is necessary to take larger doses and repeat the dose before each meal. Even for the little infant in arms suffering from constipation there is nothing better to give than a few drops of sweet orange juice in a little water. All children love fruit, and their desire for it is a natural thing. If children are given fruit freely, including dates and figs, there would be less demand for sweets and chocolates, all of which are really unnecessary. Let the children form the fruit habit rather than the sweet habit, and they will have a very much better chance, as far as their health is concerned.

All the citrous fruits, whether in the form of lemonade or orangeade or in their natural state, are valuable for patients suffering from gout, rheumatism, lumbago, sciatica, neuralgia, and similar disorders, because their immediate effect is to diminish the acidity of the blood. Their free use assists in dissolving uric acid and other wastes that are inclined to gather in the tissues and by this means there is better chance of eliminating them from the system.

Religion WITHOUT GOD!

By W. L. Emmerson

A FEW decades or so ago scientists came to the conclusion that God was an unnecessary supposition and religion nothing more than primitive myth and legend, entirely out of harmony with the enlightened thought of the nineteenth century. According to them matter was uncreated and eternal, the universe had evolved by inherent forces from some primeval gaseous nebula, and life in all its diverse forms was derived by purely chemical and physical reactions from the non-living.

Today a very different attitude is manifest. It is recognised that noble religious ideals reinforce morality, strengthen society, and exert a powerful influence for the progress of civilisation. The value of religion is exalted, and frequent attempts are made to show the relation which exists between it and science.

This change of sentiment would seem to indicate that scientists are becoming religious, and that scientific thought is, after all, entirely compatible with Christianity. Certainly many leaders in the Christian church and many of the laity have this idea, for it is very common now to find those who once recoiled from atheistic science accepting the most advanced views of the new thought.

An Illusory Change

A closer scrutiny of the "religious" science, however, will reveal that the change of attitude is largely illusory, and the modern expressions of religious feeling count for little more than the definite negations of it by scientists of a generation back.

Let us consider for a moment the evolutionary conception of God.

God an Impersonal Force

J. M. Coulter and C. Merle in "Where Evolution and Religion Meet," speaking of the universe as we see it, make the statement:—

"It is all the result of the activities of that all-pervading energy which we have learned to call God."—*Page 101.*

This does not sound like the personal, transcendent Being to whom the Christian renders worship. But we must not judge merely from one source.

We turn, then, to the writings of Joseph A. Leighton, professor of philosophy at the Ohio State University, and read:—

"If you ask, where is God in the creative process? The first answer is, Everywhere. He is manifest in the energy of the electron, in the architecture of the atom, of the human brain, and of the solar systems. God is the infinite and ceaseless formative energy manifested in all

things."—*"Religion and the Mind of Today," page 245.*

God-Made or God-Makers

Professor Alexander of Manchester University regards God not as the universal energy, but as a name for the next higher quality to be evolved at any particular period in time. Thus, according to him, deity is—

"A variable quality, and as the world grows in time, deity changes with it. On each level a new quality looms ahead, awfully, which plays to it the part of deity. For us who live upon the level of mind deity is, we can but say, deity. To creatures upon the level of life deity is still the quality in front, but to us who come later this quality has been revealed as mind. For creatures who possessed only the primary qualities—mere empirical configurations of space-time—deity was what afterwards appeared as materiality, and their God was matter."—*"Space, Time, and Deity," Vol. II, page 348.*

Thus in Professor Alexander's view we are not God-made, but God-makers.

"The Ideal Good"

For Mr. Bertrand Russell, God is "the ideal good which creative contemplation imagines."—*"Hibbert Journal," Vol. I, page 52.*

Professor A. N. Whitehead has a still different notion. For him, God is not a Being having an existence apart from the universe. He is not the end to which all creation moves, nor the all-pervading energy of some other evolutionists. He is neither substance, nor force, nor ideal, but is simply the "principle of concretion," or the "principle of order" of the universe.

And so we might go on, considering hypotheses and theories of God almost without number, but it would profit us little.

Wherever we turn the god of evolution bears no resemblance to the Christian's Creator and Lord. The god of evolution is not a being apart from nature or above nature at all, but is either nature itself, some part of nature or the end to which nature is tending.

A Travesty of Religion

While, therefore, there is a semblance of religion and a religious nomenclature is employed, the conception of the evolutionist is evidently no more than a veiled atheism.

To employ the term "God," in fact, is an entirely unwarranted licence of language and thought. It is a cheating of the mind with "phantoms and effigies of God and religion," when they have been emptied of all their reality. It is religion without God!

Proceeding a step farther it will quickly be realised that if God is not a personal being but merely an impersonal force or ideal, the ideas of reverence and worship are entirely inapplicable and simply mask the real attitude of mind.

Worship connotes the communion of personality with personality, and is inconceivable in any other way.

If God is not a person, then there can be no "reverence," no "worship," no "communion" in the accepted sense of the terms.

Repudiation of Morality

Then, too, this travesty of God cuts away the very foundation of all moral sense.

Human morality is based upon the fundamental assumptions of a lawgiver, a law, and free moral agents having a responsibility to live in accordance with that law, but who are capable of going contrary to it if they so desire. If there is no god but the "spirit of the universe," the sense of accountability is destroyed. If there is no law but natural law to which man is inescapably subject, there can be no such thing as free will. And if there is no free will, then whatever is, is right, or rather unavoidable because natural law can know neither right nor wrong. A so-called criminal act becomes absolutely determined on the basis of biological heredity as the highest ethical conduct.

Self-Contradictory

And here the fundamental contradictoriness of the whole system is revealed. For, on the one hand, scientists seek to preserve religion and morality because of their evident restraining and directing influence upon human nature, and yet the new ideas concerning their nature must ultimately destroy both.

Science Falsely So-Called

Not only are the fundamentals of evolution bad religion, bad morality and bad logic, but the

latest fruits of true scientific research are proving them bad science as well.

Nineteenth-century thinkers imagined that they could explain the universe very well without God, but their successors today are not so sure. Many in fact have come to the conclusion that the order and precision of the visible world are unexplainable except by assuming the existence of a transcendent Mind. Sir James Jeans, for example, in one of his latest works, "The Mysterious Universe," says:—

"We discover that the universe shows evidence of designing or controlling power that has something in common with our own individual minds. . . . the tendency to think in a way which, for want of a better word, we describe as mathematical."—Page 149.

Those, too, who study human experience are similarly coming to the conclusion that man's moral sensibility and religious consciousness testify to the existence of a moral and spiritual Being, by whom these feelings were implanted in human personality, and who intended them to be employed as the media of communion and fellowship between himself and His creatures.

So, after all, the Christian doctrine of a transcendent Being, our Creator and Sustainer, whose essence is truth, beauty, and goodness, and whose desire is to hold and maintain communion with the creatures of His love, provides the only rational and satisfying explanation of the universe and of human experience.

"Scientific" religion which seeks to pass itself off as religion and as science, actually is neither. It is "science falsely so-called" (1 Tim. 6:20) because it is contrary to the latest findings of science, and it is but a "form of godliness" (2 Tim. 3:5), because from its very nature it is devoid of "the power thereof." It is a part of the "philosophy and vain deceit" which the Apostle Paul declared would arise in the last days, and from which the seeker after truth is admonished to turn away. Col. 2:8.

Understanding

This I ask:

O Father, Thy true gift divine

Of understanding. Let me not be blind

To another's pain. Make me capable of seeing

The despair of a heart afraid, and of being

The medium of new courage. Help me to hear

The call from another sent; guide it to my ear,

And, when I can hear and see,

Give me the faith and strength not to be

Afraid to answer the plea

With understanding.

—*Nell V. Huron*

Healing the BODY Through the MIND

By G. H. Heald, M.D.

THERE are a number of reasons why many doctors do not like to admit that the cure of bodily disease through the mind is a legitimate procedure. First, there is so much quackery connected with mental healing; both in the mental healing cults, and with the mental healers not connected with the cults, that few doctors, even when they recognize the influence of the mind on bodily states, have the courage to appear to be in such company. Second, medical schools give an inadequate course in psychology, and little in mental therapeutics, so the ordinary doctor does not usually look upon mental healing as anything having to do with his work. Third, doctors look upon healing through the mind as being without scientific basis.

Yet doctors do not hesitate, when patients, failing to get benefit from doctors, are helped by some patent medicine or through the ministrations of some cultist, to attribute the benefit, if any, to "suggestion," which is admitting that the benefit to the body came through the mind.

The truth is that very little of the doctor's materia medica or of his physiotherapy is beyond an empiric or experimental stage. A heart patient may go to twelve reputable physicians and get a dozen prescriptions, no two alike. Probably any one of these would do some good, but who can say that the benefit to the patient is not more than half the result of suggestion?

It is common knowledge that the mind has a vast influence on the body. What about the movements of the body,—standing, sitting, walking, running, fighting? Are they not brought about by mind? What about the "mouth watering" at sight, or even at thought, of some relished food? the stomach "turning" at sight of some disgusting thing, or at hearing some gruesome story? the appetite failing at receipt of heart-crushing news? the involuntary emptying of bowel or bladder because of some great mental shock? the blush or the pallor following some emotional excitement or embarrassing experience? What is the signifi-

cance of such words as "heartbreaking," "disgusting," and the like, applied to things which affect the body through the mind?

