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P. K. Patel

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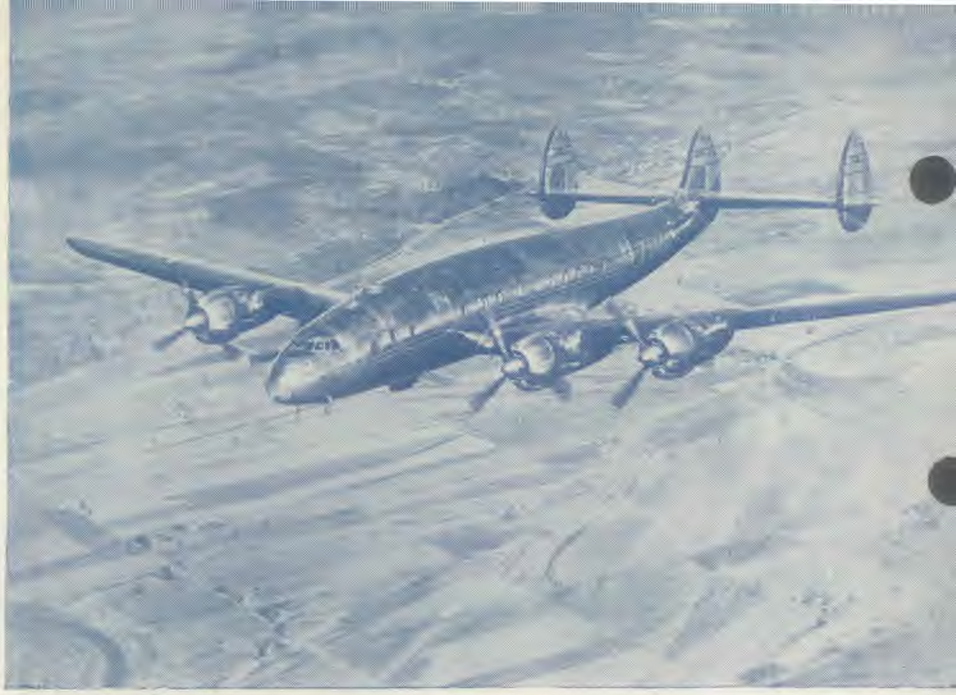
EDITORIAL

THIS STRIKING AGE



DEVELOPMENT OF COMMERCIAL AIR FREIGHT IN THE UNITED STATES

A TWA Constellation, a four-engine plane capable of accommodating a maximum of sixty passengers or carrying a 16-ton cargo load. A feature of the plane is that all cabin space is pressurized, permitting operation up to a height of 30,000 feet. It is capable of a maximum speed of better than 300 miles an hour.—U.S.I.S.

THE material needs of the world today are great. For nearly six years manufacturing establishments everywhere devoted either their partial or full attention to the making of materials necessary to carry on the war and to bring it to a successful conclusion. Citizens of every nation were asked to do without things to which they had been accustomed, with the promise that as soon as victory came there would again be an abundance of everything. Finally victory came, but the promised abundance of goods has not yet materialized. The world is still suffering from shortages of every description. There is the housing shortage, cloth shortage, motor car shortage, grain shortage, and machinery shortage. The only way to supply these shortages in peace time is for men and women to work for the re-establishment of peace and prosperity with the same energy and determination they worked during the war years to bring about victory over their enemies.

We find, however, a paralysis in industry caused by strikes. In summing up the general strike situation the *United States News* recently made this comment: "Strike action is shaking political stability throughout the world. In the oil fields of Iran, strikes are bubbling out of British-Russian rivalry. Indonesians are using the strike weapon in their fight to win freedom from the Dutch. Bolivian workers quit their jobs to overthrow dictatorship. Armed strikers in Italy threaten the new republic, and France is striking to meet labour demands that may wreck the nation's economic recovery.

The strike weapon is being used in various struggles, political, economic, and social. It is not easy to classify the issue, but it is not difficult to see the baleful effects upon the nations in their struggle for post-war recovery. The United States probably leads the world at present in respect to frequency and variety of strikes. It seems that no industry or institution is free from them. There a strike may shut down a single factory or injure the whole nation. Recently the whole municipal organization of the city of Oakland, California, went on strike. Usually strikes are called on the pretext of obtaining fair wages for workers. The effort is to keep wages on a par with the cost of living which seems only reasonable. But how does it work? Prices are high because merchandise is scarce. Strikes decrease the output of goods, which naturally increases the price of goods. The whole thing revolves in a vicious circle, with man the victim of his own devisings.

Here in India strikes have not been so frequent, but they have severely crippled our recovery. Several months after the end of the Post and Telegraph strike, we find that vital system still in a chaotic condition. Who can estimate the loss to the country at large brought about by this paralysing strike?

1,500-SQUARE-MILE NEW YORK PORT STILL GROWING

A panoramic aerial view of the New York harbour. In the foreground are the sky-scraper office buildings.—U.S.I.S.

The nations of earth can recover from the aftermath of the war only under most favourable conditions. Nations are burdened down with debts calculated in astronomical figures. The Bank of Internal Settlement, located at Basel, Switzerland, has estimated the cost of World War II as being $1,352,000,000,000. That would be approximately Rs. 4,394,000,000,000. Such figures carry little meaning to the average mind. It is impossible to comprehend such huge sums. This is four times the cost of World War I. Surely the present spirit of rivalry demonstrated between capital and labour is not conducive to recovery from such an orgy of destructive spending.

The question of cause naturally arises in the minds of thinking people. The effect is obvious to all. Why do men resort to coersive measures to settle their differences, when each such effort retards rather than advances progress? Why cannot men sit down in conferences and settle their disputes in the spirit of willing compromise? The basic reason is, we believe, that man is selfish. Rich men are selfish; poor men are selfish; statesmen, reflecting the spirit of the states they represent, are selfish. Man is seeking some new untried method by which to lift himself out of his present predicament. It is not some new method man needs. He needs a new heart. The fault in the past has been not so much with the machinery man has employed as with the spirit controlling the machinery. Man has ever been blind to his great need. God has ever understood man's condition and his need. "I create the fruit of the lips; Peace, peace to him that is far off, and to him that is near, saith the Lord; and I will heal him. But the wicked are like the troubled sea, when it cannot rest, whose waters cast up mire and dirt. There is no peace, saith my God, to the wicked." Isaiah 57:19-21. What man needs is a power outside of himself to enable him to accomplish that which is good and unselfish. God stands ready to supply that power. Will man accept the power offered, or will he continue on in his blind selfishness as he has done in the past? Upon that answer depends our future.

MEAL-TIME MADNESS

Reprinted from *The Chicago Daily News*

HOWARD VINCENT O'BRIEN

IN A laboratory, the other day, I visited the interior of a sleek and thoroughly contented cat. She had been fed a bounteous repast of liver and other feline delicacies; and as she lay stretched in a purring doze, science peered into her viscera with a fluoroscope.

Digestion appeared to be proceeding without a hitch. Tabby was as tranquil as a summer sea. Then, suddenly, a hidden gramophone played a recording of a dog's bark. The dozing cat sprang to life. Her back arched, her hair stood on end, her eyes were wide, her claws were out.

These exterior reactions were nothing to what went on in the cat's interior. Her adrenals gushed fluid and her stomach was awash with gastric juices. Peristalsis went into reverse; and for all the pleasure that liver now gave her, it might just as well have been so much brick.

Observing all this, I reflected ruefully on the mistake I made—a mistake I'm afraid most parents continue to make.

Nobody can doubt, now, that a serene atmosphere at the dinner table is essential to digestion. Eating has to be done in peace, or it does more harm than good. But in our curious way of life, meal-time is about the only period when a father sees his children. It is his one opportunity for preaching and remonstrance.

So, instead of approaching his victuals with normal enthusiasm, Junior is reasonably certain that somewhere between soup and dessert he will hear reproachful comment on his report card.

If you could put a fluoroscope on him, you would find his intestines tied in a double bowline and his stomach flooded with muriatic acid.

His sister, with an appetite of adolescent vigour, nibbles listlessly at her food, waiting in apprehension for daddy to deliver a few remarks on the way girls behave now-a-days.

Even mother, who has been toughened by years of submission to meal-time discussion of her frailties, secretes a dangerous excess of adrenaline, preparatory to defending herself against strictures on her management of the family budget.

The insides of these people are behaving exactly as the cat's did when she heard the bark of the dog. And father is no exception. The poor man also suffers from his ill-timed lawgiving. His dinner doesn't "set well," and sometimes he has a pain which makes him think maybe he has an ulcer or worse.

There isn't much any of us can do about settling the larger problems of this world. But if everybody made a practice of keeping unpleasant subjects away from the dining table, I believe the world would have fewer problems to settle.—*Reader's Digest.*

WHAT THEY SAY!

"I am a subscriber to HEALTH. I find the information contained therein very valuable."—A. S. M., Madras.

* * *

"We take immense delight to go through the articles of HEALTH. They are not only medical, but also spiritual. Myself and family members are greatly benefited by the same."—Dr. T. D. R., L. M. & S., Tadepalligudem.

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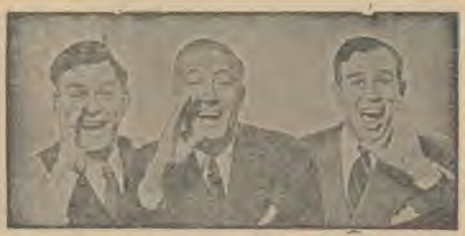


COMING NEXT MONTH

DANGERS THAT MENACE YOUR BODY

* *

TREATMENT OF TYPHOID FEVER

* *

LEUKEMIA

* *

BOIL BUSTERS

* *

WHY CATCH A COLD?

* *

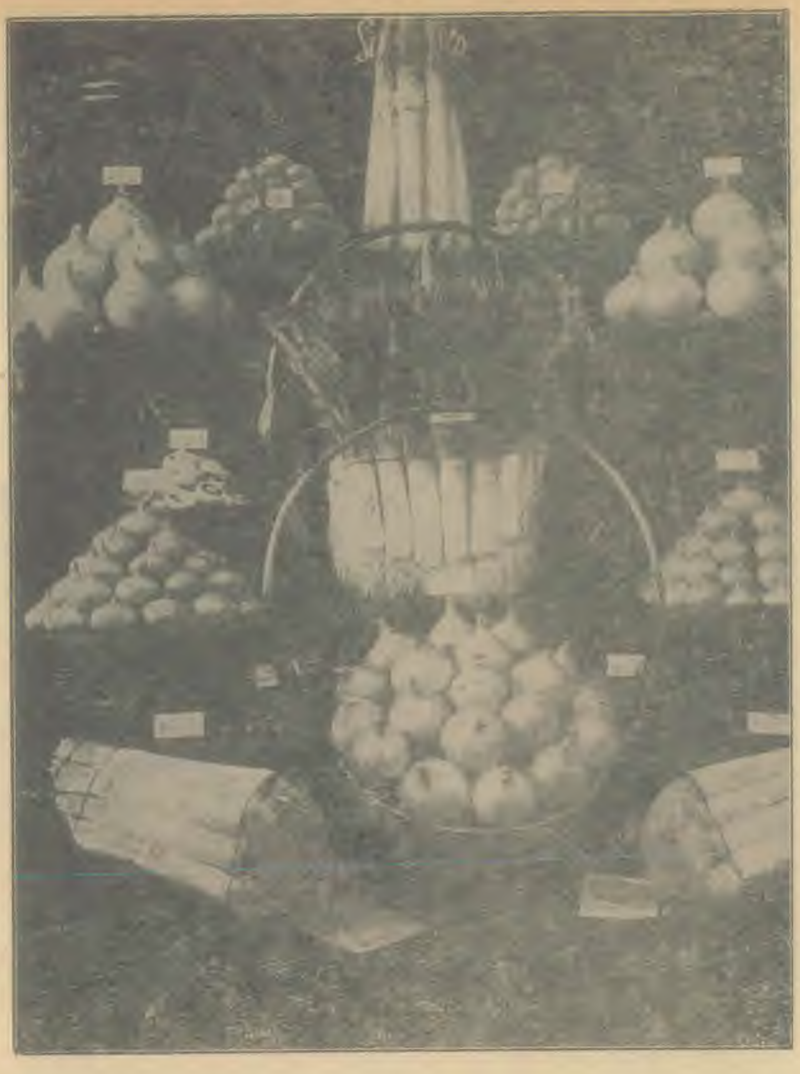
ANIMALS THAT TRANSMIT DISEASE

* *

MARCH OF MEDICINE

* *

DOCTOR SAYS



HAVE YOU REALLY TASTED VEGETABLES?

DELIA REISWIG, *Dietitian*

BALANCING the diet requires thought. The parts or elements necessary for complete nutrition must be properly proportioned, so that health in its fulness may be realized. The food classifications equally essential for health are proteins, carbohydrates, fats, vitamins, minerals, and water. These essentials may all be derived from vegetables.

We are acquainted with protein as the essential material for growth, repair and maintenance of body tissues, and it may help furnish energy. The foods most often called to mind when protein is spoken of are meat, milk, eggs, and cheese. Vegetable proteins such as soybeans, peanuts, other legumes and nuts, are excellent and at the same time less costly sources of protein.

Amino acids are the building stones from which all proteins are composed. Each protein food is made up of a different combination of the twenty-odd known amino acids. For years we talked about complete and incomplete proteins. We said that complete proteins contained a considerable number of amino acids essential to human nutrition and that incomplete proteins contained a lesser number. Today scientists are discarding the descriptive words *complete* and *incomplete*. Instead, they advise us to learn more about essential amino acids and to choose a variety of foods which will furnish all of the eight or ten amino acids necessary for growth and health.