The writer was sitting alone at a public dining table finding little he cared to eat, though there was a liberal menu from which to select. There entered a friend whom he had not seen for a long time. As they sat and talked over old times, the writer ordered and enjoyed a larger meal than he had eaten for a long time, and he digested it better than he would have digested the smaller meal, had he eaten alone!

Why, then, doubt the potent influence, for health or for disease, of mind on body? Hope, courage, and similar uplifting mental conditions have a stimulating effect, which seems to extend to every cell of the body, and despair, worry, and other depressing emotions have a depressing, deadening effect on the body functions.

Some will say, perhaps, "Such treatment is good enough for functional disease, but has no place in the treatment of organic disease. You cannot cure appendicitis or a broken leg by talk." That is true enough. But there is no patient who is not better off for having hope and courage. A person in the last stages of cancer, is much better off if fortified with the hopeful, courageous attitude than if under a mental cloud. I do not mean to say that such patients should be told that they have no cancer, or that they will get well. The true physician is the one who can help such a patient to face his fate with courage and resignation, if not with a note of triumph, ready to die as bravely as did many of the boys on the battlefield or in the hospitals of the Great War—mangled in body, but triumphant in mind.

But a right attitude, one of contentment and resignation to whatever may be in store, does have a favourable effect on the patient's condition in affections that are considered entirely organic. The highest part of the art of nurse and physician is the creation of such an atmosphere for the patient.

*Give, and thou shalt receive. Give thoughts of cheer
Of courage and success, to friend and stranger.
And from a thousand sources, far and near,
Strength will be sent thee in thy hour of danger.*

—Ella Wheeler Wilcox

SEPTIC THROAT

Preventive and Curative Treatment

By W. Howard James, M.B., B.S.

ANY inflammation of the throat, acute or chronic, produced by disease germs, might be called septic. The term "septic" indicates the existence of germs, but in fact all inflammation, wherever it is found, is the result of these vegetable micro-organisms. Diphtheria, tonsillitis, and all throat troubles are the result of poisonous products excreted by these microscopical enemies.

What is spoken of as a septic throat is one where the crypts or little glands of the tonsil are affected, producing generally a spotted and red condition of the tonsils. These spots, which primarily cover the mouth of the gland only, may increase in size until the tonsil itself may be covered with a thick, sloughing membrane looking very much like diphtheria.

Septic throat is a primary affection of the glands of the tonsils, and the membrane, when formed, is confined to the tonsils. Diphtheria attacks the membranous covering of the throat, and may extend to the adjoining parts. Membrane outside the tonsil is a fairly sure index of diphtheria. When the diphtheric membrane extends to the larynx, the voice box, breathing becomes difficult, and in children may cause death by obstruction and asphyxia; this is the most common cause of death in diphtheria.

Both in septic throat and diphtheria the exudation from the germ-laden membrane may be absorbed into the system, producing blood poisoning, which may result in pneumonia or heart failure. Such absorption may cause high fever; fever is always the result of absorption of these poisons.

A child may develop diphtheria and recover without showing any marked symptoms whatever; it may hardly have been noticed that the child has had a sore throat at all; but the subsequent development of paralysis in the limbs or voice muscles is a sure indication of diphtheria.

Mild cases of diphtheria are more frequently followed by paralysis than are the severer forms; in the severe forms nature produces more antitoxin, which prevents to a large extent the development of paralysis.

Although all influenza conditions of the throat are septic, the term is generally restricted to inflammation of the little, tubular glands of the tonsils. The spots consequently are confined to the tonsils and do not affect the parts beyond them. Once the spots or membranes are seen beyond the tonsil, the diagnosis of diphtheria may be considered as certain. Septic throats, however, may produce symptoms of ill health even more pronounced than does diphtheria.

A Case in the Holidays

Sometimes one is puzzled to account for the existence of these pathogenic germs in the throat. A few days ago the writer was called to a boy scout, living in the forest under the most hygienic conditions, with a very acute septic condition of the throat. Probably the germs producing the trouble had existed in the throat for perhaps weeks while he was in the city; the germs, however, did not develop and produce disease until a chill supervened. This chill would bring extra blood to the throat, produce food for the germs, and the disease then quickly developed. Good, healthy blood will destroy germs; but when any part becomes congested through a chill, the blood loses this power. Abundant supply of white corpuscles (phagocytes) is essential for the destruction of germs.

Any condition that coats the tongue will also have an injurious effect on the lining membrane and glands of the tonsils; they then lose their natural power of destroying germs. The purpose of the tonsils, it may be mentioned, is to attract the germs in inspired air to their surface and then destroy them; it does this more effectually when the air has been warmed by passing through the nose. Mouth breathers are much more likely to contract germ diseases.

Value of Fruit Juices

The juices of ripe fruits have a cleansing effect on the tongue and lining membrane of the stomach; this is recognised by all authorities. They have also a beneficial action on the tonsils and help them to do work more effectually. The juice of such fruits as those of pineapples, oranges, lemons, apricots or peaches are all beneficial in this respect. They are good as preventive and also as curative treatment.

To avoid sore throats, one should live in the open air as much as possible, breathe through the nose, keep the stomach in a healthy condition, and eat ripe, juicy fruits freely. Dusty, close atmospheres, as in concert halls, railway carriages, and ill-ventilated bedrooms, increase the liability to throat affections. This is also true of rich foods.

Treatment

In acute septic throats with a temperature of 100° F. or more, the patient should be confined to bed in a well-ventilated room. Cold, fresh air is very beneficial to an inflamed throat. The bowels should be well-opened and thus lessen congestion and the unhealthy condition of the mouth and throat cavities. Food should be of a very light nature and consist largely of (*Turn to page 27*)

The Great WHITE PLAGUE

It Can Be Prevented and Can Be Cured

By
Hans S. Anderson,
Dietitian

A pure-bred Holstein cow. The diet for those suffering from tuberculosis must be rich and highly nutritious and should be liberally supplied with milk and cream.



TUBERCULOSIS, caused by a microscopic organism, or disease germ, is an infectious disease; and even though it can readily be transmitted from one person to another by close contact, it is preventable and curable. Until recently tuberculosis in its various forms was the most frequent cause of death, being responsible for from one seventh to one tenth of all deaths, and was rightly termed the "great white plague."

In more recent years, as a result of the great nation-wide educational campaign carried on under the efficient leadership of our public health societies and other patriotic organizations, intelligence with reference to the cause and prevention of this disease has been broadcast so that most persons now know that the disease is curable, and that many who have the infection do not die of it. Although there is reason for fearing this disease, it should be definitely known that tuberculosis is *preventable* and *curable*. The vital statistics of the United States show that the death rate from tuberculosis during the years from 1900 to 1928 gradually fell from 202 in each 100,000 population to 79. Possibly one of the most convincing evidences that it is possible to recover from tuberculosis is the fact that in civilized countries and in thickly populated districts nearly all persons at some time in their lives become infected with the tubercle bacillus. And since nearly 100 per cent of all persons become infected in youth, not more than 10 per cent of whom die of the disease, the other 90 per cent must recover from its effects.

Children are frequently infected with tuberculosis. This is especially true where there are consumptives in the house who are careless; or the

infection may come from tuberculous milk. About 80 per cent of infants who contract tuberculosis in the first year of life die of it. About 25 per cent of the children contracting tuberculosis in the second year die of the disease. If infection takes place after the third or fourth year, the children have a much better chance for life. Investigation has proved that in crowded communities practically all children, before they reach the age of fifteen, become infected. Consequently every precaution is put forth to prevent this infection during the first few years of life. After the earliest years of childhood, definite tuberculous disease rarely manifests itself, although the infection may be present.

Acquired Immunity: The above facts bring before our minds the very interesting question of immunity from various diseases, including tuberculosis. By immunity is meant the resistance of the body to disease germs that may enter the body. Possibly of greater importance than the white blood corpuscles (called the body fighters against the invasion of disease-producing bacteria) is the presence in the blood of certain chemical substances that possess the power either to destroy the bacteria directly, or to neutralize the poisons they produce. These chemical substances are called "antitoxins." Some of these substances exist naturally within the blood plasma, while others are produced by body cells after infection takes place.

In a large majority of persons, the entrance of the tubercle bacilli into the body causes the formation of a small spot, or focus, of disease; and the very presence of this small diseased area and the poisons the germs produce in their growth cause

the body to "react" against the disease germs so as either to check their further growth or destroy them entirely. Furthermore, the presence of these few germs and small spot of the disease which they cause make the body resistant, or immune, to the growth of other tubercle bacilli that may make their way into the lungs or other tissues.

The care of all infants should be planned with the end in view of avoiding danger from tuberculous infection, especially during the first two years of life. This is especially true in a family where the parents or others have consumption. For instance, the father who has open tuberculosis should not live in the home where there are little children. Likewise, a mother suffering from tuberculosis should not nurse her young infant, and should not even herself have charge of the infant. The child should have its separate bed and separate room. The floors where little children play should be clean, and there should be sun and fresh air in the room or rooms. The child should be provided with uncontaminated milk. If milk absolutely above suspicion cannot be secured, then it should be heated sufficiently to destroy disease germs, and then quickly cooled before using.