In an effort to find methods of supplying the missing amino acids in certain foods, the procedure of supplementing the diet with some other inexpensive food high in the lacking amino acids brings excellent results. The addition of wheat germ or corn germ produces good results, but the addition of a small amount of sunflower seed produces an exceptionally fine increase in protein sufficiency.

This would indicate that as the amino acid deficiency of certain foods is revealed, it should be possible to supplement this with other foods supplied with the missing amino acids. The immediate problem, however, is to determine the amino acid deficiencies in the various foods and to learn what other foods can best compensate for these deficiencies by their addition.

Recent studies conducted on normal healthy people by Samuel Levinson, University of Illinois, College of Medicine, as reported by the *Journal of the American Dietetic Association*, "proves that a vegetable protein diet composed of pea soup, stew mix, soya cereal, and flour is adequate in every respect."

This study was conducted on four men for four weeks and three women for six weeks. During the time this diet was fed, these normal, healthy people continued their usual occupations. One man was a clerk, one was a gardner, another a laboratory technician, and the fourth a painter. One of the women was a laboratory technician, the second a dietitian, and the third a cook.

At the same time another group of people who served as controls were allowed to follow their normal dietary habits. Blood tests showed that the antibody level (or typhoid-resisting bodies after typhoid vaccine was injected) of the blood of those on the vegetable protein diet was as good as those on the regular diet and in many respects higher.

The report states:

"We conclude that within the limits of the experiment: (1) The vegetable protein diet is adequate in maintaining the serum protein albumin and globulin, as well as the hæmoglobin of the blood. (2) The antibody level of the blood was adequate and there was sufficient protein in the vegetable diet to maintain this level. (3) There was no evidence of anæmia in the human subjects during the course of the experiment. (4) The weight loss was normal, and there was absolutely no interference with the subjects' work or daily routine and well-being. (5) There was no manifestation of sub-clinical or chemical indicative of a dietary deficiency.

"This vegetable protein diet containing soya flour can be recommended as a relief diet in feeding the people of

the war-torn countries as well as in the rehabilitation areas."

This diet can be produced at the normal cost of but seven annas per person per day. Amino acid studies have demonstrated that an "artificial protein" modelled after casein of milk can be made from synthetic amino acids, including all the essential ones. This mixture, added to a basic ration, enabled starved rats to recover lost weight practically as rapidly as when fed complete protein in food.

In further experimentation, starved rats fed fortified corn meal gained only three grams of weight in seven days, but the same rats fed corn meal to which nine artificial essential amino acids had been added gained thirty-nine grams in the next seven days. In other words, the protein value of corn meal had become equal to that of high-quality normal complete protein, but the extensive use of synthetic amino acids is impractical at present because of the cost.

The popular opinion that a man cannot live or perform hard labour without a big "juicy steak" is not convincing in the light of these experiments. In fact, it has become increasingly evident that vegetable proteins can supplement each other and be adequate in every respect.

Two firms in the United States are now producing a "Multi-Purpose Meal," which is for the purpose of emergency feeding. It is composed of soy grits, dehydrated vegetables and seasonings, and sells for three annas a meal. Two and one-quarter ounces, dry weight, of this highly nutritious meal contains one third of the recommended daily allowances of the National Research Council, for a man doing sedentary work. It keeps well over long periods without refrigeration and yet is highly palatable. This would indicate that vegetables, in the proper balance, can feed the human race adequately.

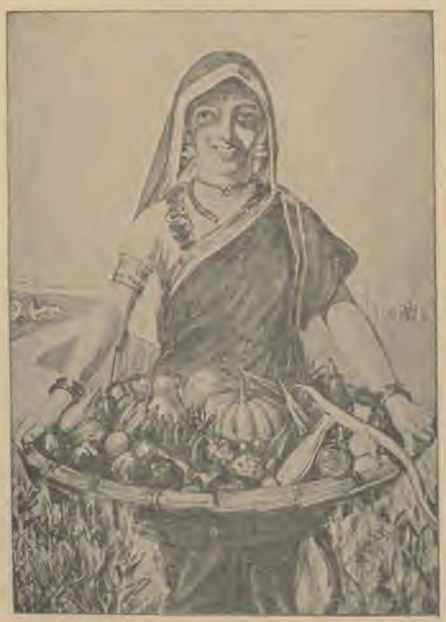
Carbohydrates and fats represent the energy foods which supply fuel to keep the body machine working. We generally think of sugars as our chief sources of energy, but cereals and vegetables are excellent sources. Not only do they supply calories, but with every portion vitamins and minerals are also supplied.

Scientific experiments have proved that vegetable fats, irrespective of whether the fat was margarine, corn, olive, peanut, or soybean oils, can serve adequately in place of butterfat in regard to growth, reproduction, and lactation if the diet is otherwise nutritionally satisfactory. And now we have two excellent vegetable spreads: margarine and soy butter.

Vitamins are vital nutrients necessary for health, for growth and development, for regulation of body processes, and for protection against certain nutritional deficiency diseases.

Minerals are builders of strong teeth and sound bones, ingredients of the blood and body tissues, and, like the vitamins, are regulators of body processes such as breathing, digestion, and oxidation.

The nutritive value of most vegetable greens is excellent, and they are now coming into their own as a source of important protective factors. Dr. E. V. McCollum was one of the first scientists to observe that the leaf of vegetables is a complete food, and leafy vegetables are outstanding among foods that supply our vitamin and mineral needs.



The green and yellow vegetables provide vitamins A, B, C, and iron. Some of them also contribute significant amounts of vitamins B and niacin, along with the minerals calcium and phosphorus. Spinach, Swiss chard, and beet greens contain large quantities of the minerals phosphorus and iron, but, unfortunately, because they contain other substances, the body can absorb very little of them. Nevertheless, the vitamins A, B, C, and G are available and present in relatively large quantities.

The tubers, chief of which are potatoes, because of the quantity consumed by the average person, provide an excellent source of minerals and vitamins. Tomatoes are recognized as one of the very best sources of vitamins, especially A, the B complex, C, and K.

The legume seeds, beans and peas in particular, are valuable human foods. Although the common bean protein is not completely adequate for normal nutrition, it can be made adequate by supplementing it with foods high in the missing amino acids, such as wheat germ, soy flour, or peanuts.

The protein efficiency of navy beans was increased 100 per cent by the addition of amino acids from sunflower seeds. Beans are usually rich in mineral salts, particularly the salts of calcium, iron, copper, and certain minor elements, as cobalt, manganese, and zinc. Green string beans furnish appreciable amounts of vitamins A and C. All beans are justly famous for their content of the B complex vitamins.

Soybean protein has been found to be well supplied with all the essential amino acids with one exception, possibly a slight deficiency in tryphophan. Soy-beans are an excellent source of vitamins B, niacin, and G, and the minerals calcium and iron. Green peas are an excellent source of vitamin A, B complex, and C, with a good supply of minerals.

Besides the vegetables mentioned we have on the market quantities of other nutritious vegetables, all supplying vitamins and minerals in varying amounts. So if vegetables, grown in mineral-rich soil, cooked correctly, and eaten raw are all wed to supply a liberal part of the diet, it is difficult to provide a diet deficient in vitamins and minerals.

Water is another regulator which plays a part in all body processes and in all cell activity. It is the body's solvent. In co-operation with chemicals it breaks down the food and prepares it for absorption and use in the cells. It is the medium of chemical activities in the body, which are legion.

Legumes are half water, tubers three-fourths water, and leafy vegetables around 90 per cent water, which is a great assistance in supplying the quantity of water the body requires. Six to eight glasses of liquid are required in addition to that derived from the food.

Many vegetables possess another virtue because of their more or less fibrous character. For this characteristic the French called spinach "belly broom," which indicates its value as roughage, which is so important for proper elimination.

As more scientific information becomes available, it becomes increasingly apparent that vegetables can do all the balancing in the diet so that it may be adequate in every respect. Try letting them do the balancing for you.

GAS AND INDIGESTION

GEORGE A. SKINNER, M.D.

THESE terms are commonly used in connection with conditions that cause uneasiness or pain in various portions of the abdomen. Most of us are somewhat hazy as to exactly where the stomach is, and so everything in the abdominal cavity is commonly called "the stomach."

What we call "indigestion" is almost invariably blamed upon the stomach, though that organ is mostly only a container and does not have a great deal to do with the active processes of digestion. It may be, and sometimes is, partly at fault; but much more often it is the "innocent bystander" and is blamed for something for which it is not responsible.

"Indigestion" is a rather indefinite term, usually applied to a condition of discomfort after a heavy meal or unusual combination of foods. As the abdomen is often somewhat distended and indefinite pains are present, a stomach-ache is often the main complaint. Should nausea and vomiting accompany this pain, the victim is sure that the stomach alone is at fault. As the stomach is much in evidence under these circumstances, the conclusion is not illogical, though usually erroneous.

Most of the disturbances of digestion come from other sources than the stomach. It is true that digestion starts in the mouth and continues in the stomach, but it is not much more than a start, which is to be completed in other parts of the digestive tract, mostly the small intestine. The small first portion of this important canal is so short that it was originally measured in finger breadths, and only twelve of these, hence the name "duodenum." This indicates that it is only about nine or ten inches long, yet it completes much of the digestive process. It is connected directly to the outlet of the stomach, hence anything wrong there causes an immediate response in the stomach. If the gall-bladder is sick, if there is appendicitis, if one eats when very tired, or if a person has a severe nervous shock, such as news of death or serious accident, the immediate effect may be in sickness of the stomach, possibly with vomiting. Hence not only physical effects in other organs, but many and varied nervous conditions are intimately connected with the condition we call "indigestion."

When one thinks of the vast amount of food that some of us consume at a big meal, and the three meals a day, together with a few side snacks, it is not surprising that we have that "full" feeling after eating. Immediately the stomach commences mixing this food thoroughly, and little by little it passes into the intestines through an efficient valve where stomach and intestine join. Gradually the distension lessens, but it is usually several hours before the stomach is completely emptied. Many observers state that most of the fluids pass through rapidly, and when much of the meal is fluid the stomach apparently becomes empty rapidly. At least the stretching rapidly diminishes so that in an hour or so there is much less evidence of what we have consumed.

If digestion is relatively normal, we go about our activities and give it no thought. But sometimes there is an apparent load remaining in the stomach that "feels like lead," and we say that it is "indigestion." This may be partly correct, but more often it is delayed action of the stomach in emptying, and may be due to causes farther down the digestive tract, such as a spasm at the valve at the stomach outlet, and then from back pressure the esophagus relaxes and part of the stomach contents is returned to the mouth. If this is only a little, we speak of it as "regurgitation," and usually there is no unpleasant sensation, though sometimes a somewhat bitter taste is had from an admixture of bile, when we may speak of "biliousness." If the amount is considerable and comes in several waves, we call it "vomiting," and sometimes this serves a useful purpose. It may relieve a greatly distended stomach and at the same time remove some injurious materials. These may be food materials contaminated with harmful germs. They may be chemical poisons, for fortunately many poisons are irritants to the stomach and cause vomiting. This is a valuable protective mechanism, but it is always unpleasant and not always free from danger. In elderly persons the strain may cause rupture of a tiny blood vessel in some vital organ, and serious symptoms, such as partial paralysis, may result.

Sometimes the spasms of the intestines themselves are severe and the pain violent (colic). Such conditions are not only disagreeable but may be dangerous and should always be relieved as soon as possible.

The problems of gas in the stomach or in the intestines are more or less intimately associated with acute or permanent derangements of the digestive tract. As there are many causes of indigestion, a thorough search should be made for the cause when the symptoms are annoying or frequent. This may be an intestinal or stomach ulcer, gallstones or liver trouble, or too much laxative. It may be due to a diseased pancreas, and sometimes diabetes is first announced through indirect symptoms from the stomach. It may be from faulty chemical action in the digestive tract. Inflammation of the large intestine, or "colitis," may be at the foundation of the trouble. Chronic appendicitis has been known to cause many digestive upsets. So a careful examination by a specialist, if possible, is desirable. To diagnose diseases of the digestive tract it is now necessary to use so many and such complicated instruments and laboratory tests that few, other than those who really specialize, are fully qualified to make such investigations.

Most of the gas that ordinarily annoys us is simply air that we have swallowed with our food or fluids. Much of the passing of this gas or air is from habit and can largely be controlled, if one makes up his mind to that fact. Some gas is at times formed in the digestive tract by fermentation, but more often by a more active process of decay, or putrefaction. This should not take place, and usually does not unless there has been something to upset the normal balance of the millions of little germs or plants in the digestive tract, called "intestinal flora." These normally serve a useful purpose and protect us from many dangers. Sometimes some "wild" or enemy plants gain entrance and destroy so many of the valuable germs that normal digestive processes are much dis-

turbed. Usually a restoration of these normal plants may be accomplished by using buttermilk, acidophilus milk, cottage cheese, or the formerly popular "Bulgarian" milk or "yogurt," which is again being used to some extent.

Unpleasant or embarrassing manifestations of gas are often due to "nervousness." If these are not readily controlled by relatively simple dietetic measures, there may be a physical cause, which may be removable. If no physical cause is found, the emotional ones are almost certain, and are largely a matter of mental control.

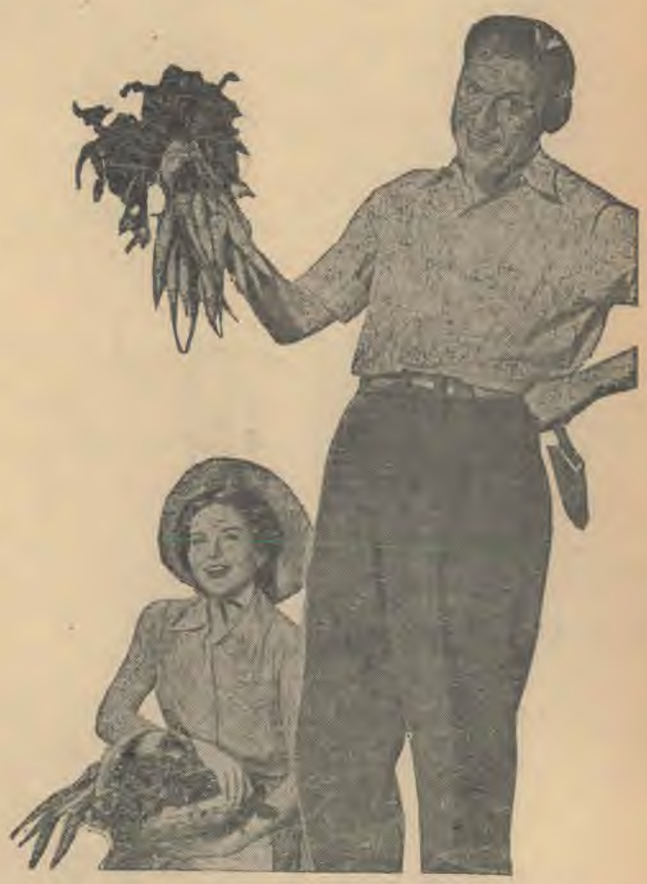
Any relatively sudden change in eating habits, appetite, loss of weight without apparent cause, especially in persons in mid-life, should be at once investigated. Unfortunately, sometimes serious diseases of the stomach may exist a long time with only minor annoyances. As such conditions are frequently entirely curable if taken early, it is most desirable to find them while they can be controlled. Cancer of the stomach occurs often enough so that if there is loss of weight and recurring minor digestive upsets, even though there may be no pain, an immediate search for the cause should be made.

Our digestive processes are usually so perfect that we are likely to neglect minor troubles. Naturally not every little upset, especially in youth, is a sign of severe trouble. Most childhood upsets are due to too much of some favourite food, too many foods mixed at one time, or to eating when fatigued. It is really marvellous what a growing boy can consume and soon be hungry again. But sometimes even this may be overdone.

Reasonable care in the quality and quantity of our food, a fair regularity as to meal-times, time enough to chew the food properly and no hurry at the table will do much to eliminate digestive troubles. An occasional fast will sometimes correct minor difficulties. But always in cases of doubt it is wise to seek accurate information and expert correction at the earliest time possible.

A HEALTHY BODY — A HEALTHY MIND

GLADYS M. HURD, R. N.



IN THESE days of rationing it is not always possible to get the food one has been accustomed to. Maybe in one way this is a good thing as many people are now eating foods which are good for them but which otherwise they would not have tried. However, it is up to each person with the responsibility of feeding the family to study the subject of diet and then to do the very best he can with what he has at hand.

All foods are usually classed as carbohydrates, fats, and proteins. Then in addition we have mineral salts, vitamins, water, and cellulose which are considered as essentials of every diet.

Grains, which form the staple diet of most of the people of India, are classed as carbohydrates. If possible, more than one of these should be included in the diet. Whole wheat when used without discarding the bran is a rich source of vitamin B. It is better not to use milled rice unless it has been parboiled first. However, home pounded rice can be over pounded. This must be avoided. Care must be taken in the washing and cooking of the rice. Excessive washing destroys much of the vitamin B except in the case of parboiled rice. Rice should always be cooked in little enough water so that all of the water is absorbed by the rice during the cooking process. Bajri or cambu equals whole wheat as a very nutritious grain. Ragi is a good source of calcium, also of vitamin B.

As most curries are cooked with oil, most diets contain sufficient fat. In fact the error is probably too often on the other side. Most curries do not require as much oil as many think they do. Study should be made of how to use as little oil as possible.

Under protein foods are classed dhals, grams, peanuts, milk, eggs, cheese curds, meat, fish, and fowl. Sufficient protein can be obtained without the use of the last three, and it would be better if they were left out of the diet, a milk supply in the form of fresh milk, buttermilk, curds, or cottage cheese can be secured, a very good form of calcium will thus be provided. Seasoned cheese should not be used. Dhals, grams and peanuts are available in most parts of India and should be used daily. It is better to use several different kinds of grams and dhals instead of just the same kind all the time. Proteins are composed of about twenty-two amino acids which are the building bricks of tissue. Not every protein contains all of the amino acids but each food contains different ones so that a variety is needed in order to obtain all of the necessary ones. Fortunate indeed is the family to whom soya beans are available. They contain a fine grade of protein besides being a good source of calcium, phosphorus, iron, vitamin A, vitamin B, and if sprouted, of vitamin C. Peanuts also contain a good grade of protein. In speaking of peanuts, Carolyn Valentine, B. S., says in an article in the R. N. magazine of

September, 1943, "Within the protein is contained most of the essential amino acids thus making peanuts a most desirable protein source. They may be considered a concentrated source of high quality, *readily digestible* protein."

Milk is the best source of calcium. However, if leafy vegetables are used freely, sufficient calcium will be provided. Drumstick leaves are a particularly good source of calcium.

If foods containing calcium are supplied in sufficient quantity, the required amount of phosphorus will also probably be supplied.

Jaggary is a very good source of iron and should be used as far as possible in place of sugar. Coffee made from burned wheat or other grains and sweetened with jaggary is a healthful drink. Satisfy the children's desire for sweets occasionally by giving them toffee made with unskinned peanuts and jaggary. This is a nutritious sweet. Bazaar sweets made with sugar and exposed to the flies and dust of the streets, are dangerous.

Vitamin A is found in green leafy vegetables—the greener the better and the fresher the better. It is not destroyed by ordinary cooking. Ripe papayas and mangoes are also good sources of this vitamin.

Vitamin B is contained in the bran of grains. For this reason the bran should not be sifted out from the flour used in making chappaties, bhakar, etc. Parboiled rice contains a much higher content of vitamin B after washing and cooking than does raw rice. In fact parboiled milled rice contains more vitamin B than home pounded raw rice does, parboiled home pounded rice is the best type of all to use. Peanuts are an excellent source of vitamin B. The red skin contains twice as much of this vitamin as the peanut itself does. Therefore, instead of being thrown away, this red skin should be eaten. It can be retained even when making peanut butter or sweets. Every person should eat a handful of peanuts daily, especially when the main part of the diet is rice.

Citrus fruits (oranges, lemons, limes, pomelos, etc.) and tomatoes are a very good source of vitamin C. The tomatoes should be eaten raw as this vitamin is destroyed by cooking. If you have to choose between giving the tomatoes raw or putting them in curry, give them raw. Guavas are a still better source of vitamin C than these foods just mentioned. Then there is another fruit grown in most parts of India which is a super-excellent source of this vitamin. It is the small Indian gooseberry or *amla* or *nellikai*. Every garden should have at least one of these trees. Let the children eat of them freely. If you wish to make them into pickle, use the hot water and salt method. The vitamin is destroyed when pickle is prepared from this fruit with oil and curry stuffs. All the whole grams, dried peas and beans should be sprouted as this increases the vitamin C content a great deal. We sprout green gram by washing and soaking overnight. Then the gram is lifted from the water and left damp for several hours before cooking. It can be eaten raw and should not be cooked for more than ten minutes. Otherwise the vitamin C gained by sprouting is lost. Other grams and grains may be harder to sprout than green gram. The following method is described in "Food" by Sir Robert McCarrison: "Dhal, gram, wheat, unsplit peas or any other grain is first soaked in water for twenty-four hours and is then spread out on damp earth or on a damp blanket and covered over with a clean gunny sack which is kept moist by sprinkling water upon it from time to time. After two or three days the grains will have sprouted and be ready for use."

Soda should *never* be used in cooking as it destroys the vitamins. On the other hand, tamarind added to foods has the effect of preserving the vitamins.

Encourage members of your family to drink water freely, as enough is not obtained through the food.

Cellulose is obtained by leaving on the skins of vegetables whenever they are edible and most vegetable skins are edible. In many cases the tough outer portion can be scraped off leaving ample cellulose and also preserving the vitamins and minerals which in many cases are found in the layer next to the skin. Food value is also saved by washing vegetables before cutting instead of afterward as is done so many times. Fruits also contain cellulose besides being sources of minerals and vitamins. They help to satisfy the "sweet-tooth" which most youngsters have.

The subject of diet is deep and calls for study on the part of those whose duty it is to feed the family. Much benefit can be derived from Government Health Bulletin No. 23. Secure a copy and use it as a future guide and reference.

Tact is the knack of making a point without making an enemy.

* * *

Growing old is no more than a bad habit which a busy man has no time for.

30,000,000 GERMS ON 1 FLY

* *

S. R. WINTERS

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THAT harmless-looking fly, making a bee-line for Uncle Joe's bald spot as he takes his after-dinner nap, is often a source of considerable amusement to young onlookers, but a great annoyance to Uncle Joe. There is nothing amusing about an insect that can carry nearly 30,000,000 bacteria on its hairy feet and legs. And "annoying" is hardly the word to describe the disease carrier that caused the death of more American soldiers in the Spanish-American War than did all the bullets of the Spaniards. If that is not enough to scare Uncle Joe into getting the fly swatter, tell him to look at these figures: Between April and September one wintered-over female fly may theoretically have 5,598,720,000,000 descendants, if all her offspring live and start laying eggs at the proper time.

If the fly were shown as large as an elephant, it would not be out of proportion to the harm it does in the world. But so common is the ordinary housefly that most persons are deceived by its innocent appearance. However, if the naked eye could see it as it appears through a microscope or in a much-enlarged photograph, this pest would assume a likeness as evil and venomous as the tarantula. Beneath two horn-like claws on the feet are two pads, which are the answer to why flies can cling to the window-pane and walk upside down on the ceiling. Its body, legs, and feet are covered with a mass of tiny bristling hairs. An active, greedy tongue is spread over with a sticky glue. On those hairs, and mixed in with the glue, are to be found the millions of deadly bacteria, perhaps the germs of typhoid fever, tuberculosis, or dysentery. Think of these bacteria, picked up from some infected refuse pile being dragged over the food you are about to eat.

First, it is necessary to understand the breeding habits of the fly, *Musca domestica*. Every year a certain number of flies and their larvæ live

through the winter. Where do flies go in the wintertime? Their place of hibernation may be behind a picture, or moulding, or a piece of torn wallpaper. In the early spring a female emerges to look for a moist, filthy place to lay her eggs. The most popular breeding places are in horse manure piles and fermenting vegetable matter; the moist excrement of hogs, chickens, and man; garbage, fermenting farm wastes, and cattle manure. The white eggs are laid in masses of about 150 and take only from ten to twenty-four hours to hatch.

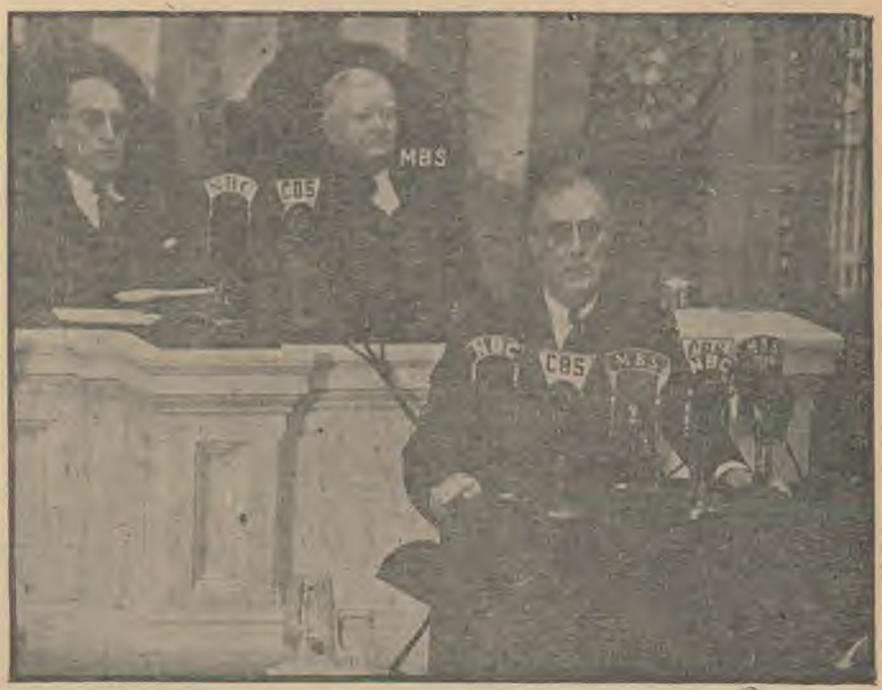
The resulting maggots or larvæ, also white, and about a half inch in length, travel considerable distances to find a suitable place in which to change into flies. This change is known as the pupa, or resting, stage. Pupae resemble chrysalises, the baby flies being wrapped in a barrel-shaped, tough, protecting shell, yellow or brown according to age. In warm weather the pupal stage lasts from three to six days, and in cold weather it may last many weeks. Finally, the grown fly pushes open the end of the pupal case, works its way to the surface of the refuse, spreads its wings—which scientists estimate move at the rate of 330 beats per second—and is ready to begin its malignant career of germ carrying. From two and a half to twenty days after it emerges from the chrysalis, the female fly is ready to lay eggs, and in a normal lifetime of from two to twelve weeks one female may deposit from two to twenty-one egg masses.