To prevent tuberculosis in older persons, it is necessary to keep the body fighting forces in such a state of health and resistance to diseases in general as will not allow the tubercular germs that are already in the body, or that may enter the body from the outside, to gain a foothold or produce disease. These tubercle bacilli gain a foothold for their destructive work as a result of lowered vitality. When the bacilli attack the tissues, the white blood corpuscles surround them by way of counterattack. When the body's reserves are built up to normal, these little corpuscle warriors are able to destroy the bacilli, or at least to keep them at bay.

All of the various organic mineral constituents provided so abundantly in foods near to nature, together with the more or less undefined food factors called vitamins, are absolutely necessary to the building up of the blood corpuscles and of the body's reserves against an invading enemy. As the iron contained in normal soil imparts to the leaves of plants their characteristic green colour, so also does the organic iron derived from plants and seeds, when taken in their natural state, build the new red blood cells, and give the characteristic red colour to the blood stream, imparting life and energy to muscle and brain.

Calcium is another important building factor, especially in the battle against the tubercular germ, for the reason that as the faithful white blood corpuscles attack the invading tubercle bacilli, the body makes use of the calcium supplied in the normal diet to build a wall around these minute organisms, thus imprisoning them and preventing further destruction of tissue. As a result of improvement in the general health, chiefly by intensive dieting on foods rich in blood-building elements, the wound gradually becomes calcified and apparently healed.

In performing post-mortem examinations, the surgeon often discovers that a lung of the deceased had at some previous time been half consumed by tuberculosis; and then it was so thoroughly "plugged up" or walled in and so successfully healed that the subject was enabled to live in apparent health for a number of years. Thrusting his scalpel into the wall of the calcified wound, he observes a mass of granular tissue, which he at once tells you is "calcified tubercles," imprisoned by a good and wise Providence, through the means of those wonderful fighting forces that are inherent in every healthy person, and which may be built up and strengthened in those who are ill, until they too regain their health.

Disease and Faulty Diet

Dr. William Olsler, a noted authority on diet, made the statement some time before his death, that "90 per cent of all conditions other than acute infectious and contagious diseases and injuries are traceable to errors in diet." This being admittedly true, it must follow that about 90 per cent of our physical ills can be remedied or cured by correct eating and drinking, or by selecting and combining our food and drink so that the whole will be chemically harmonious.

Those who are in a position to study the problem from the standpoint of cause and effect acknowledge that as a general rule disease attacks those who for some time have been living on a more or less impoverished diet, and whose vital resistance in consequence has been lowered. Such a course in eating and drinking starves the cells and lays a heavy tax upon the nervous system, which is the great regulator of the body.

Tuberculosis, as we have found, is due to a specific germ, which could not get a foothold in the body without the encouragement of lowered vital resistance and tissue degeneracy. Every day, about five hundred persons in the United States die of this terrible malady,—about 150,000 a year. There are more than 500,000 persons in the United States that are constantly suffering from this preventable disease.

Dr. L. B. McBrayer, secretary of the North Carolina Tuberculosis Association, in reporting his findings as the result of examination of school children in Mecklenburg County, said: "Twin ills, undernourishment and tuberculosis, are making great inroads among the school children of North Carolina."—*Asheville Citizen*, Jan. 17, 1927. He declared that 10 per cent of the 14,000 school children in Mecklenburg County are suffering of tuberculosis, and that this condition prevailed throughout the state, where he estimated that approximately 30 per cent of the state's 900,000 children were under nourished.

The Dietary: In planning the course of treatment for the tubercular patient, there are two factors that must be taken into consideration. First, does the patient have a fever? and secondly, is he obliged to work, or may he spend his time in quiet rest? In this wasting disease the vitality is below par, and for every (*Turn to page 27*)

The BURDEN

By T

EVERY nation wants peace, I verily believe, but nations are self-centred, and fear and distrust are with them tremendous factors still." These are the words of Rt. Honourable Arthur Meighen, quoted in *The Chate-laine*. "Peace" is a burdened word. Thirteen years of waiting have destroyed the hope of many. Much has been said and much has been done in the name of peace. Nothing has weighed more heavily upon the shoulders of conscientious statesmen than the problems of international accord.

Disarmament is the cry of the hour. Limitation of armament conferences are the fashion of the moment—the expense of the taxed public. Never has peace been more desirable; never has peace been more essential than in our decade. Never was war more taboo; never was war a more dreaded catastrophe than in this young and burdened year, 1932.

A world just crawling out of a period of economic reverses shudders at every metallic clang of Mar's armour. No nation can afford the expensive preparation necessary for another war. Yet, every nation fears the militaristic strength of its neighbours and seeks to out-marshall those who are marshalling and numbering their military forces. Convention minutes groan with the weight of wordy resolutions, fine-spun peace-theories, and deftly-worded alliances. Men face each other across the parley tables and while one hand holds the pen that signs a treaty, the other rattles the sword. Mankind agrees but does not trust. Selfishness still rules in many hearts. A selfish peace is a burdened peace; and a friendship that is half-hearted and half-handed bears all the earmarks and falterings of failure.

Arming for Tomorrow

The late Georges Clemenceau in "Grandeur and Misery of Victory," said, "Ambitions and falterings—they belong to humanity in every age." France's tiger of yesterday was speaking specifically of individuals of his generation. The new generation has learned little from the mistakes of 1914. If our decade agrees with the former American Secretary of State, Frank B. Kellogg, it does not practise it. He says, "I don't believe in any new European war. There are many problems in Europe, many of which have already been solved and others of which will be solved."

Guglielmo Ferrero, one of Europe's foremost historians, voices a quite contrary opinion when he writes for the *New York American*, (Feb. 1931) as follows:

"For six months the barometer of public opinion in Europe has marked bad weather and announced storms. Only war has been talked of and only war thought of. It has become an obsession. The fear of the governments and the newspapers has descended to the masses. In how many of the fields of Europe brows grow worried as the peasants gather around the fire in the evening, talking of the future? Will the old and new generations see once more the terrible events of the World War?



"I do not remember, even in the years that preceded the catastrophe of 1914, so universal and acute an anxiety. Then the world feared war in theory, but did not know what species of war was about to devastate the world.

"Now the world knows. Indeed, it fears horrors even greater than those it saw and suffered in the four years of the World War. It is whispered everywhere that the chemists have not slept for fifteen years in their diabolical caverns where they are preparing gases and explosives."

Mussolini Speaks

Every nation today has its men who are its authorities on the matters of armament. No man in Italy can speak perhaps, with more clarity and force upon that national condition than its premier, Benito Mussolini. He says Italy is not willing to be an earthen-pot hung over fire between two iron-pots, and continues:

"When the World War broke out we were in the position with the whole of Europe armed to the teeth. Italy had to pay heavy tribute for its insufficient preparation.

"In such a tragic situation no single nation can run the risk of beginning first. There must be first of all a general agreement to reduce contemporaneously.

"And right here seems to be the great knot in the case, because some of the powers do not want to move

of PEACE

reis



Shalimar Gardens
in Srinagar, Kashmir.
A quiet peaceful
retreat

the settlement of the disarmament problem unless security is first guaranteed. They begin by saying that security comes before the limitation of armaments, and that when they are assured of this security, they will accept limitation.

"Well, this is just chasing the question around, for, if we disarm simultaneously, then the security question is settled by the general tendency of all to reduce their military establishment.

"The size of a people's armed forces is dependent upon the size of the armed forces of their neighbours and those whom they regard as enemies and from whom they may expect an attack. But if the latter disarm then the former's security is assured, and they, too, can disarm.

"If all base their intention of disarming from the first on the question of security, and this security demands a certain fixed number of units in the army, navy and air force, disarmament is deadlocked, because, no matter how well-disposed their neighbours would be to reduce, the security question itself is guaranteed for the one nation only by the reduction of the armed forces of the other.

Wholesale Destruction

The next war will not resemble a war as conceived in the days when armies camped about fortresses or when Cuirassiers dressed battalions made their charges on the Marne, or Vimy Ridge. Such warfare will be as obsolete as

the old ball muskets of the days of Wolfe and Montcalm. The next war will not have the slightest tinge of fair play or decency about it. But to use the words of the Rt. Honourable Arthur Meighen in his address before the World Alliance for International Friendship, as quoted in *The Chatelaine*:

"Civilization has to end war, or war will end civilization.

"Do we believe that to be true or do we not? If we do not, it surely is time we did. And if we do, then this race of human beings must adjust itself to tremendous new facts or pass out.

"What are those facts? The chief one is this: Science has given us so great a command over the elements of nature that millions can be snuffed out in this day in a mere matter of moments. Where hundreds fell before in manly contests arm to arm, great cities, now, the whole countryside, can be eaten up the insatiate maw of chemistry.

"As soon as war got into three dimensions—that is, got into the upper air and under sea, as well as on the surface—vast possibilities were opened up. When you get into three dimensions, weapons come into play which cannot be matched with other weapons and the issue decided as it has been decided in the past by a test of strength and skill. . . .

"In the air attack on Whitsun in 1918, there were only thirty-three planes carrying on the offensive, and of these only six were lost, although they were opposed by 100 British planes and as well by 800 guns, 400 searchlights, and a whole division of troops. Have we any idea of what the submarine and airplane of tomorrow can accomplish? Why, the French today can drop in raid 120 tons of bombs ten times the war maximum in weight, and every ton ten times as powerful in explosive destruction.