The problem of the housefly may be attacked in several ways, but to do it effectively, several of these must be employed. Naturally, the best means is to destroy the eggs or maggots. This can be done by making sure that all garbage and manure is removed twice a week if these articles are not screened or treated with chemicals. Hellebore (a plant material), DDT, borax, and calcium superphosphate are recommended as effective chemicals for fly prevention on farms and other places where manure is stored in large quantities. Instructions for the proper use of these substances are given in the U. S. Department of Agriculture leaflet No. 182, prepared by Dr. F. C. Bishopp, which may be obtained free on written request to that department in Washington, D. C.

However, no matter how diligent one may be in his efforts to prevent fly breeding, some flies will be hatched, and direct action against the flies themselves must be taken. The earlier in the season flies are killed, the less numerous they will be during the latter part of the summer, when they are most bothersome and when the human death-rate from typhoid is about five times as great as it is during the winter months, when the flies are not active.

The best results are to be gained through the proper screening of homes and making sure that screen-doors open outward. But even with the best job of screening, some flies find their way into the house. Here sprays, traps, poisons, and swatters can be put to use. An improved fly-spray has recently been perfected by the Department of Agriculture and is now being used. A so-called "bomb," this spray emits a smokelike fog at the mere twist of the thumb, is not harmful to man, but is inflammable. This new method converts pyrethrum (a powerful insecticide) into a cross between a fumigating gas and an ordinary fly-spray and remains suspended in the air for as long a time as it will take to kill all the insects in a room. It also has the advantage of penetrating into hidden crevices where flies might find refuge from an ordinary liquid spray. One release of this aerosol, as the knock-out smoke is called, will kill all the flies in a room ten feet square and ten feet high, and each bomb holds enough to keep ten such rooms free from flies for fifty days.

But if in spite of sprays, poisons, and traps there is still a stray fly buzzing menacingly around the dinner-table, balancing itself on the rim of a drinking glass, or hovering over Uncle Joe's bald pate, think of the millions of bacteria clinging to its ugly, hairy body, and run, don't walk, to the nearest fly swatter.



The late President Roosevelt—a victim of this disease.

INFANTILE PARALYSIS

JANE STAFFORD

Science Service Medical Writer

A year-round war is being fought against this crippling disease in the U.S.

THE WAR on infantile paralysis is fought all year round, but summer and early fall are the seasons for the really big battles because most cases and serious outbreaks occur at this time.

Medical scientists have opened five fronts in their year-round war against this dreaded crippling disease of children and young adults, which is also known as "poliomyelitis," or "polio" for short.

On one front the war is being pushed by what might be called the chemical warfare division. These are the men and women who laboriously test chemical remedies, one after another, in the hope of finding one that will destroy the disabling virus of polio after it has entered the body.

The search for a chemical cure for polio was enormously helped by the discovery of one strain of the poliomyelitis virus which would grow in the

cotton rat. Previously the only animals that could help the polio fighters in this search were monkeys, which are expensive and could not be obtained by the hundreds that were needed. But even with the cotton rats there were difficulties to be surmounted. Dr. Don W. Gudakunst describes these as follows:

"These animals had to be trapped alive and shipped to the laboratory. This was anything but satisfactory. The wild animals had many diseases of their own which interfered with the infantile paralysis studies. The first problem was one of breeding them in captivity free from disease. But when pairs of the wild rats were placed in a cage, almost invariably morning found but one survivor. They simply would not mate; instead they fought to the death.

"In the laboratory there were scientists with a knowledge of animal psychology, and the difficulty was solved by the simple expedient of dipping both male and female in a creosote bath. Once their odours were alike, they mated, and now the laboratory can supply disease-free cotton rats to workers in all parts of the country."

With plenty of rats finally available, the scientists started testing existing drugs which had proved effective in fighting pneumonia, streptococcus infections, and other diseases.

Unfortunately, four years of such painstaking research has not yet yielded a cure for infantile paralysis. None of the known drugs and none of the many modifications of existing sulfa compounds made for this chemical war on polio have proved effective. But the search goes on. Tonight more animals will be infected, more drugs given, for tomorrow might be the historic day on which a chemical remedy for polio is to be found.

Chemical warfare is directed toward curing polio. Prevention is another front on which this disease war is waged. On this front the epidemiologists, "the detectives of medicine," fight.

It is known that the virus is excreted from the body through the bowel discharges of apparently every patient, no matter how mild the disease. It is known that many persons in contact with these patients will also be discharging the virus, and many will persist as virus carriers for months. Sewage, privies, rivers polluted with sewage—all yield virus when tested by modern laboratory methods. Flies trapped in infantile paralysis patients' homes, and also flies trapped far from these homes during epidemics, may be laden with the virus.

These clues suggest that infantile paralysis might be spread through infected food or polluted drinking-water, like typhoid fever, and that its spread might be stopped by sanitary measures which stopped the epidemics of typhoid fever which occurred every summer and beginning of winter. But the medical detectives are not satisfied that this is the answer. They point out that the pattern of spread of infantile paralysis as it occurs in nature does not suggest that it is usually spread through water-supplies. There has not been a single large outbreak reported having the well-known characteristics of a water-borne outbreak of disease. So the medical detectives search on, confident that some day they will solve the mystery of how the disease spreads, and then be able to suggest ways of prevention.

Third, fourth, and fifth fronts on the polio war are fought by doctors, nurses, physiotherapists, mental hygienists, teachers, parents, and, above all, by the patients themselves. On these fronts are concentrated efforts to help the patient recover from infantile paralysis without crippling or deformity of body or personality.

On this front is that valiant fighter, Sister Elizabeth Kenny, the Australian nurse whose "inherent mechanical ability" is credited by Dr. Gudakunst with having had much to do with the development of her now widely known and revolutionary method of treating infantile paralysis.

This treatment is sometimes called the "Sister Kenny" treatment.

The usual treatment for paralyzed limbs of infantile paralysis patients is immobilization with splints and braces. Sister Kenny substitutes carefully guided exercise, exactly the opposite. That her results are excellent is attested by reports on two series of infantile paralysis patients in an issue of *The Journal of the American Medical Association*. The National Foundation for Infantile Paralysis has approved her methods.

The Kenny treatment is a three-stage technique which begins with hot, moist flannels applied to the painful, contracted muscles.

The first and most dramatic effect is the relief from pain. When warmth has relaxed the muscle, skilful manipulation of the limb is begun by an operator who knows the human muscle system as a professional pianist knows the keyboard. Eventually, the patient himself is allowed to practise moving the limb until he can use it without help. Only *early* cases are given the Kenny treatment. When the treatment is begun in time, the typical crippling deformities of infantile paralysis are avoided, and smooth co-ordinated movement of the limb is again possible.

The "swimming" treatment, or underwater exercise, is different from the Kenny method in that it is given to *late* cases. After the limb has been immobilized with splints or braces to give perfect rest, warm water is an excellent medium in which to increase joint motion without discomfort. The "swimming" treatment at the Georgia Warm Springs Foundation is given as part of an extensive programme. A report of experiences at Children's Hospital School, Baltimore, Md., states: "If a child has recovered sufficiently so that the weight-bearing muscles have above 70 per cent of their normal power and are well balanced, walking in water furnishes an excellent means of beginning activity without danger of strain."

Miss Kenny began her methods in the Australian bush, where doctors were many miles distant. She had her first success in 1910 and immediately attempted to get medical recognition. Because her methods differed so sharply from the standard methods, they were coolly received. As recently as 1939 an Australian medical commission condemned the method completely in very detail. In March of 1940 Miss Kenny went to America. Today her treatment is believed by physicians to be the treatment of choice in early cases of infantile paralysis.

Compared to a common childhood disease such as diphtheria, infantile paralysis is relatively rare. It is about equally fatal, killing one patient for every ten patients reported, while diphtheria kills one patient in eleven reported. However, these figures probably overestimate the fatality rate of infantile paralysis and underestimate its occurrence, because there are many mild cases which are not recognized at all, or are mistakenly reported as other diseases. About 75 per cent of reported cases develop paralysis. When treatment is begun early, many of these patients recover with little or no disability.

Every parent wants to know what he can do to protect his children from this crippling malady. From what has been

told about the medical attack on this disease, it is apparent that there is as yet no cure for it, as the sulfa drugs are for pneumonia, and no protective vaccine, such as we have for preventing smallpox, diphtheria, and typhoid fever. When cases of polio appear in a community, however, certain things can be done which might limit its spread. As recently summarized in *The Journal of the American Medical Association* by Dr. Philip M. Stimson of Cornell University Medical College, these are:

Avoid using any water for drinking, swimming, or washing utensils that is possibly contaminated with sewage. Doctors know that sewage can carry the infantile paralysis germs considerable distances and for an appreciable time.

Avoid exhaustion from exertion or chilling. Overexertion and chilling during the incubation period tend to make the oncoming sickness worse.

Avoid injury to the lining membranes of nose and throat, such as that resulting from a tonsil operation. Exposure to infantile paralysis soon after tonsil removal is likely to result in a severe, even fatal, attack.

Treat every minor illness as a possible case of infantile paralysis, particularly if there is fever, headache, and some spasm of the neck, spine, and hamstrings. Very mild cases without definite paralysis are much more numerous than the cases with paralysis. Patients suspected of having this disease should be kept in bed quietly for several days and not allowed up until a competent physician or health authority says that they are well.

Try to keep home and work-places and their surroundings in good sanitary condition, and particularly destroy flies and their breeding places. Flies can carry the infantile paralysis germ, though it has not yet been proved that they can carry enough to make people sick with the disease.

"Avoid unnecessary physical contacts with other people, wash hands carefully before eating, and don't put unclean objects in the mouth," warns Dr. Stimson. "We know that many healthy people carry the virus in their intestines and that for some cases, perhaps most, the port of entry of the infection is the mouth.

"Don't prescribe or take drugs or chemicals that are intended to protect against the disease. As yet we know of none that will do this."

Although most of the fight against polio is directed toward preventing the disease and speeding the patients to recovery, scientists have not stopped trying to overcome the ravages of this disease in patients who did not get successful, early treatment.

Grown-up victims of poliomyelitis (infantile paralysis) can in many cases be helped by corrective treatment for their deformities or crippling, even though they suffered the polio attack as children many years ago.

"During a recent follow-up survey, in a group of nearly 1,800 cases, 400 were found who could be further improved by surgical intervention," according to a statement from the National Foundation for Infantile Paralysis.

This means that about one fourth of the grown-ups with a twisted foot, weak leg, or other deformity left from a childhood attack of polio could be helped by the new methods orthopedic surgeons have developed for correcting deformities. Unfortunately, many of the grown-up polio victims do not realize that they might be helped.

One patient, a married woman in her forties, the Foundation reports, had carried on at home until she could no longer step on her "good foot" because of the pain. Examination showed that the pain was due to contractures and deformities from her old infantile paralysis. She had believed from late childhood that nothing could be done to help her. But she has had an operation and today is beginning to walk without a brace, drives her own car, and sees a completely new life opening before her with new accomplishments and ability to take part in neighbourhood activities without feeling frustrated or inferior because of her handicap and deformity.

CHILDREN'S HEADACHES

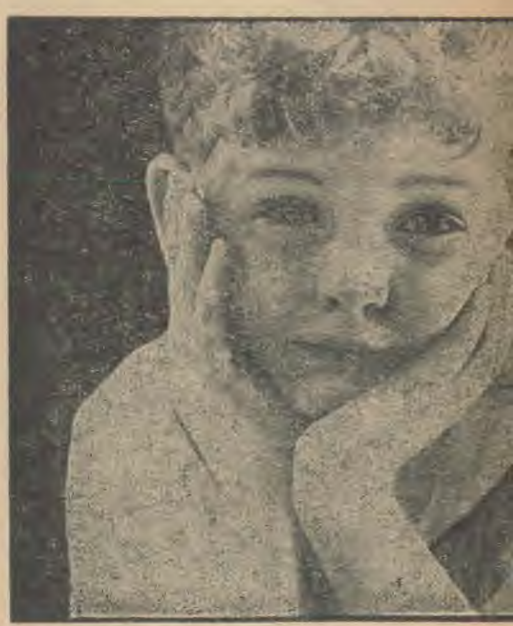
ALTON GOLDBLOOM

"WHEN the child was grown it fell on a day that he went out to his father to the reapers. And he said unto his father, my head, my head. And he said to a lad, carry him to his mother." (2 Kings 4: 18, 19.)

The above Biblical quotation gives a graphic description of a severe headache in a small boy, apparently followed by loss of consciousness; probably an attack of sunstroke. It is an example of one of the many causes of headaches in young children. Headaches in children present the same difficulties to the physician that they do in adults, because of the numerous and widely dissimilar conditions that may cause them. They may be anything from "headaches of convenience" to brain tumours.

A young child may, and often does, imitate his parents. He may be quick to grasp the value of the excuse of a headache as a means of escape from an unpleasant or undesirable task. Just as the mother may plead a headache in order to avoid a social function, so may the child plead a headache in the face of a task which he fears may be too difficult or which may prove distasteful. It is an escape headache. This was well demonstrated in the case of an adolescent girl who was unequal to the tasks of school work. She did not possess the mental equipment necessary to compete successfully with her comrades in the higher grades. She had headaches. Tests of her intelligence quickly demonstrated her incapacity, and removal from the school immediately cured her headaches.

One of the better-known causes of headaches in children is eye strain, particularly astigmatism. Gross defects in vision may be evident by simple tests, but astigmatism can be discovered only by special means. Proper eye examination by a qualified ophthalmologist should therefore be the first step in attempting to solve the problem of headaches in young children.



Another important cause of headaches is anæmia. Physicians who deal extensively with children encounter many instances in which simple blood examinations, hæmoglobin and red cells, will quickly solve the problem of headaches in an adolescent child. Relief of the headaches is successfully accomplished through adequate treatment of the anæmia. Exposure to sun and to glare may cause severe, temporary headaches; in northern climates in winter, this is not infrequently found in children who play outside on bright days. These children must have their eyes protected by plastic or unbreakable goggles. Poor ventilation and noxious gases may also cause headaches in children.