"There is death and desolation multiplied one hundred times already. In a single factory in Germany there is produced now 2,000 tons per day of nitrate of ammonia—a compound which can be quickly converted into the most terrible of explosives. In the whole course of the Great War there were dropped in England only 300 tons.

"We have had British experts and American experts arguing as to how many cruisers each country should be allowed. General Groves is authority for the statement that 100 modern planes in ten minutes can lay a cloud of poison gas from 50 to 150 feet thick over an area of 100 square miles. How long would a thousand cruisers last against a weapon like that? Airplanes travelling 300 miles an hour, undetectable by sound can carry gas bombs which would depopulate London. The only way these weapons can be met is by reprisals. Reprisal will follow reprisal until the civil population passes—this nation today, that nation tomorrow—by millions into eternity."

To add weight to Mr. Meighen's words here are those of an English booklet published by the British War Office, entitled, *Manual of Medical*

Aspects of Chemical Warfare. We quote but two paragraphs from the thought-provoking booklet:

"In man, slight and transitory nasal irritation is appreciable after an exposure of five minutes to as little as one part of diphenylchloroarsine in 200 million parts of air, and as the concentration is increased the irritation shows itself sooner and in rapidly-increasing severity. . . .

"There you have the modern gas. . . . It is not a matter only of people who are going necessarily to be killed. Even a bad attack of gassing would not be very pleasant. A remarkable feature of the severe gases is the intense mental distress which accompanies the symptoms.

"Even slight cases feel and look miserable until the irritation passes off, and the picture of utter dejection and hopeless misery furnished by severe cases has no counterpart in any other type of gas poisoning. Occasionally the physical depression results in the temporary loss of mental control and men have been known to act as though driven mad by their pain and misery. That is a danger which is menacing us now."

A feature writer in a well known magazine says this about the present war preparations: "It is certain that if war is permitted again to deluge the earth—and to *permit* it; all we have to do is *fail to prevent it*—the tactics of the Great War will be as out-of-date as if they had been fought in ancient times. War will be less an affair of men and more an affair of machines. . . . Invisible gases, the suffocation of whole cities without noise, silent horrors of every kind, stealthy assaults by a very few men armed with most potent powers, will be the new order. . . . Ray warfare is already the thesis of military study and experiment on a large scale. Light rays and heat rays are being trained to become the allies of Mars. . . ." But why continue the quotation? We don't like the sound of such sentences. We want to forget war. We are afraid.

Unrest and Fear

Forces of unrest are working everywhere. Either a state is torn by party strife and sectionalism within its borders, or it is bleeding itself to death because of internal corruption. Soviet Russia whips its prisoners in its Siberian forests, condemns and imprisons engineers, tries and

abuses any who dare to show disrespect for its five year plan of industrial-cooperativism.

German editors bewail the fact that her former enemies are forcing her people into the abyss of Bolshevism. Hitler's Nazis march under the imperial flag of fascistic dictatorship. In Germany are the communists who have no love either for the studied Bruening or the galloping Hitler. England, France and Italy each have their troubles. What tremendous problems with what perplexing results! Spain suffers the turmoil of the drawn dagger and rushing troops. South America has had its bloody weeks. China is gang torn. No matter what land we choose to study it is shadowed by a cloud of uncertainty.

In the December first, 1930 issue of *MacLean's Magazine* there appears an article under the name of Norman Angell, M.P. It is entitled, "Another War Coming." Its opening sentences are, "No country in the world has such cause as Britain to realize the evils of multiplying and increasing economic barriers. Yet a section of our people, certainly as important an element in England as the Hitlerites are in Germany, are duly engaged in a campaign of economic imperialism which will give an enormous impetus to the future growth of economic barriers. Canada is following Australia in the erection of a tariff higher, stiffer than any known in its history." The implication of hatred and war is clear and the argument not at all one-sided as subsequent paragraphs show.

We fear our neighbours and we arm ourselves against them. It is a primitive instinct and it will last as long as sin, selfishness and distrust rule in the hearts of men. Indeed the peace of the world is burdened with many premonitions.

It will continue to be so until evil is uprooted, the world cleaned of its dross the human race washed of century-accumulated vices, and the perfect Eden of heaven is restored. How will that take place? The Prince of Peace says, "Behold I create a new heavens and a new earth: and the former shall not be remembered, nor come into mind." We can prepare for that hour not by fearing the unrest of our time, but by seeking the path of truth and weaponing ourselves with a peace of heart that no avalanche of war can destroy.

A True Record

*Four things a man must learn to do
If he would make his record true;
To think without confusion clearly;
To love his fellow man sincerely;
To act from honest motives purely;
To trust in God and heaven securely.*

—Henry Van Dyke

The FALLACY

of an

"EIGHT DAY WEEK"

By Francis D. Nichol

THE proposed plan to establish a fixed calendar by the injection of a so-called blank day at the end of the year, would break the weekly cycle. Some astronomers are very emphatic in declaring that the breaking of such an ancient time cycle would be a very serious loss.

Here is a typical statement by Fredrico Oom, director of the astronomical observatory in Lisbon:

"It is very inadvisable to interrupt by means of blank days the absolute continuity of the week—the only guarantee in the past, present, and future of an efficient control of chronological facts."—*"League of Nations Report on the Reform of the Calendar,"* p. 74.

And here is another statement, by M. Emile Picard, permanent secretary to the Academy of Sciences, France, and president of the Office of Longitudes:

"One essential point is that of the continuity of the week. The majority of the members of the Office of Longitudes considered that the reform of the calendar should not be based on the breaking of this continuity. They considered that it would be highly undesirable to interrupt a continuity which has existed for so many centuries."—*Id.*, p. 51.

Perhaps it is pedantic in these days of rapid change to worry over accuracy in arithmetic, even if astronomers make the computations. And perhaps it is a little old-fashioned to give serious heed to religious commands, even though God be the author of them. But at least it ought to be said that we have God and astronomers on our side. For God commands that the seventh-day be kept holy, and the astronomers declare that the weekly cycle has not been broken. So much may be said *in the interest of Truth*.

The National Committee on Calendar Simplification comes perilously near to making misleading statements when it declares that the so-called blank day "would be an eighth day of the week." What do they mean by an eighth day of the week? Why not a 28th day of the week, and thus have the week correspond with the Cotsworth 28-day month? It would not be difficult to discover enough names for all the extra days. Or why not adopt the Russian five-day scheme, and call it five-day week? That would divide beautifully into 365.

Double Use of Words

There is just one defect in such handling of terms, and that is, the revisers are taking a word

which has well-defined and long-established definition, and giving to it a new meaning all their own, in an attempt to defend their calendar scheme against religious objection. The word "week" is understood by all to mean a cycle of seven days, and even the *Encyclopædia Britannica* comments upon the unique fact of this seven-day cycle, and how it is not an aliquot part of any other time cycle.

And when we trace the word "week" back to its original setting in Old Testament writings,—and it is the religious aspect that interests us,—we discover that the very word translated "week" in our Old Testament comes from a Hebrew root meaning "seven." Thus the very origin of the word, as well as the clear-cut understanding of it as given in the dictionary, and as understood by all people, does not honestly permit of such a phrase as "the eighth day of the week." Literary ethics condemn most severely the use of a word by the writer in one sense, when his readers all understand it in an entirely different sense. Nothing could be more misleading than such a double use of words.

If we could properly speak of an eight-day week, we ought also to be able to speak of a sixteen-day fortnight. That would apparently be good arithmetic, but an absolute perversion of the meaning of words, for our word "fortnight" is simply a contraction of "fourteen nights." Thus again do we find in the very roots of language the fact that the seven-day cycle constitutes the week.

Further Misleading Statements

But the National Committee on Calendar Simplification adds to the misleading nature of its statements by endeavouring to draw a parallel between the second blank day, called "leap day," to be inserted once every four years as June 29, and February 29 which under our present calendar occurs once in four years and absorbs the extra day of leap year. The parallel goes only half way, and therein lies the misleading feature. For while the inserting of a February 29 in our present calendar does not affect the weekly cycle, as we all know, the "leap day" which the calendar revisers propose to insert as June 29, *would* break the cycle, for it would be a blank day so far as the week is concerned.

The Hebrew race through all its history has retained this cycle. In fact, the weekly cycle is as old as the race, and with but few exceptions is in universal use. The astronomers bear unqualified testimony that the week has (*Turn to page 30*)

Courtesy and Kindness

By Arthur Spalding

WHAT reverence is to God, courtesy is to men. Indeed, the two are but different degrees of the same quality; they blend in the child's proper attitude toward his parents. Courtesy is love shining out of the heart. It is more than etiquette, it is more than politeness; it is the thoughtful consideration of others' comfort and interests. True courtesy, therefore, can come only out of a good heart; and if we would reap courtesy, we must plant love.

Courtesy cannot be taught by a commandment merely. As in all other things, example has a more powerful influence than precept. What we are, that, so far as our influence extends, will our children be. We naturally desire to see our children courteous. It is to their advantage, as well as to the blessing of others. But be sure they will, consciously or unconsciously, imitate us. First of all, then, we need to give attention to our own practices in our social relations. Perhaps we shall be surprised to find in ourselves some causes of defects we deplore in our children.

How do we speak to our children? How do we act toward them in our requirements and our restrictions? Children have rights that parents are bound to respect.

The Tone of Voice

Do you know whether you have a sweet voice or a harsh voice? "Oh," says someone, "I can't help the quality of my voice. I wasn't born a nightingale." Well, let us hope he was not born a jay. But the blessed thing is that if he was, he need not stay so. I have witnessed great transformations in voice just on account of a change in character. When one becomes loving, the voice becomes loving too. Courtesy is love shining out of the heart. Bring that love in by talking with Jesus every day, by reading His record of love in the Gospels, and you will come to share in the truthful word that was spoken of Him, "Never man spake like this Man." John 7:46. Practise making your voice quiet and pleasing.

Do we give our commands pleasantly? "Oh," says one, "it is often necessary to be stern." It is the less often necessary to be stern, the more carefully we consider our commands before we give them, and then follow them up to see that they are obeyed. In that case the child gets the habit of doing what he is told, and the more readily when he is told pleasantly. But grant that it is sometimes necessary to be stern. Is our sternness the weak caprice of a tyrant, or is it the determination of controlled love? It is not necessary to storm and rave, in order to be stern.

A Bad Habit

Some parents fall into the habit of snapping or growling their commands. Fall into the habit, did I say? Yes; but it goes deeper than that. It is not merely an idiosyncrasy of speech; it is a symptom of ill health, physical or mental, or both. Their voices bespeak an irritation or moroseness to get rid of which they need a betterment of diet, a refreshment of nerves, or, greatest of all, a more constant communion with God, in nature, in Bible study, and in prayer. God can recover us from our sickness of mind and body if we will pay attention to his laws. Surely no snappish spirit, that stabs and lashes, can come from the Christian mother or father.

Often the children, especially at the close of the day, are worn with effort or exhausted by excitement, and they tend to be fretful and impatient. Mother, too, is worn, but she has the wisdom of years. It is her privilege to keep a happy, cheerful spirit, to speak courteously and kindly, and to get the children into a happier frame of mind. Rest in sleep they need; but perhaps there are duties before bedtime, and the cheerful atmosphere of a mother's and a father's love can quiet the tired nerves for the evening hour. It is possible, and it is necessary for parents to cultivate the power of speaking cheerfully and hopefully in the midst of depression. This subordination of one's own feelings to the benefit of others is a chief element in courtesy.

Use Grace Words

Cultivate the use of "grace words." When you make a request of your child, say, "Please, Ellen, get mother a drink of water." When a service has been rendered, whether voluntarily or by request, do not fail to say, "Thank you, dear." Many parents assiduously seek to have their children display these evidences of courtesy habitually, and are particularly chagrined if they do not do it in the presence of strangers, who yet are guilty of neglecting them in their own intercourse with their children.

It is hard for the youngster, in the novelty, oftentimes the embarrassment, of meeting strangers, to call up his "company manners," when he is quite unaccustomed to them in the bosom of his family. Suppose you watch yourself for a while, and see whether you make your requests and your commands with or without the grace words. If you cannot easily watch yourself, observe whether your children use them. If they do, you do; if they don't, you don't.

Cultivate Courtesy

Courtesy, as between parents and children, is inevitably connected with the making and maintenance of family law. So long as the child is obedient to every wish and command of the parent, it is easy for the gentle parent, at least, to be fairly considerate of the child's rights and feelings. But let there be some obstinacy on the part of the child, and how frequently you see the mother or the father become threatening, even abusive.

Such an attitude would not be adopted toward

an adult, unless one had quite lost the sense of propriety; why is it adopted toward the child? "Because I am the child's parent. He must obey." Oh no; that is not the reason. It is not the way to secure worth-while obedience. The reason is that the child is physically weaker than the parent, and so, to put it plainly, can be bullied with impunity. He is whipped into surrender, but his rebellious heart determines that when he has the power he will reverse the decision. And so the same fault is perpetuated in him. The parent perhaps wins the battle, but he loses the war.

It may not be, to the average parent it certainly is not, always possible to avoid what we may call head-on collisions of wills. The wiser the parent, the less frequent will they be. But whether in agreement or in conflict with the child, let the parent always be courteous. "And ye fathers, provoke not your children to wrath; but nurture them in the chastening and admonition of the Lord." Ephesians 6:4, A.R.V. Treat your children as ladies and gentlemen, and they will become ladies and gentlemen.

Cheerful Greetings

Invariably say "Good morning!" as you meet each member of the family after arising. Say it cheerfully, say it brightly. A muttered or a growled "Good morning" is no "Good morning" at all. You may need some help to get into the spirit of saying "Good morning"—perhaps a cold shower, perhaps the "Daily Dozen," to wake you up. If you have a sour stomach, get rid of it. If you have a bad conscience, get your sins forgiven. Say "Good morning!" and teach your children to say it.

Say "Good night!" Don't slink off to bed with never a word to the family. The good-night kiss is a wonderful heartener. While your children are little, there is nothing sweeter than to have the little arms thrown around your neck, to be drawn tight in a hug, and to have the good-night kiss implanted on your cheek. Long will you remember that "Good night, mother!" "Good night, daddy!" I know some children older grown who still stoop their long lengths to kiss mother, and sometimes father, good night. Maybe we shall not expect it, that filial kiss, but never fail "Good night!"

Teach your children to greet acquaintances pleasantly, and to know how to receive them into the house, to put them at ease, to ask them to be seated, and to take their wraps. Teach them how to excuse themselves from company with whom they are engaged, and how to take their departure after a visit, and to speed the parting guest. The child six or seven years of age, despite his frequent shyness, can be taught the beginnings of his home courtesy. A good way to teach these forms of etiquette is to "play visiting" with your little girl or little boy.

If you jostle your little girl, if you tread on your little boy's foot, don't fail to say, "I beg your

pardon," or, "Pardon me, Bobby!" "I am sorry!" is even better. If you habitually say it, your child will learn to say it when he is at fault. But don't leave the matter to example alone; teach him to say it, and thus to express his regret. And both by example and precept teach the other to reply pleasantly, "Certainly!" or, "No matter at all!"

These amenities smooth the intercourse of men and women, and help greatly in the transaction of affairs and the maintenance of good will. Recently a great Frenchman, hearing the charge that his nation was "oily" in their social contacts, replied that it is oil that enables the machinery of the world to move. Of Asahel, the diplomat in Israel, it is said with divine approval, "Let him be acceptable to his brethren, and let him dip his foot in oil."

The deeper the hurt, the more deeply will true courtesy lead the transgressor to express himself. If a fault has been committed against one of your children, confess it to him, and ask his forgiveness. Do not think it will lessen your authority in the eyes of your child; he will respect you and love you the more for your repentance and candour. If you do this, you can be successful in teaching your children to ask forgiveness and to forgive one another's trespasses as their Father in heaven forgives theirs.

(Turn to page 28)



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My Daddy

MY daddy has the strongest arms
His play is the biggest fun,
'Cause he can hold me up so high,
And jump, and laugh, and run.

My daddy has the warmest arms,
'Cause when I'm sick or cold,
He carries me so cozy tight,
And tells me stories old.

My daddy's just the nicest man,
I think I'll never go
Away to school or anywhere,
I love my daddy so.

—Mildred Rhoads

A Household Helper

ROXIE didn't look a bit like a fairy; for her rosy cheeks were covered with freckles, and her red hair hung in curly tangles that distressed her very much; for not all her wishing could change its colour into the golden hue that she so particularly admired.

But one day grandma was sitting by the window with her work-basket standing beside her, when callers were announced, and she rose to go downstairs.

Somehow she struck her foot against the bottom of the work-basket, and it toppled over, sending its contents rolling all over the room. Grandma sighed as she looked at the confusion, and thought how long it would take to gather everything up and put her basket in order again.

She could not wait to do it then, however, and went downstairs. Roxie was in the next room and she heard the noise and confusion. She was just in the midst of a very interesting story; and instead of running to grandma's assistance, as she ought to have done, she went on with her reading so quietly that grandma never suspected that the little girl was so near her.

"Now, how nice it would be if some kind helper would come," thought Roxie. "Then when grandma came back, she would find everything in nice order. How surprised she would be!"

Just then it flashed into Roxie's mind that her little fingers could do that, and, laying aside her book, she went basily to work. She had just completed her task when she heard grandma coming upstairs.

She hid behind the door where she could see grandma's surprise without being seen herself.

Grandma looked as if she could hardly believe her eyes when she lifted the cover of the basket, and saw everything so neatly arranged.

"Some kind little helper must have been here!" she exclaimed, and Roxie burst from behind the door to throw her arms around the dear old lady's neck, and confess that she was the one who had brought order out of confusion.

After that whenever Roxie wished for someone to do a helpful deed, she tried whether her own little brown fingers could not accomplish the work quite as well, if not quite as swiftly; and when brother Jack found his mittens neatly mended, or papa found his slippers and dressing-gown awaiting him, or grandma found her missing spectacles hunted up, they all knew that the household helper had been at work with her nimble fingers.—Minnie E. Kinney.

Why Do Your Teeth Chatter?

YOUR teeth chatter because, when you are cold, the little muscles which close the jaw act in a series of quick contractions, which pull the jaw up and then let it fall by its own weight. This is repeated many times, and, as the action is quick, the chattering occurs. It is a peculiar thing that this occurs in spite of the will or brain, when, as a matter of fact, these muscles that operate the jaws are especially under the control of the brain. The chattering is really a spasm caused by the cold; and all spasms act independently of the will.—June Douglas.