Children often complain of headaches on arising in the morning and from naps. These headaches may represent a need for sugar. Some children use their sugar more rapidly than others; some need more in their diet. This need may express itself in headaches, relieved by taking something sweet. We have come a long way from the days when people believed that sweets were "bad" for children. We know that actively playing children need extra sugar just as a briskly burning furnace needs extra coal. Many such headaches have been quickly relieved or prevented by the judicious giving of sugar at the proper time.

These are a few of the causes of headaches in children which may be regarded as not associated with serious diseases. Of course these are highly important and deserve careful investigation and intelligent treatment. There are other causes of headache, however, of much more serious import; we might attempt to consider a few of these in order to indicate that headaches must never be treated lightly and that in all instances of persistent or recurrent headaches in children, intelligent and careful search must be made for the underlying cause.

Migraine is a common disorder among adults that shows strong familial tendencies and often manifests itself in the children. The manifestations may often be those of abdominal pain and vomiting; but not infrequently the children of parents suffering from migraine may also have headaches. In younger children the abdominal symptoms may predominate, only to be replaced by headaches as the child approaches puberty. We have learned a little more about migraine in recent years, and are perhaps coming a little nearer to an understanding of the problem. Some drugs, certain types of diet, and other means have been used in an attempt to combat this trying disorder.

Migraine has two first cousins; one is allergy. A small number of children, indeed adults too, have been relieved of their symptoms with the removal from their diet of certain foods to which they were sensitive. The other first cousin is epilepsy. With proper means of investigation it can be shown that some individuals suffering from migraine have the same type of abnormal "brain waves" that is found in epilepsy. Great progress has been made toward relief of epilepsy, and migraine which is of this type will often also yield to the same form of treatment.

Persistent headaches when accompanied by unsteady gait, or vomiting, without nausea or failing vision are symptoms that cannot be lightly regarded. Tumours of the brain, old hæmorrhages, cysts and chronic lead poisoning may give these symptoms. These are the graver causes of headaches in children, and must be treated

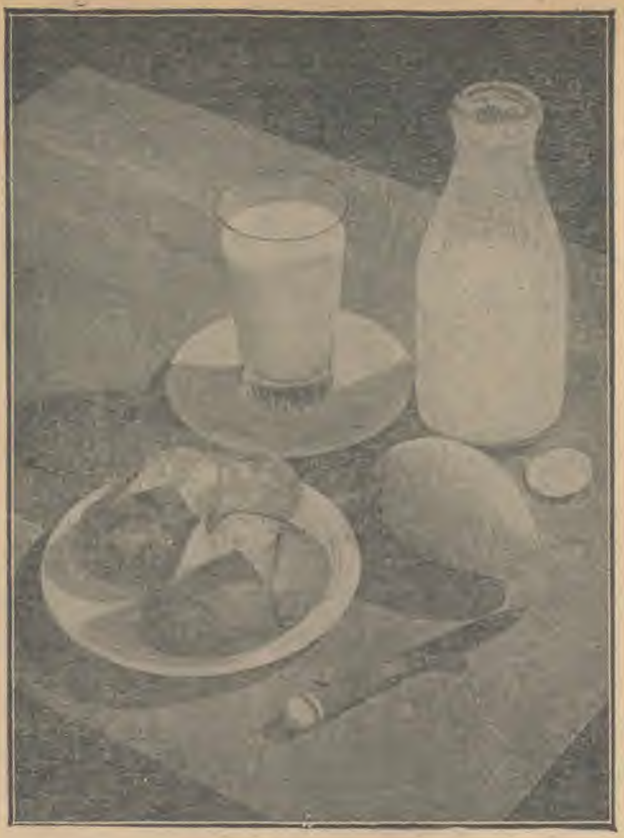
without delay. Persistent headaches in children following a head injury no matter how many months or years before, demand the same urgent attention. Such symptoms cannot be left to chance, nor may they be palliated by home remedies; they require the intelligent attention of a competent neurologist.

Acute illnesses that begin with high fever may cause headaches. They are symptoms of scarlet fever, and occasionally of measles, chickenpox, and even German measles. In the first day or two of mumps, headaches may be quite severe, in fact they may be caused by a form of meningitis that not infrequently accompanies the onset of mumps. So, too, at the beginning of typhoid fever headaches may be quite severe. The headache in all these diseases usually occurs in the first few hours and lasts no longer than a day or two. Forms of meningitis naturally cause severe headaches, but it is hardly the function of parents to familiarize themselves with the symptoms of all such diseases. They must only realize that such headaches require medical attention and sometimes urgently.

The kidneys cannot be disregarded in any consideration of headaches in children, for headaches often accompany severe kidney disorders as they do in adults. Here again sage medical advice is needed for solution of the problem.

It should be evident then, that headaches in young children may result from a variety of causes; so wide, in fact, that it may require consummate medical skill and wise judgment to ferret out the cause in each particular instance. Headaches are not just symptoms that can be treated with headache tablets or with purgatives. Headaches may be the warnings of deep seated disease, requiring anything from changes in diet to brain operations for their alleviation. Headache is a symptom of trouble, and not the trouble itself. The progressive physician, with the facilities of the modern hospital, is prepared to cope with the vexed problems of headaches in children.

Often too the child psychiatrist may be of help. The nose and throat doctor, the eye doctor, the neurologist, the neurosurgeon, the psychiatrist, and the pediatrician, singly or together, may be the ones to bring relief through proper diagnosis. Headaches are not to be neglected or set aside without the advantages of a full investigation into the underlying causes. They are certainly not to be treated with headache tablets, except for temporary relief and then only on the advice of the family physician. All the problems of headaches are not readily solved, but many are; and not a few of these are cured by prompt and intelligent treatment. Many types may be neglected beyond the hopes of successful relief, as in some forms of brain disorders, unless promptly recognized and successfully treated. Here the nose and throat surgeon will find a sinusitis, the eye doctor will discover astigmatism, another child will be found to have migraine and still another some deep seated brain disorder; all manifested by headaches. Few other problems require such concerted action from the various branches of the medical profession.—*Hygeia.*



LET'S MAKE MILK SAFE!

What Can We Do to Combat Undulant Fever?

T. Arthur Turner

"DADDY-E-E! Mother!" cried little Jeanne at the top of her lungs, as she danced up and down and clapped her hands in excited anticipation. "The goats are coming!"

Bob Healy and his wife came from the back of the house and looked down the long drive, where a stock truck was turning into their place off the main highway. Ten-year-old Robbie came racing from the clump of woods near the garage and reached the rest of the family as the truck came to a stop in front of them.

Panting from his run, Robbie peered intently through the boards of the truck.

"They ain't goats!" he cried. "They're deer!"

Martha Healy laughed. "Your animal lore is as weak as your grammar," she said.

Robbie, whose knowledge of goats had been limited to the plain or garden variety of goat, looked dubious.

"They're goats all right," Bob Healy reassured his son. "Genuine blooded Swiss goats. They give wonderful milk. If you and Jeanne drink it every day, you'll grow up to be well and strong, and she'll probably be a very beautiful girl."

Jeanne gravely said: "I like milk. I'm going to be a nurse. I like goats, too."

The whole family took part in turning the handsome animals into the high-fenced enclosure prepared for them, and the truck drove off. The goats were tame. As Jeanne patted and fed them, Bob reflected contentedly that the group looked like a picture by Marie Laurencin.

When Bob Healy had realized his dream of getting ten acres in the country, a well-to-do uncle who raised prize goats had written asking if he would like a gift of two does and a buck. Bob was dubious, but he knew that he could not keep the contents of the letter from his family, and once they heard of the offer, any possible case against the goats was as good as lost. And now he was as excited and delighted as were the children. Indeed, the goats were gentle and beautiful animals, clean, swift, graceful as deer. Milking the animals was, of course, a responsibility; but he didn't mind too much, and with a great deal of laughter Martha learned to milk so that she could take care of things when Bob had to be away.

True to her prediction, little Jeanne liked both the goats and their milk. But Robbie, who was a conservative in his eating habits, stuck to cow's milk that they bought at the dairy plant in town. Hardly a day passed that did not increase Bob's conviction that his move to the country was a wise one. Every evening, as he drove up to the house, the act of opening the car door seemed to signalize a sudden feeling of peace and contentment flooding into his soul, a feeling that somehow reminded him of poems by Wordsworth that he had read in English at college.

But there was, to quote dubiously from someone, a canker in the cheese.

Little Jeanne had no appetite. She slept badly, seemed nervous and listless, irritable and apathetic, by turns. At first Martha thought it was one of those unaccountable spells that children go through—a cold, the grippe, any one of those things vaguely defined in the heads of parents, which they call by names equally vague.

But it didn't go away.

"She seems a little feverish," Bob said one night after they put her to bed. "Perhaps I should call Mike."

Mike was Dr. Michael Hunter, a college friend of Bob's who had done well in medicine—very well indeed. The doctor who had been practising in the village near-by had gone off to war, and the people had to depend on the doctors in town.

Bob was fortunate in finding Dr. Hunter at home. He described the symptoms as well as he could over the telephone.

"I tell you what," he told Bob. "It doesn't seem to be anything acute. Keep her in bed and bring her to town on Tuesday. I'll have a good look at her then."

"O. K., Mike," said Bob, and hung up.

But Dr. Hunter saw Jeanne before Tuesday.

That very night her temperature skyrocketed, and by the next night the child was in the hospital. Dr. Hunter was not long in finding the seat of the trouble.

"It's osteomyelitis," he told Bob over the telephone.

"Osteo—what in the world is that?"

"You might as well know, Bob, it's not very nice. It's an infection of the bone, in her case the thigh bone."

"But where in the world would she get that?" Bob asked in a hollow, strained voice that he would hardly recognize as his own.

"That's hard to say. Somehow the germ got in her blood stream and managed to take hold at that spot. Maybe she accidentally bruised herself there—it's not certain. I tell you what, old man; come in tomorrow and we'll talk it over. I'm having tests made, and I should have most of the evidence by then. Try not to worry, and get some sleep."

But Bob didn't get much rest. Martha stayed right at the hospital in town. After a gloomy, makeshift meal which he tried to put together for himself and young Robbie, he paced the floor. But the next day finally came, and he

found himself in Mike's office. Dr. Hunter wasted no time.

"I haven't had a chance to talk to Martha, so I'll ask you," he said. "Does Jeanne ever drink any raw, uninspected milk?"

"Why, yes," Bob said. "We have a little herd of fancy goats, but there can't be anything wrong with their milk. My uncle—"

"Most osteomyelitis," Dr. Hunter interrupted, "is caused by one or another variety of pus germs, usually staphylococci. But do you know what we found in Jeanne's case? *Brucella melitensis*. It's the variety of the microbe infecting goats that causes undulant fever."

Undulant fever! Bob had heard of undulant fever. But to associate it with his own little girl, and in this terrible way—that was something else again.

But in her bones—" Bob was incredulous.

"Sit down, Bob," said Dr. Hunter. "Undulant fever, or brucellosis, is what doctors call a 'protean' disease; that is, it makes itself evident in many different ways. Jeanne's bone infection is one of them, although her case is comparatively rare. Mostly it's a chronic affair which shows up in constant tiredness, nervousness, and extreme irritability."

"But what are you going to do?" Bob cried.

"First we're going to try to lick this infection, which might be pretty tough. Then you and Martha are going to see that Jeanne gets plenty of rest and that her nutrition is kept at a high level. Then you're going to see that she and Robbie get safe milk. If that is done, she probably will lead a normal life. In many ways, Jeanne is lucky—we found out early what is wrong with her. Some such persons go through life regarded as 'neurasthenics' by their friends and relatives, and, believe me, they lead quite unhappy lives."

As Dr. Hunter said, the case of Jeanne is not typical of brucellosis, but it illustrates the important point that it is a greatly underestimated crippler. Manifesting itself in a great variety of ways, it can be mistaken for influenza, malaria, or tuberculosis. Sometimes it flares quickly into an acute stage with high fever, weakness, and severe headache. Other times it comes on slowly, rising to what seems like a mild attack of grippe, then lapsing into chronicity. There is loss of appetite, tiredness; sometimes pleurisy pains and arthritis. More rare is the acute disease that ends fatally.

Contrary to popular belief, there is no real evidence that undulant fever is spreading; perhaps there are fewer actual cases now than ever before. The truth is that it has always been extremely widespread, and now, with increased knowledge and improved health facilities, is being recognized with increasing frequency. Although less than five thousand cases are reported annually, some students of the disease estimate that there are as many as 130,000 persons constantly clinically ill with the disease in the United States alone.

Human beings contract brucellosis, popularly known as "undulant fever," from animals. The microscopic organisms causing it are now well known. Named *Brucella* after Sir Robert Bruce, who first isolated the goat variety, the organisms are generally sticklike in shape, although they may be so short as to appear spherical. Generally they measure about 25,000 to the inch.

There are three predominant species of the Brucella—those with a special liking for goats, with which Jeanne was infected; those with a special liking for cattle, and those with a special liking for hogs. In animals, especially cattle, the disease they cause is known as contagious abortion. However, cattle can be infected with either swine or goat variety, and they in turn with either of the other two. All three varieties infect man, although the goat and swine varieties are most virulent.

There is no known cure for undulant fever. In fighting the disease, emphasis must be placed on prevention. Since a large proportion of the undulant fever among humans comes from drinking raw milk, the first line of attack should be obvious. Milk and milk products for human consumption should be made safe by pasteurization.