A Journey to

HAPPY HEALTHLAND

By Belle Wood-Comstock, M.D.

THROUGH stories the author develops for the children a complete system of health habits that are in full harmony with the latest findings of medical science. These stories, though teaching technical principles, are very interesting, so much so in fact that the tendency will be for the child to want to hear or read for himself the entire book in one evening. There are, however, fifteen chapters, each of which could profitably form the basis for a bedtime story.

The colourful cover graphically depicts an imaginary voyage arranged to avoid sickness and land the boy or girl safe in "Health Harbour."

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MEATLESS RECIPES

The Health Value of Carrots

SOMEONE has said, cooked or raw, carrots are worth their weight in gold. The health-promoting and disease-preventing properties of this humble vegetable has been much discussed of late. It is best eaten in the raw state, grated preferably, though the favourite schoolboy method has its advantages, providing excellent exercise for the teeth and jaws and also performs valuable service in cleansing the teeth and hardening the gums. Carrots are rich in blood-purifying minerals and are particularly good for anæmic people.

The following are some simple and healthful ways of serving this excellent vegetable both raw and cooked:—

CARROT SALAD

1½ cups cooked or raw diced carrots,	1½ cups diced celery, 1½ cups chopped cu- cumbers,
1½ teaspoons salt, 2/3 cup salad dressing.	1 tablespoon chopped onion.

Mix the carrots, celery, cucumbers, and salt. Put in cold place for thirty minutes. Just before serving, add onion and salad dressing. Serve on tender lettuce leaves.

COTTAGE CHEESE AND CARROT SALAD

1 lb cottage cheese,	6 ozs. sweet cream,
2 ozs. cucumbers,	6 ozs. grated raw carrot
	3 teaspoons salt.

Mix the vegetables together, add salt to cheese, then add cream, stirring it in well. Combine the two mixtures and chill. Serve on lettuce leaves.

CARROT, CELERY AND GREEN PEA SALAD

1 cup shredded raw carrots,	1 cup diced celery, 1 cup cooked peas,
	¼ cup raw mayonnaise.

Mix all ingredients together, chill and serve on lettuce.

CARROTS AND ONIONS SCALLOPED

4 large carrots,	2 medium onions,
1½ cups rice,	1½ cups bread crumbs,
	Cream sauce, salt.

Scrape carrots, slice very thin and boil in salted water until almost done. Cook onions until almost tender. Arrange carrots in the bottom of a buttered baking dish, cover with a layer of onions. Make another layer of carrots and onions, cover with cream sauce, then the bread crumbs and rice. Bake until tender.

CARROT FRITTERS

2 large carrots,	1 gill of milk,
3 tablespoons browned, chopped onion,	2 eggs, Breadcrumbs, herbs.

Boil the carrots till tender. Rub through a sieve. Mix with it one gill of milk, the onion, breadcrumbs, herbs, and well-beaten egg. Stir the mixture in a double saucepan till set. Spread on a plate to cool, cut into suitable pieces; brush with egg and roll in breadcrumbs, and fry in hot vegetable oil. Serve with good brown sauce.

CREOLE CARROTS

2 cups diced carrots,	¼ cup chopped onions,
½ cup melted butter,	½ cup tomato juice,
	½ cup diced celery.

Dice the carrots and boil in salted water until tender. Simmer the chopped onions, peppers and celery in the butter for five minutes. Add the diced carrots and over all pour the tomato juice. Place in a baking-dish and bake slowly in a moderate oven forty-five minutes.

CARROT SOUFFLE

1½ cups carrot puree,	3 eggs,
½ cup cream,	Salt.

Peel and slice carrots, cook in salted water until tender, drain off all the water and then put the carrots through a colander. Add the cream and well-beaten egg yolks. Fold in the stiffly beaten egg whites and bake until set in buttered ramekins placed in a pan of hot water.

CARROT LOAF

2 cups ground carrots,	2 cups bread crumbs,
2/3 cup chopped nuts,	3 eggs,
2 cups steamed tomatoes,	1 teaspoon salt,
½ teaspoon Marmite,	2 teaspoons minced onions.

Mix ingredients together, place in a buttered baking pan and bake slowly for one hour. Serve with white cream sauce.

BREADED CARROTS

Scrub young carrots, and boil in the skins until done. Dip in cold water, one at a time, and remove the skin. Split lengthwise, sprinkle with salt, dip in cream, roll in fine baked crumbs or fresh bread crumbs, and lay in an oiled baking-pan. Brush over the top with an oiled brush, and bake for 20 minutes, with a pan over the top; then remove the cover, and brown lightly.—F.



The

DOCTOR SAYS



Ques.—"Whenever I have headache the pain is confined to the right side of the head only, only the lower portion of the head is affected and not the top. I feel relieved when I have a motion. I should like to know why the pain is always felt in a particular place only, and not in the whole head if it is due to bad digestion. I may add that I underwent an operation for mastoid abscess in 1917 when I was reading in the college.

"I am not constipated nor do I suffer from pain in the stomach or have any uneasy feeling after taking food. I take plenty of exercise, and am quite stout, but I don't relish food, and have not a good appetite. I feel really hungry and relish food when I go to a new place, but after two or three days' stay food again loses its charm for me. As I eat less I make up the loss by taking milk every night, and eating one or two eggs in the day time. I have chronic bronchitis, and take colds easily. I cough and have expectorations at about 3 or 4 a.m. when I eat anything disagreeable in the night.

"I urinate too much in the night, I have to get up for it three or four times. When I go to a hill station I urinate there too often in the day—almost every hour. Is it a symptom of anything bad? It does not weaken me in any way."

Ans.—The condition as detailed in the outline of your case presents definite evidence of chronic acidosis and suggests that the fault is most likely to be found in the unbalanced diet. All food materials are separated into two classes according as they yielded after their digestion an acid forming ash residue or an alkaline forming residue.

The normal balance should be one part of acid ash forming food to four parts of alkaline ash forming foods. The average diet in India is excessively acid forming because of its high carbohydrate and fat contents and its low provision of alkaline forming foods such as plenty of green leafy vegetables and fruit.

I believe that a correction in your dietary practices would markedly improve the head pain, chronic bronchitis, tendency to take cold and the frequent urination.

Ques.—"Will you be kind enough to let me know what blood pressure is due to; what are its effects and how can it be reduced, especially in old people beyond sixty years?"

Ans.—There is a normal pressure at which the blood circulates through its vessels just as there is a constant normal body temperature. This normal blood pressure is the result of co-ordinate functioning on the part of many organs and structures. These co-ordinate operations resulting in the maintaining of a constant normal pressure are presided over by certain glandular structures such as the thyroid gland, the pituitary gland, and the adrenal glands.

The departure from normal blood pressure may be either below the normal or above normal just as one may have a low or a high temperature. This departure of pressure results in disturbance of function on the part of those organs depending upon a finely balanced pressure for maintaining their normal operation.

The most active cause for disturbed blood pressure is the presence in the circulating blood of certain irritating and even poisonous substances derived from the food canal or absorbed from focal infections like the abscess at the root of a tooth, or from the lungs in the form of tobacco vapours.

These circulating poisons are carried to the liver where they are under normal circumstances rendered comparatively harmless. If this organ becomes over-taxed by an excess of

toxins or long continued exposure to such excess, this organ becomes inefficient and the toxins which should have been destroyed are allowed to re-enter the circulation producing their pressure disturbing influences.

Of primary importance is the matter of locating the source of these irritating toxins and correcting this source. This may mean decided changes in dietary practice, the maintaining of three bowel movements daily, the removal of all focal infections of teeth, tonsils or elsewhere, discontinuing the smoking habit, eliminating alcohol. If these do not correct the disturbance it will be necessary to search for the cause by aid of laboratory tests and X-Ray examinations.

For the treatment of functional blood pressure disturbance an extract prepared from the liver by a special process has been found very helpful.

Ques.—"My son had a terrific fall and since found difficulty in bending, as a pain along the left buttock made it irksome."

Ans.—It would appear that as a result of the fall your son injured the sciatic nerve resulting in certain nutritional changes and impaired circulation, of the affected leg.

The condition complained of at present would appear to be due to a fallen arch in the affected foot. The immediate relief for this condition is the use of properly fitting arch supports. This should be selected and prescribed by his physician. The use of this arch support will relieve the pain complained of in the foot and heel.

It is possible that as a result of the fall there remains a low type of inflammation with swelling in some part of the sciatic nerve. This swelling would result in impairment of functioning and pain which might be located at almost any point of the leg.

Such a condition in the affected nerve suggests the use of either diathermy current or the galvanic current as may be indicated for the correction of the trouble still left in the nerve.

Ques.—"When I have a cold, there is one spot of my lungs that hurts quite badly; and when I have a spell of coughing, this particular spot hurts. Is this a sign of tuberculosis? I have leaky heart, and am underweight. Is there anything I can do to gain?"

Ans.—This is a sign that you should go to a doctor and have your lungs examined.

Your underweight may be due to lung involvement or to insufficient eating. Without knowing why you are underweight, I can not give much advice.

Ques.—"What are hormones, please?"

Ans.—It was supposed until recently that the body governed its various activities by means of the nervous system. Now it is known that many of the body's activities are governed by chemical substances that are prepared within the body for that purpose.