In his first spell of worry and rage over what had happened to Jeanne, Bob thought he should forbid his family to drink any kind of milk, but he soon realized how silly that would be. Milk with its value as a bone and muscle builder and source of vitamin A is a necessary item in the diet of growing children. Young Robbie, who drank milk which had been pasteurized under modern dairy methods, had not become ill: he throve on it. Moreover, the milk he drank was protected against all other milk-borne disease—typhoid, septic sore throat, tuberculosis.

"You see, Bob," Dr. Hunter said, "there's nothing wrong with goat's milk as such: on the contrary, it's an excellent food. If you or Martha had heated it to 160 degrees F. in a kettle and then chilled it quickly by setting it in cold water, stirring it until it was cool, Jeanne could have taken the milk in perfect safety. But there's no use crying over spilled microbes, and you'll know better next time.

Some of the persons afflicted with brucellosis acquire the infection through contact with sick animals or their infected carcasses. It is an occupational hazard for farmers, meat handlers, veterinarians, and laboratory workers. Since we cannot eliminate these occupations, the alternative is to try to eliminate the disease from animals.

To do this, there are two possible courses: killing the infected animals or making them immune to the disease. Since 1934, farmers and state and Federal departments in America have co-operated in a programme to eliminate diseased animals from herds through the slaughter of those giving positive reactions. What promises to be a more potent weapon, however, is the use of a moderately virulent strain of the bovine Brucella as a vaccine in immunizing calves.

Like so many scientific discoveries, this one was partly accidental. Dr. John M. Buck, late of the Bureau of Animal Industry, U. S. Department of Agriculture, left a culture tube of Brucella on his desk, where he forgot about it. It was left there for about a year. When Dr. Buck retested it, he found that it had lost much of its virulence.

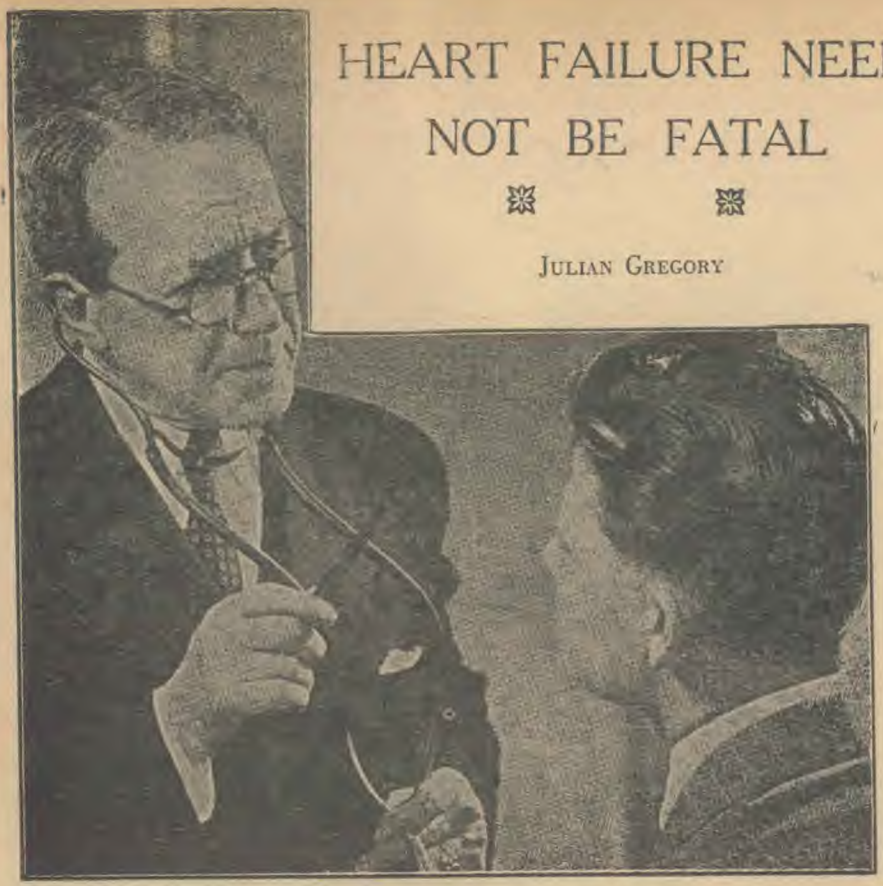
Dr. Buck was immediately excited by the possibilities of this discovery. If the strain making up this culture would stay as it was, neither gaining nor losing virulence, it might be injected into calves and, without causing a virulent infection, make them immune to brucellosis for life.

Apparently, that is what happened. Known as "Strain 19," Dr. Buck's bacteria seems not to have gained or lost in virulence in twenty years. Strain 19 is being used to vaccinate calves in the United States, England, and Canada. Early experiments held so much promise that at the present time 40,000 calves are being vaccinated each month.

We now have reason to hope that the conquest of brucellosis is not too far distant. Perhaps the time will come when, through the process of making milk safe by pasteurization and the campaign to eliminate the disease from animals, the tragedy of little Jeanne will occur much less frequently than it does now.

HEART FAILURE NEED NOT BE FATAL

JULIAN GREGORY



For better health guard the heart.

News Item:

Samuel G. Munson, 50, prominent industrialist of this city, died suddenly today while attending a board of directors meeting.

News Item:

Igor Seguela, noted young conductor, collapsed suddenly last night while leading the philharmonic in a rehearsal of a Brahms concerto. The 39-year-old musician was dead before he could be rushed to the hospital.

News Item:

Traffic on Main Street was held up briefly during the noon rush hour today, when a well-dressed, middle-aged man dropped dead while boarding a tram-car. The coroner estimated the man's age at about 50, and said no inquest would be held. The body remains unidentified.

Such items appear in the newspapers every day. They are constant reminders that coronary thrombosis is always at work among us. Among men between the ages of thirty-six and fifty-four, it is the most common cause of sudden death. But it also kills people in all age groups. Strangely, it seems to prey especially on people in the intellectual and prosperous classes, particularly affecting the so-called "high strung" individuals.

In everyday terms, these deaths occur when a blood clot blocks a blood vessel that nourishes the heart muscle. With the blood supply cut off, the heart muscle stops functioning.

Until now, there was little hope of recovery from this disease. Morphine was given to dull the pain, and drugs were used to expand the blood vessels. The patient was also given oxygen and kept in bed for weeks.

But little could be done to effect a cure. If the first attack wasn't fatal, others would follow. Only a few people were known to survive more than three attacks.

Yet the cause of the disease and the mechanism of the attack have been well known. The difficulty, however, is that warning it seldom given that such a blood clot is forming. This is why doctors call coronary thrombosis a "sneaking killer."

Today there is good news for prospective victims. Three Baltimore scientists have made a fresh approach to the disease. They have found, and tested, a drug which by direct injection reduces the tendency of the blood to clot. This drug is known as dicumarol, and comes from sweet clover. It was discovered by veterinarians who were seeking a treatment for blood disorders of cattle. The Baltimore doctors were the first to use it to combat coronary thrombosis. It appears that science may have found another "miracle" drug.

First, they tested it merely in the test tube, on samples of blood taken from the human body. They found that, in proper dosage, dicumarol would slow down the clotting time by 35 to 50 per cent.

With the test-tube work completed, the three scientists—H. Raymond Peters, M.D., Roy Guyther, M.D., and Charles E. Brambel, Ph.D.—were ready to begin work on actual hospital cases. Over a two-year period they handled 110 cases; a test group of sixty were given the usual treatment, and the remaining fifty were given dicumarol.

Of the group given the usual treatment (morphine, etc.) thirteen died—or 20 per cent. Of the group given dicumarol, only two died—or four per cent.

The drug, in other words, apparently reduced the death rate by 80 per cent.

As a matter of fact, the death rate was reduced more than that, since one of the two patients who died after receiving dicumarol really died of kidney complications, rather than from heart failure.

"With regard to so-called delayed toxic reactions," the doctors say, "we can report that none have been noted. We have carried several patients on this drug continuously for over a year without noting any ill effects. One patient has been given the drug regularly for two years with the idea of preventing a recurrence of the condition."

A typical case is that of a 56-year-old man who entered hospital four hours after an attack. At first, he was given only the usual treatment, but his condition grew worse rapidly. The doctors then gave him dicumarol. Within 48 hours, his condition began to improve, and since then he has been leading a normal life.

This research represents the first step toward conquering sudden death of middle age. It may not prevent occurrence of coronary thrombosis, but it offers a five-to-one chance of treating it successfully, once an attack has occurred.

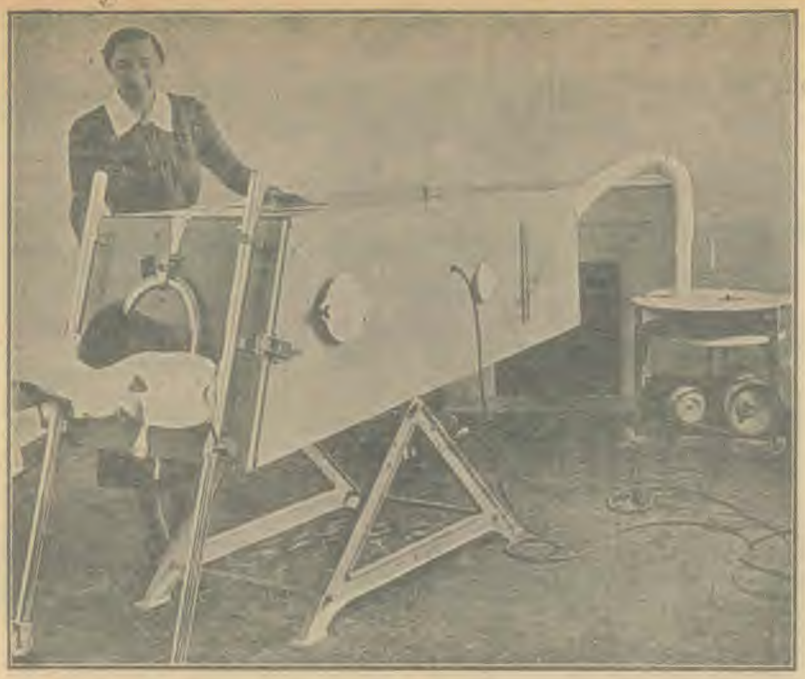
Equally important is the role that dicumarol is expected to play in the operating room. Normally, during any kind of an operation there is danger of a clot forming in the blood. In clinical tests in Sweden, out of 170 patients who underwent operations and were treated with dicumarol, only one developed a blood clot—a remarkably low percentage.

Dicumarol may, therefore, end one of the great dangers of the operating room—as well as bringing hope to victims of coronary thrombosis.—*Magazine Digest.*

THE IRON LUNG HAS PRODUCED A THREE-MONTH CURE FOR T. B.

Adapted from *Science News Letter*, Washington, D. C.

JANE STAFFORD



An iron lung that does your breathing for you is effecting complete cures by providing an unusual form of physical and mental rest.

THE iron lung, normally used for helping people breathe, is now making it possible for some people *not* to breathe—as a cure for tuberculosis.

This new type of mechanical lung has been developed by Dr. Alvan L. Barach, of Columbia University College of Physicians and Surgeons. The device allows the patient to desist from breathing for hours at a time, thus giving the human lungs complete rest. Results of clinical tests show that this complete rest helps make it possible for the lungs to heal and throw off the disease.

Of the twelve patients who have been given this treatment so far, six have made a complete recovery. All were suffering from tuberculosis of the lungs in the advanced stages. Three of the cures were effected in three months; two cases required six months; in the sixth case treatment lasted for a year.

Two typical cases are given here:

A 36-year-old man was admitted to the Presbyterian Hospital in New York City in May, 1938. For a year before this he had had clinical symptoms of pulmonary tuberculosis. An X-ray examination showed that the disease had infiltrated both lungs. Resting in bed at the hospital didn't better his condition.

After treatment in the Barach iron lung, he gained thirty-five pounds in four months. After convalescent care, an X-ray examination showed that the lesions in the lungs had cleared up completely. A saliva test for T. B. was negative.

This man has been back at work for six years. The only lay-off from work came four years ago when he began drinking heavily and eating little, because of personal unhappiness. He recovered after two months' rest in bed.

A 31-year-old man had had T. B. for nine months prior to admission into a municipal hospital. In the following two months, while in bed, he ran a fever of 100 degrees to 101 degrees F. On November 4, 1938, he was admitted to the Presbyterian Hospital and given a course of two-and-a-half months' treatment in the Barach lung. He gained 17 pounds, his temperature became normal, and most of the T. B. condition in his lungs disappeared. After two more courses, T. B. tests registered negative and his cough disappeared completely.

Toward the end of the treatment of this patient, Dr. Barach administered the drug promin. Promin taken by mouth had been shown to be effective in retarding the development of tuberculosis in guinea pigs, and was tried on a few cases at the hospital. In this case, the combination of mechanical lung and promin cleared up the disease. The patient has now been working for over four years.

At first, Dr. Barach placed the patients in the lung for only four or five hours a day, but this was not enough. Treatment now consists of eight to eleven hours daily in the lung, during which time the patient does not breathe at all. This is accomplished by a special arrangement which wafts air in and out of the sick lungs.

The device involves a collar around the neck, which divides the iron lung into two compartments: one for the head and one for the body. By a synchronization of cycles of pressure changes in the two compartments, pressure is equalized on both sides of the chest wall, as well as on the upper and lower surface of the diaphragm. This pressure-equalizing feature is the chief difference between the new apparatus and the iron lung that is used for polio victims.

That the patient literally stops breathing while in the lung is shown by X-ray pictures, which fail to detect any movement of the ribs or diaphragm. The patients lie relaxed without moving. Most patients are not even bored, although a few use the radio for entertainment.