Such chemical substances are prepared by the thyroid gland, by the parathyroid glands, by the capsules over the kidneys, by the pituitary body at the base of the brain, by certain "islands" in the pancreas, to mention only a few of them.

When there is a disturbance that causes an excess or a deficiency in the secretion of any of these chemical regulators, the body suffers as a result. For instance, the lack of thyroid secretion causes one set of symptoms, the excess of thyroid secretion causes symptoms quite the opposite. These chemical regulators of the body are called hormones.

CREAM & COTTAGE CHEESES

How to Make Them

IN hot summer weather, gallons of milk "on the turn" are poured down kitchen sinks, from the humble pint in the small house to actual gallons in big establishments. And this, very often, by persons who say how fond they are of "cream cheese," but that it is too expensive to buy regularly.

It is really a crime to throw this milk down the sink, because it contains the lactic-acid germ, the friendly germ, the germ that does battle in the colon with the deadly germ of decomposition (introduced chiefly by flesh foods) which is a predisposing cause of cancer.

Real Cream Cheese

Real cream cheese is nothing but thick cream hung up in a cloth until it has attained the sufficient degree of ripeness.

The "cream cheese" of ordinary commerce is usually quite guiltless of any added cream and may even be made of skimmed milk. But all that milk poured down the sinks can be turned into delicious home-made "cream cheese."

Cottage Cheese—Three Stages

Begin the experiment with a quart of milk just on the turn, put it in a double saucepan and let the water come very gradually from cold to hot. Then turn the gas out and leave it. Any one who has a warm hob, or Century stove, and can stand the milk in a crock on this, has ideal conditions.

The point is to warm the milk slowly until it curdles, not to make it hot quickly or cook it. The time that this will take naturally varies according to the weather and the degree to which the milk has turned. It may be any time from one hour to several. If for any reason you desire to hurry it, you can add the juice of half a lemon to the quart.

When ready, the curd should look like a solid mass in the middle and the whey should be collected round this in a perfectly clear liquid.

Now take a colander and stand it in a basin and over this lay a square of cheese-cloth, preferably, or else muslin. Pour the curds and whey into this and leave to drain a few minutes. Then hang up in a cool, airy place with a basin underneath to catch the drippings. Leave for at least twelve hours. Then take down and squeeze well.

Here comes the advantage of having real cheese-cloth, because it has open meshes like muslin, and yet is so strong that the cheese can be squeezed in without its tearing.

In default of cheese-cloth, put a piece of clean calico or other strong boiled rag under the muslin for squeezing. You may say, Why bother to have the muslin then? Because the air must get to the cheese.

If the cheese is now tasted, it will be found, probably, to taste quite sour. That is the flavour, with some salt added, that many people prefer.

If so, turn into a basin, beat with a fork well, add salt to taste, arrange in a pyramid in a glass dish—and you have better "cream cheese" than you are likely to buy at any dairy.

II

But hang up for another twelve hours and, when you take it down and taste, it will be "tasteless" or, rather, as the little girl who always said she "couldn't bear cottage cheese," remarked, "lovely, just like cream." This beaten with a fork and arranged in a glass dish is delicious, eaten in all kinds of ways. Best of all with salad or, like clotted cream, with fruit, or at breakfast on marmalade.

III

Leave it another twelve hours and the actual cheese flavour begins to appear, and this must be regulated by taste.

I say three divisions of twelve hours, approximately of course. Because the actual time must depend on the condition of the milk, the state of the weather, and the cool, airy, or no, accommodation for hanging.

Slices and Sandwiches

Instead of beating with a fork to make the cheese soft and creamy before serving, it can be squeezed tightly up in its cloth with a plate over it and a weight put on that. Or it can be put into a mould for a short time. Then it can be cut into slices. Some people prefer it this way. It is delicious made into sandwiches, between thin slices of wholemeal bread and butter that have been sprinkled with chopped mustard and cress or skinned tomatoes.

Cottage Cheese Cream

To make approximately real cream cheese of this actual cottage cheese, after beating it well with a fork, add from one or two tablespoons of thick fresh cream.

This cheese must be eaten within one or at most two days of the making according to your weather and storage conditions—From "Cottage and Cream Cheeses," by Florence Daniel (London: The C. W. Daniel Company.)

China's Flood

(Continued from page 7)

True it is that, "because sentence against an evil work is not executed speedily, therefore the heart of the sons of men is fully set in them to do evil." Eccl. 8:11. Yet also is it true that, longsuffering though the God of all the earth may be, judgment has been decreed against the wicked among mankind. All over this globe, not only in China but in our so-called Christian nations as well, men have been turning their backs upon their Creator. With a loud voice is going forth God's call to the inhabitants of earth. "Fear God, and give glory to Him; for the hour of His judgment is come: and worship Him that made heaven, and earth, and the sea, and the fountains of waters." Rev. 14:7. With infinite tenderness does God invite His people: "Come now, and let us reason together, saith the Lord: though your sins be as scarlet, they shall be as white as snow; though they be red like crimson, they shall be as wool." Isa. 1:18. And with the deepest of love and the greatest forbearance does He issue the solemn cry: "Therefore I will judge you, O house of Israel, every one according to his ways, saith the Lord God. Repent, and turn yourselves from all your transgressions; so iniquity shall not be your ruin. Cast away from you all your transgressions, whereby ye have transgressed; and make you a

new heart and a new spirit: for why will ye die, O house of Israel?" Ezek. 1:30, 31.

Yet still does man spurn God's love and reject His mercy. Still does he cling to the iniquity of his way, and bring upon his own head the judgment that High Heaven has decreed. "I begin by inflicting evil on the city that belongs to Me, and are you to get off unpunished? You shall not go unpunished, for I am summoning a sword to fall on all the inhabitants of the world, says the Lord of hosts. So prophesy all this against them; tell them: The Eternal will roar from on high, from His sacred abode He will utter a cry, thundering at His own homestead, shouting at all dwellers upon earth, as men shout loudly at the vintage. The din resounds to the world's end; for the Eternal arraigns the nations, He indicts all mankind, and puts the wicked to the sword. The Lord of hosts declares: from race to race calamity extends, a mighty storm is stirring from the earth's far ends." Jer. 25:29-32, Moffatt's translation.

Well may we remember as we witness disaster following upon disaster, and woe upon woe, that the world today is being called up for judgment by the God of all the earth, that it is the Eternal who is now arraigning the nations, and God himself who indicts all mankind.

And well may we remember in the midst of all this woe and destruction that God still knows His own. "God is our refuge and strength, a very present help in trouble. Therefore will not we fear, though the earth be removed, and though the mountains be carried into the midst of the sea; though the waters thereof roar and be troubled, though the mountains shake with the swelling thereof. . . . Be still, and know that I am God: I will be exalted among the heathen, I will be exalted in the earth. The Lord of hosts is with us; the God of Jacob is our refuge." Ps. 46:1-3, 10, 11.

God himself assures His people: "The work of righteousness shall be peace; and the effect of righteousness quietness and assurance for ever. And My people shall dwell in a peaceable habitation, and in sure dwellings, and in quiet resting places." Isa. 32:17, 18. So today in the midst of all this welter of blood and desolation, when the largest of cities and whole countrysides are being swept bodily from the face of the earth, let us so live that we may rest in quietness and confidence, and with heartfelt assurance be able to say: "This is our God; we have waited for Him, and He will save us: this is the Lord; we have waited for Him, we will be glad and rejoice in His salvation." Isa. 25:9.

It is well to remember that the food we consume bears a distinct relationship to our usefulness, and in consequence to our happiness. It is important, therefore, for us to become as familiar as we can with the important problems relating to our diet.—*Selected.*

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Septic Throat

(Continued from page 13)

ripe, juicy fruits. A gargle of baking-soda and borax (level teaspoonful of each to half a pint of camphor water) should be used every two or three hours. A daily painting of the throat with a paint of glycerine of tannic acid and the mild tincture of iodine (equal parts) is also advisable. It should be remembered that the disease is contagious; the patient consequently should be isolated.

In cases of chronic septic throat, if not cured by ordinary treatment such as suggested, the tonsils should be dissected out. This is the work of a throat specialist.

The Great White Plague

(Continued from page 15)

unnecessary movement the subject is needlessly drawing upon his reserves of vitality. Hence he will waste away the more quickly unless he refrains from unnecessary movement. Therefore rest in bed, proper feeding, and sanitary surroundings are the most important factors in the cure. As for exercise, the patient may begin this as soon as the fever has abated.

About Fevers: Under the influence of a high temperature the vital combustion is incomplete, and this is especially so with the oxidation of fats and nitrogenous substances and proteins. The natural consequence is acidosis. Starvation only increases acidosis. Carbohydrates afford the most effective means for combating acidosis in these cases.

In fevers there is an increased production of heat. Therefore, if fuel (good food) is not supplied liberally from outside sources, the body substance itself will be consumed. This is one of the chief causes of the great wasting and emaciation observed in prolonged fevers.

The loss of iron in this condition is great, and there is also a special need of an abundant supply of vitamins to aid in repairing the damage done to the tissues. When milk is used, the iron may be supplied by fresh young spinach, cooked in no additional water save that remaining on the leaves after washing, and the cooking continued only eight to ten minutes, and served with hard-boiled egg yolks; also beet or turnip tops, mustard greens, or dandelion greens may be used.