Problem number one is that of teaching the patients not to breathe. They may learn this in a few hours, but some take two or three days. At first their sinuses and ears bother them, because of the changing pressure on the ear drum. Sponge-rubber covers over the ears or radio ear-phones lessen this feeling, and nasal spray helps relieve the sinus congestion.

In all cases, the patients get used to the changing pressure. Some even enjoy the treatment—and most lie completely relaxed for hours, without breathing, moving their hands, or changing position.

Dr. Barach calls attention to the effect the treatment has on the central nervous system. Not only is there complete relaxation, but the desire to smoke disappears, even in those used to smoking two packs of cigarettes daily.

The doctor concludes: "The mechanism of improvement does appear to be related to the cessation of lung movement, which not only diminishes the diffusion of toxins in the lungs, but provides in most cases an unusual form of mental and physical rest."—*Magazine Digest.*

The March of MEDICINE

Rice Diet Helps Patients With High Blood Pressure

MUCH attention is being attracted by the report of a diet that seems to help patients with high blood pressure and kidney disease. Dr. Walter Kempner of Duke University, U. S., developed the diet and reports it. It consists solely of rice, fruit juices, sugar, vitamins, and iron.

Dr. Kempner's theory is that one of the kidney's functions, that of de-aminating the amino acids of protein, is disturbed by lowered oxygen supply, and the result is high blood pressure. The rice diet was developed to reduce the amount of protein the kidneys have to handle and thus lower the amount of harmful, abnormal substances which he believes causes the high blood pressure.

Not all patients benefit from the diet, though no ill effects from it have been seen. Blood pressures were reduced in about 60 per cent of the patients, he said. The diet, like that for diabetics, must be prescribed individually for each patient so far as amounts of rice and the other ingredients are concerned.

One nutrition authority listening to the discussion on whether the patients would be getting dangerously little protein from the diet, pointed out that the protein in rice differs from that in other cereals.

Vegetables Now Not Merely Dehydrated But "Anhydrous"

VEGETABLES that are not merely dehydrated but "anhydrous" are the newest thing on the nutritional horizon. They are a development of Clarence Birdseye, pioneer in the quick-frozen foods industry, and are due to be offered on the public market in the near future.

Biggest advantage at the consumer's end is claimed to be the quickness and ease with which "anhydrous" vegetables can be reconstituted—that is, brought back to normal moisture content and made ready for cooking. As a matter of fact, it is really part of the cooking process itself. The dry vegetables are placed in a pot with enough salted water to cover them and brought to a boil as quickly as possible, then cooked over a lowered fire for a few minutes. That is all. Appearance and flavour are claimed to be indistinguishable from those of fresh vegetables.

They do, however, have to be prepared in cut-up form—riced, diced, sliced, or what you will. You cannot get a whole boiled anhydrous potato.

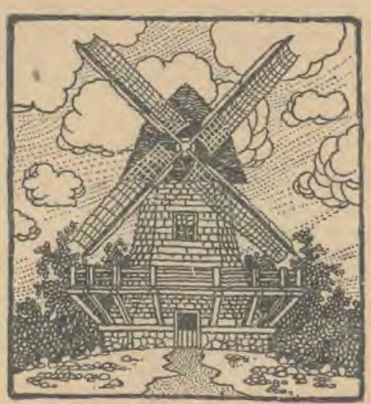
Secret of the new process, Dr. Birdseye stated, is the speed with which the water is extracted. In place of the eighteen hours or so required in the customary drying process, "anhydration" is accomplished in an average of ninety minutes. Saving in space and weight is described as enormous. Five truck-loads of vegetables that roll in at the receiving doors of the plant go out of the shipping door as one truck-load.

Coffee and Caffeine Beverages May Cause Stomach Ulcers

THE black coffee which is a favourite early morning eye-opener and the popular caffeine-containing carbonated beverages which many more take for between-meal pick-ups are bad medicine for the one out of ten in the population who have stomach ulcers or are ulcer susceptible. Excessive use of caffeine may help to cause ulcers in these susceptible persons.

Scientific evidence for this is presented by Dr. J. A. Roth, Dr. A. C. Ivy, and Dr. A. J. Atkinson of Northwestern University Medical School, U. S.

Caffeine, they found, stimulates production of strongly acid stomach juices rich in pepsin. In normal persons this stimulation of stomach acid output is abrupt but transient. In ulcer patients and those susceptible to stomach ulcer, the effect is prolonged. The difference is so marked that caffeine can be used to help diagnose stomach ulcer and to detect ulcer susceptibility. The test is made with a test meal of caffeine in water equivalent to two cups of coffee.



For a More Perfect Union

ONE U. S. couple in seven is childless, yet in most cases they want children. Why can't they have them? Last week a recently opened clinic in Cleveland, one of thirty-eight in the U. S., was trying to find the answer.

At the Maternal Health Association's new "Fertility Clinic"—a project of Cleveland's famed Brush Foundation which brings together previously scattered services—an internist, endocrinologist, urologist, gynecologist, nutritionist and psychiatrist have joined in a many-sided attack on the problem. To the young married couples who come to the clinic, they give thorough physical and mental examinations, prescribe special diets and hygiene rules. Sometimes they use surgery and drugs. Hormones may help, but endocrinologists have found no support for the idea that the "male hormone" (testosterone) increases fertility.

Among the causes of male "sterility" (i.e. subnormal sperm production): mumps (after puberty), gonorrhea, malaria, hot baths, exposure to X rays and other atomic radiation. The chief cause of female sterility is blocked tubes. But contrary to popular notion, absolute sterility is rare. Failure to conceive is often due to fatigue, overweight, nervous strain, emotional tension between husband and wife, or simply too infrequent sexual relations.

The Cleveland findings so far confirm the impression that infertility is more common among well-educated and high-income groups. Doctors admit that this phenomenon baffles them. Their guess: lack of outdoor exercise and greater emotional strain may have something to do with it.

Modern medical science has found no easy cure for failure to conceive. But on the basis of their experience, Cleveland's specialists expect that within a year one-third of the wives now attending the Fertility Clinic will be pregnant.—*Time.*

RECIPES

APPLES

APPLE SNOW PUDDING

Snow: 2 egg whites; 1½ cups apple sauce (put through sieve).

Beat egg whites until stiff. Add apple sauce gradually and beat until fluffy.

Custard: 2 egg yolks; 1½ cups milk; 1 cup sugar; 2 tablespoons corn flour; 1 teaspoon vanilla.

Cook together in double boiler. Serve cold, placing snow on top of the custard.

APPLE CHARLOTTE

Grease heavily a pie-dish and coat with bread-crumbs. Make alternate layers of thick slices peeled and cored cooking apples and a mixture of bread-crumbs, butter and grated lemon rind. Scatter brown sugar over the apple layers. Cover the dish with ungreased paper and bake about 1 hour and 15 minutes in a moderate oven.

CHEESE APPLE DUMPLINGS

1½ cups flour; 1 teaspoon salt; ⅓ cup shortening; ½ cup grated cream cheese; cold water; apples.

Sift flour and salt together. Work in shortening and grated cheese. Add enough cold water to make a firm dough. Roll out and cut in squares large enough to cover a medium sized peeled and cored apple. Fill the cavity of the apple with sugar and cinnamon. Draw the corners of the crust to the top and pinch together. Bake in a moderate oven until apples are tender and crust browned. Serve garnished with additional cheese and the following sauce:

1 cup granulated sugar; 1 teaspoon cinnamon; 2 tablespoons butter; ¾ cup water.

Mix all together and boil 5 minutes. When cool serve around dumplings.

OXFORD APPLES

4 large tart apples; 1 tablespoon butter; ½ cup sugar; ½ cup cream; ½ cup fine bread-crumbs; 4 egg yolks; 4 egg whites; 2 tablespoons powdered sugar.

Make a very dry sauce of the apples. Mash and add butter, sugar, bread-crumbs, egg yolks, 2 beaten whites and cream. Pour into a baking dish and bake until thoroughly heated through. Cover with meringue made from 2 egg whites and 2 tablespoons powdered sugar.

APPLE CRISP

4 cups sliced apples; 1 teaspoon cinnamon; 4 tablespoons butter; ½ cup water; 1 cup sugar; ¾ cup flour.

Cut apples in ¼-inch slices. Butter baking dish and put in sliced apples. Over this pour the water and cinnamon. Work sugar, flour and butter together until crumbly. Spread over the apple mixture and bake uncovered. Serve warm with whipped cream or lemon sauce.

BAKED APPLE FRITTERS

2 cups chopped apples; ⅓ cup sifted flour; ½ cup sugar; ½ cup butter.

Mix and pour into buttered pan to depth of ½ inch. Bake in quick oven until brown. Cut in squares and serve with golden syrup.

BROWN BETTY

1 quart chopped apples; 1 quart raisins; ½ cup sugar; 1½ cups water; 1 tablespoon lemon juice; ¼ teaspoon salt; 1 cup zwieback crumbs.

Spread ½ the raisins in bottom of dish, then ½ the chopped apples. Add ½ the sugar, and ½ the crumbs. Add the rest of the raisins, then apples, then sugar and crumbs. Add the salt and lemon juice to water and pour over top. Cover and bake for 1 hour in pan of water. Remove cover and water, then brown. Serve with sauce.

APPLE COCONUT PUDDING

Arrange in a buttered baking dish alternate layers of sliced apple, shredded coconut and raisins. Sprinkle with cinnamon, brown sugar and dots of butter. Bake in a moderate oven until apples are tender. To vary this, bread or cracker crumbs may be used instead of coconut.

FROZEN APPLE SAUCE WHIP

1 cup apple sauce; juice of 1 lemon; juice of 1 orange; ½ cup chopped nuts; 1¾ cups whipping cream; pinch of salt.

Add nuts and salt to apple sauce and chill thoroughly. Whip chilled cream until very stiff and add lemon and orange juice. Combine with apple sauce mixture. Place in moulds of assorted shapes and freeze in refrigerator tray.

CHEESE APPLE PIE

¼ cup flour; ¾ cup sugar; ½ teaspoon cinnamon; 4 cups sliced apples; 3 tablespoons lemon juice; 2 tablespoons butter; ½ cup grated cheese; plain pastry.

Line a deep 9-inch pan with pastry and roll out dough for top crust. Sift flour, measure and sift again with sugar and cinnamon. Mix with fruit and fill pastry shell. Add lemon juice, and dot with butter, and sprinkle, with grated cheese. Moisten outer edge of crust with water, cover with top crust and seal edges together. Cut top crust to allow steam to escape. Bake in a hot oven 45 minutes or until apples are done.

APPLE DELIGHT PIE

2 tablespoons flour; 2 cups chopped apples; ¾ cup sugar; 1 beaten egg; ½ teaspoon vanilla; ½ teaspoon salt; ½ cup thick sweet cream; plain pastry.

Mix ingredients and beat until smooth. Add apples. Pour into unbaked pastry shell. Bake 15 minutes in a hot oven. Reduce heat and bake until centre is firm. Remove pie and sprinkle with a mixture of ⅓ cup sugar; 1 teaspoon cinnamon; ⅓ cup flour; and ¼ cup butter. Bake again for 10 minutes.

PLAIN PASTRY

2 cups flour; ½ cup solid shortening; 1 teaspoon salt; about 2 tablespoons water.

Sift salt with flour. Work in shortening lightly. Moisten to a dough with cold water. Roll out on a floured board, 1 crust at a time. Makes 2 crusts.

KEEPING UP WITH THE WORLD

¶ Lack of medicine as well as lack of food has long been responsible for the unparalleled death-rate of India, where, even today, there is only one pharmacist for every 5,000,000 persons, compared with 2,965 for every 5,000,000 persons in the United States.

¶ China will soon begin work on the reversion of the Yellow River to its original course from which it was diverted in June, 1938, causing it to flood 500 square miles to stop the advance of a large part of the Japanese Army. Before the tremendous job of getting this unruly river back into the 800 miles of its former bed can be started, more than 250,000 persons who have settled in it will have to be moved.

¶ Not only is illiteracy unknown in Iceland but its people as a whole are more cultured and highly educated than those of any other country, about 75 per cent of them speaking two languages and 20 per cent speaking three or more. While they comprise only 25,000 families, they have nearly 100 newspapers and periodicals, 70 book-stores, 20 public libraries, a university and a symphony orchestra.

¶ One of the most widespread fallacies today is the belief that virtually all cases of obesity are caused by glandular trouble, whereas, in reality, they result from overeating, except in rare cases. In persons whose excessive weight has been reduced under glandular treatment and a restricted diet, it was chiefly the diet and not the treatment itself that accomplished the result.

¶ The colour perception of the human eye is influenced by the colour of its pigment. When a brown-eyed man attempts to match a piece of fabric for his blue-eyed wife, his choice may look like a perfect match to him, but appear quite different to her.

¶ While the facts released on the first atomic bomb dropped on Japan were very meagre, the statement that it "had more power than 20,000 tons of TNT" was revealing enough for an estimate to be made of its plutonium content. This is believed to have been a little over two pounds, of which the amount that was actually converted into energy weighed only one gram.

¶ Hitler's private yacht, the Grille, is now docked in England and offered for sale by the British admiralty. Completed in 1935, this luxurious vessel is about 400 feet long, weight 3,600 tons and cost approximately Rs. 24,000,000, although reputedly designed as a pleasure cruiser, her original fittings included equipment for converting her into a fast mine layer.

¶ The greatest temperature fluctuations in range and rapidity, ever recorded by an American weather Bureau, occurred in and around Rapid City, South Dakota in the United States on January 22, 1943. Between 10:29 A.M. and 5:26 P.M., the temperature rose and fell suddenly three times. The increases were 32 degrees in four minutes, 36 degrees in five minutes and 35 degrees in eleven minutes; while the decreases were 22 degrees in three minutes, 47 degrees in five minutes and 41 degrees in four minutes.