Diet in General: The diet must be rich in blood-building elements, such as rich vegetable broths, bran broth flavoured with Savita or Vegex, carrot juice served warm and creamy, green-top vegetables, hard-boiled egg yolks, raw bran moistened with cream or fruit or with both, raw vegetable salads, cooked fresh vegetables, prunes, raisins, tomatoes, red apples, strawberries.

The diet in tuberculosis must also be *highly nutritious*,—rich in flesh-forming materials, such

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as cream, milk, butter, butter-milk, eggs, whole-meal breads, noodles, macaroni, mealy potatoes, dates, fig, raisins, honey, and so forth. The protein element must be higher than normal, and the meals must be made as attractive as possible because the appetite is often very poor. If enough food is not eaten at the regular meals, serve a glass of milk or of buttr-milk, or a glass of fruit juice, midway between meals until the appetite improves. The including in the diet, daily, of foods that are rich in organic iron lays the foundation for a genuine increase in the appetite, after which recovery should be hastened by an intensive feeding programme, including foods rich in body-building elements.

Eye Lotion

AVOID borax in treating the eyes. Borax is often useful as a skin lotion, but should not be used for the eyes. Boracic acid is highly useful, as has been long known; but in borax the acid is combined with an irritating alkali, and so borax should never be used in applications to so delicate a surface as the mucous membrane of the eye. A saturated solution of boracic acid dropped into the eye several times a day is highly useful for inflamed eyelids, and may be used with perfect safety.—*Selected.*

Home-Making as a Profession

By Edna L. Walker, B.A.
Instructor in Home Economics

SEE here," said a coming young millionaire, "if you will take my wife and give her a good training in economics and home-making, I'll give you a medal." And he meant it. And so do many men think it and mean it while a few dare to say it.

As thinking people face the world today, they are appalled at its perplexities of crime, vice, pleasure, luxury, and ease. In an endeavour to diagnose the situation they almost invariably blame the home as the first cause, for when the home slips, the world slips and slips badly. If you want to build a strong nation, a healthy nation, you must first sow the seed of health, moral and spiritual, and the home soil is the best because it is the first and the most natural. A nation reaps what its homes sow.

But who make the home? Well, almost anybody and everybody has a try at it these days, but only a few succeed. Tons of mortar and brick and stone are piled up into houses, but only a few homes are built, for "It takes a heap of living in a house to make it home."

Men and women build our homes, or rather they experiment. If we plan for John to be a doctor we must of course see him through a good

medical school, and if Jane is to be a teacher we train her for such, but what are our plans for the home-makers! No education can be said to be complete which neglects to train young men and young women for the greatest of all professions, that of home-making. School should teach the preservation of the home.

Home-makers need a good education. When a friend was about to complete her college course, her uncle wrote, "Now, Alice, don't throw away your education by getting married." All such relatives aren't dead yet, and so in some countries we just don't bother to educate the girls above the elementary grades because we expect her to marry. We send John on to school as he must have a trade or profession so as to support a family, but Mary—well, she's different. Fathers and mothers, is it fair? Girls, when you know that in all probability you will be called upon to make a home can you be content with so small an equipment for so great and noble a profession? Even if you must leave school early, keep up your education by contact with the best people, by reading the best books—there are lots of them—or by lectures and night-school work. This mental training will help to make a girl a more companionable wife, and a better mother.

Dear home-makers, so much depends upon you. The family must be fed, clothed, and educated. It must be kept robust. It must be happy, unselfish, cheerful, and useful. Who will make it so?

Wishing will not do it; complaining makes matters worse. "A vision without a task is a dream; a task without a vision is drudgery, but linking the two is service." All our home-makers have the task, and it isn't always too easy, but when the real vision of the possibilities of home-making floods the soul then we see woman at her best—a friend, wife, and mother.

Courtesy and Kindness

(Continued from page 21)

Praise Versus Blame

It is good to tell your child, "That's well done, Harry!" to say, "Oh! Isn't that pretty! Did you do it all by yourself, girlie?" to exclaim, "You're getting to be mother's helper, Edna. I appreciate that;" to declare, "You pleased mother greatly by what you did, son."

It is so easy to blame; but how we do forget to praise! Of course, praise must not be overdone; we must not make prigs of our children. But sincere gratitude and pride for their right action should find expression as well as should our chagrin and rebuke for wrong action. Look for opportunities to give a due amount of praise, to compliment your children for good words and deeds, for neatness, cleanliness, honour, purity, courage, charitableness. "If there be any virtue, and if there be any praise, think on these things." Phil. 4:8.

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To Prevent Influenza

THERE are, of course, certain sensible precautions we can take to avoid having influenza. Certainly, if influenza is rife, it will be wise to avoid dark, stuffy, badly ventilated places of entertainment. Quite apart from germs these places lower one's vitality.

Keep Fit

These two words are the magic talisman not only against influenza, but against all germ diseases. Avoid over-fatigue, chill, alcohol, and tobacco.

Sleep in a well-ventilated bedroom. Get at least eight hours' sound sleep. Wear reasonably warm but loose clothing.

Now is the time to be a little extra strict with yourself, and to permit of no slacking in your physical-culture habits. Take more outdoor exercise, enjoy more health-giving tramps or outdoor games or sports. If these are not available then do your full daily quota of indoor scientific exercises and breathing exercises. Don't neglect that great breathing and eliminative organ the skin, but keep it in good condition by bathing, and especially by plenty of vigorous friction and rubbing of the skin. Either one's own hands or friction gloves or flesh brush can be used for this purpose.

Avoid constipation, that common source of self-poisoning. Keep the large bowel clear and clean by laxative diet, and, if necessary, by an occasional high enema.

The diet especially should be carefully regulated.

Influenza germs are only to be feared when there is stored up in the blood and tissues of the body pathologic beds of mucus or catarrh, acids, alkaloids, leucomains, and ptomaines, which are all the result of faulty feeding and poor elimination.

If you keep your body clean within as well as without, then if the influenza germ does get inside you it will be killed by the life forces and natural protectors in the blood.

Therefore keep your body reasonably well nourished, neither overeating nor undereating. Prevent stagnation, congestion, and the storing up of waste by regular daily physical exercises.—*Selected.*

How the Body Works

(Continued from page 8)

It is most important to see that all bad sitting, standing, and walking postures are corrected in early youth. This is especially necessary in regard to the spine.

Muscular System

The muscles of the body are of two types: *Voluntary muscles* are more or less under the control of the will. They consist of bundles of muscular fibres enclosed in a fibrous membrane or

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sheath. Such muscles vary greatly in size and shape and each is supplied with nerves which cause it to act. Examples of voluntary muscles are those of the limbs, jaws, and face.

Involuntary muscles are not under the control of the will. They are found in the heart, throat, stomach, intestines, and walls of blood-vessels, and are composed of slender, spindle-shaped cells. The heart muscle is peculiar and distinct. In it the cells are short, oblong, and stubby, sometimes with lateral branches.

All muscular tissue has a special function, *contraction*. By the action of the nerves, a muscle is made to shorten and harden, thus performing work. This gives rise to waste products, such as lactic acid, in the muscle, which cause it to tire. The muscular wave which travels down the throat stomach, and intestines, moving on the contents, is known as *peristalsis*.

Involuntary muscles contract more slowly than those of the voluntary type and are less easily fatigued. It is very difficult to fatigue the heart muscle and a similar variety found in the wings of insects.

The hygiene of the muscular system may be summed up in three rules. These are: a balanced diet to produce healthy flesh; proper exercise to develop the muscle fibres; and healthy nerves to cause correct contraction. Deep breathing exercises develop the muscles of the chest and lungs.

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Just Supposin'

(Continued from page 6)

make-believe remedies? Many diseases are curable if taken in time and given the right treatment. To lose time fooling with fake cures and quack remedies may make it too late to effect a cure. Patent medicines are made to sell, not to cure.

Suppose nature's methods of healing follow certain rational lines, can it be that any sort of procedure or any kind of makeshift measure will do? Is there after all not a real science to healing, and does it not take intelligence to treat a sick body with all its marvellous workings? Can we afford to risk the delicate human mechanism to the hands of a bungler? We would not do that with a watch or an automobile. Even a sick dog, cat, or cow gets some semblance of skilled treatment.

Suppose we stop supposing about this matter of health and accept the facts that medical science has worked out, and benefit thereby. There is evidence all about us of the possibility of disease.

We cannot help knowing that something brings it. If, as the doctor says, most diseases are preventable, it surely would be well to know how to avoid them. They tell us simple things to do and give us good reasons for doing them. And they say that if we do those things we may be well.

Suppose we do them.

The Fallacy of an "Eight Day Week"

(Continued from page 19)

come down to us unbroken from time immemorial. The same astronomers declare that the insertion of a blank day would break that weekly cycle. The breaking of it would displace the holy Sabbath-day, which is the terminus of the cycle. Because of this, we who keep God's holy Sabbath-day, protest.

A Harmful Habit

A VERY common harmful habit is that of putting the fingers in the mouth. The fingers more than any other part of the body are all the time coming in contact with things more or less unclean. Things handled by many people, as books, door-knobs, the stair railing, the cricket-bat or ball, may each or all have on them harmful bacteria.

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