¶ Probably the most savage job done by the German Army was the destruction of Finmark, Norway's northern province, which was carried out by 600,000 retreating Nazis in the fall of 1944. They left nothing alive or standing in this 18,600-square-mile area, having driven out its entire population, slaughtered its 800,000 cows, horses and reindeer, cut down its dozen large forests and set fire to every building in its twenty-five towns. Still unsatisfied, they went through the burned homes, smashing dishes and shooting holes in pots and pans.

CAPSULE-SIZE DOSES

The Hypochondriac

HELEN CASTLE

Why should my stomach hurt me so?
No matter what, the pains just grow;
Perhaps my health is not quite right—
I'm sure I must see Dr. Snow.
Yet, last time when I told him that,
He seemed to think I came to chat.
He talked about our homefront plight,
And how some women wasted fat.
Now what he meant by that remark
Completely left me in the dark;
I'll drive downtown and eat a bite,
And then I'll visit Dr. Clark.

WHAT makes a man an alcoholic? Alcoholism, answer psychiatrists, is a symptom of mental disease, and thus chronic drinking in many cases may be as unavoidable and blameless as catching a cold.

But last week a Pennsylvania, U. S. court in a case involving alcoholism, contradicted the psychiatrists' view, argued that a man can avoid becoming an alcoholic if he wants to.

Allen G. Lynch, 43, a Pittsburgh lawyer, drank himself out of his practice. After several hospital attempts at a cure failed, he wound up in helpless seclusion on a friend's farm. His estranged wife sued the Mutual Life Insurance Co. for benefits under his disability policies. Said Judge Claude T. Reno, of the state superior court, in rejecting the claim:

"Man drinks because he desires, intends, wills to experience the effects of drink.... Conceding that men do not deliberately intend to become chronic alcoholics, what shall be said of a man who, knowing the ultimate results, seeks the accumulative effects which liquor produces? If a sane man chooses to loose destructive forces upon himself, the law will not relieve him from his folly."

Sighed Dr. Robert Felix, chief of the U. S. Public Health Service's mental hygiene division: "A most sad and unfortunate decision. If this philosophy were adopted in cases of chronic alcoholism, it would set psychiatry as well as medicine back a generation."

ALCOHOLISM is recognized today as a system of mental disorders, declares Dr. Leo Gelfand. It is a common thing for a person suffering from worry or anxiety to resort to drink to forget his troubles. While commenting on this subject, we should mention the article by Robert V. Seliger, M.D., in the September *Woman's Home Companion*. Dr. Seliger declares that "the ratio of women alcoholics to men has risen steadily during the last twenty years and is continuing to rise." As one of the chief reasons for this tragic situation the doctor points out that woman's security has been undermined by modern social trends, and the attempt to escape real life situations causes women who have *started* drinking to go to excess. The basic solution would be to find, in religious faith, peace of mind and strength to face the crisis. Without spiritual stamina, the bewildered of this generation seek surcease in liquor and frivolity.

"*IF I were a medical man I would prescribe a holiday for any patient who considers his work so important that no other man could do it well.*"—George Santayana.

RATS are the scourge of the earth. Never have they been more widespread, more numerous, or more destructive. It is said that a good sized city could easily maintain a municipal university on what rats devour, spoil, or set fire to. The multiplied millions they destroy annually in property damage are paralleled by their menace to health. Their fleas carry the most terrible disease, bubonic plague.

NOW it is announced that the use of mineral oil in salad-dressings may be a dangerous thing. Mineral oil can interfere with the body's absorption of carotene, a rich source of vitamins. When mineral oil is used in cooking and in salad-dressings, one usually consumes a good deal of it, and it may seriously interfere with proper nutritional diet.

"*ONE man manufactured something the people needed. He made a living. Another manufactured something they wanted. He made a fortune.*"—The Welchman.

THE DOCTOR SAYS

This question and answer service, free only to subscribers, is intended for general information. No attempt will be made to treat disease or to take the place of a regular physician. In special cases, where a personal reply is desired or necessary, it will be given if a stamped addressed envelope accompanies the question. We reserve the right to publish the answers to any questions sent in, if we deem them beneficial to our readers, though no names will be published. Address the Associate Editor (Doctor Says) "Health," Post Box 35, Poona, and make questions short and to the point.

LOSS OF MEMORY: Ques.—"I am seventy years old and am rapidly losing my memory. About ten years ago I fractured my skull. Is this accident responsible for the loss of memory?"

Ans.—You mention that you received a fracture of the skull ten years ago. It would of course be presumptuous on my part to make a diagnosis of your condition with so little information about your case. However, if the fracture you received at that time was serious or very extensive, it would be possible that there is some association between the fracture and your present loss of memory. There are, however, people who in getting up toward the age of seventy years, note a progressive loss of memory due to advancing age. You must bear in mind the possibility that this is due to age rather than to the accident and if it is, the process is one in which the normally live, active cells of the brain are becoming hardened and losing their normal function. It is a slow process and ordinarily you should have no fear that you will be seriously crippled during your normal life-time. The fibrosis following an accident such as you mention with damage to the brain may resemble the changes in the tissues resulting from old age.

?

INCREASE IN WEIGHT: Ques.—"My height is 5 ft. 3 ins., but I only weigh 90 lbs. Kindly let me know what to do to increase my weight."

Ans.—The question of weight in relationship to height is often one which has little relationship to one's condition of health. Some have a congenital tendency to heavy, stocky build, others to a slim, wiry build, whereas both types may enjoy the best of health. There should be no question of an attempt to increase your weight. The question should be, Are you in good health at the present time? If so, forget about your weight, bearing in mind that it is the weight that you are intended to carry. If you are suffering from some ill-health, then deal with the question of the ill-health as such, but don't worry about the question of your weight if you are not overweight. If you are in good health then you probably have the weight which you would intend to carry.

?

AMEBIC DYSENTERY: Ques.—"I have been suffering from amebic dysentery for some time. Please throw some light on this disease for there are many who are suffering from it."

Ans.—Your question about amebic dysentery is a very timely and appropriate one. Amebic dysentery is one of the most prevalent diseases found in India. In fact many carry this disease and suffer much from the debility which it causes without knowing the reason for their trouble. It must be stated first of all that there has not been any satisfactory treatment developed for ameba. Some patients receive much benefit from the use of carbarsone or entero-vioform, getting sufficient relief so that they may regard themselves as practically clear of the trouble. The tendency, however, is for the condition to reappear in a matter of a few months, indicating that probably it was not completely eradicated at the time. In many cases, however, a proper course of carbarsone and entero-vioform will completely clear up this condition. The use of the carbarsone as generally directed, is, in the case of the average sized person, to take one ¼ gram tablet after each meal three times daily for a period of ten days. Treatment should be repeated again for ten days. This must be carried out in this manner taking four such courses of treatment, allowing an interval of four or five days between courses. The usually prescribed dosage of this medication is one tablet twice daily rather than three daily. Much better success is being observed in using it this way rather than with only the two tablets daily. It must be borne in mind that such medication should be taken only under the instruction of and under the observation of a properly trained physician. Some cases of ameba fail to respond to this care. In such instances it is advisable for the patient to go into the hospital and have a course of emetine injections, a treatment which can be carried out only under the direction of an experienced physician. Emetine is a deadly poison acting upon certain vital tissues of the body, particularly the heart, and it is necessary that the patient should be under close observation while receiving this medication. There is little that can be done by way of diet to help facilitate the elimination of ameba from the system. With ameba as prevalent as it is in India it is almost impossible to suggest precautions to insure avoidance of the infection.

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NEURO PHOSPHATES: Ques.—"I am sixty years old and in perfect health except for nervousness. I have had this ailment for the past twelve years, and under a doctor's directions I have taken five bottles of neuro phosphates, but it has done me no good. Please suggest some suitable treatment."

Ans.—The neuro phosphates which you have been taking are usually prescribed to people suffering from nervousness on the understanding that these phosphates are in some way a nerve food. This is a mistaken notion. If there is a deficiency of some kind in the body which this preparation makes up to the patient there may be a proportionate improvement in health. Ordinarily if there is an organic trouble in the nervous system these phosphates are of little value. It is possible that you are suffering from some systematic disease which might be identified by a careful clinical examination. It would be advisable for you to have such an examination and receive treatment according to the indications. Deficiency of certain substances such as calcium, vitamin B and other substances may be inclined to cause a neurological disturbance such as you mention. If you fail to consult a physician in this matter for diagnosis you would probably note some improvement by taking fairly heavy doses of vitamin B. This could be taken in the form of brewers' yeast tablets, four tablets three times daily, or a vitamin B tablet (10 mgm.) three times daily. Elimination of coffee, tea, tobacco and animal foods will

have a definitely beneficial effect in such cases. Your general daily programme should be one avoiding undue excitement, tension or anxiety.

?

REACTIONS TO FLYING: Ques.—"I am a pilot by profession. During the flight there is a feeling of slight uneasiness and restlessness caused by vibrations and the noise of the engine. The appetite is sharpened and there is a tendency to overeat, as a result we drink tea and coffee and things of a similar nature, which I think are harmful. Could you suggest a suitable diet, which will satisfy the appetite and help the nerves?"

Ans.—Your question presents a very interesting medical problem. Being a pilot myself I can understand something of the reactions which you mention to the effects of flying. The increased appetite, the slightly increased nervous tension and resulting strain are factors which would necessarily in the long run have some unfavourable effect upon the health. In order to maintain a high degree of fitness in your profession it will be necessary for you to place yourself upon a fairly rigid health programme and admit of no variation from certain essentials in your health plan. In the first place the question of diet should be given very careful attention. There is no alternative to you but to avoid the excessive use of tea and coffee. These do tend to add to the nervous tension involved and while giving you a temporary lift, they actually let you down in the long run. As to diet, you will here also have to limit yourself to certain fairly well regulated meals or snacks, keeping your total calorie intake low enough so as to avoid the adding of weight and the consequent, accompanying sluggish feeling. As you have alternate days free, it should be possible for you to get in regular and wholesome exercise, preferably something which will give you an all-round exercise such as tennis or swimming. Hiking, if you can go several miles at a brisk gait, as a regular habit, is perhaps as good as anything you can do.

This regularity of physical activity would probably do as much for you as any one kind of exercise. Also this regularity of exercise will improve your chances for good sleep and consequently tend to better relaxation. Avoidance of meat in your diet and eating a generally light diet with plenty of fruit will be very beneficial.

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PSYCHIATRISTS AND NERVE SPECIALISTS: Ques.—"Kindly give me the name and address of some sanitarium where a patient can be under the care of a good psychiatrist and nerve specialist."

Ans.—The most skilled psychiatrists in the country are those associated with the leading medical colleges. Cases requiring psychiatric attention should be taken to the best available medical college clinic for diagnosis and advice as to treatment. Government institutions for mental cases should have first-class psychiatrists in connection with them. Unfortunately this is not always true and it would therefore be perhaps misleading to recommend consultation with the physician in charge of a mental institution merely on the supposition that he was a specialist in his line.

?

SCANTY BEARD; OVER-SLEEPING: Ques.—"I have grown a scant beard, but being a Sikh would like a beautiful all-round beard. What will remedy this? I sleep very soundly, and if not disturbed can sleep for twelve hours at a stretch, though upon awakening I do not feel refreshed but feel dizzy. What is the cause and remedy for this trouble?"

Ans.—Your problem of scant beard and also your unduly sound sleeping are both of them possible results of some underlying systemic condition. There is no direct medication to help the growth of your beard. The tendency to excessive sleeping may be the result of a glandular deficiency. You should ask your doctor to arrange a basal metabolism test and on the basis of the results he could prescribe suitable medication. In case of hypothyroidism there may be a tendency such as you mention and the taking of a bit of thyroid often greatly improves the health.

?

APPENDICITIS: Ques.—"I was operated on for appendicitis in May, and though I have resumed my normal duties, I do not go in for cycle-riding, playing hockey or cricket. For how long should I take these precautions?"

Ans.—You state that it is several months since you were operated for appendicitis and that you are feeling very fit. Your precautions in regard to heavy exercise have been quite unnecessary. The most recent plan of care for such surgical cases is to have them up and walking a day or two following the surgery and back to full normal activity in a month or six weeks following the operation. If your surgery is properly done there should be absolutely no danger to the site of the wound.

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EPILEPSY: Ques.—"Is epilepsy contagious?"

Ans.—Epilepsy is not contagious. It is supposedly the result of some damage to the brain in earlier life and has no relationship to any possible infectious diseases which might be transmitted to an associate.

?

SOFT VOICE: Ques.—"My voice has been extremely soft since childhood and though I have taken various medicines prescribed by doctors, they have had little or no result. Since the removal of my tonsils my general health has improved, though my voice still remains the same. Please suggest a good treatment."

Ans.—This question of tone of the voice is one for which there probably is not much to be done at the present time. It is barely possible that injections of antuitrin and testastarone propianate might serve to mature your voice. These would of course necessarily be given by experienced physicians and would need to be continued over a period of time before you would be able to determine the possibility of some benefit.

?

ANGINA: Ques.—"Is angina a disease by itself or is it connected with heart complaints of any type? Is it curable and what are the best remedies for prevention and cure?"

Ans.—Angina pectoralis is a symptom associated with a heart disease in which there is a narrowing of the blood vessels resulting in less blood going to the muscles in the walls of the heart than is necessary. This narrowing of the blood vessels may be due to arteriosclerosis or may be due to a certain type of nervous spasm in which case it is intermittent, the discomfort coming and going from time to time. If the condition is arteriosclerosis, it is likely to be progressive and may have some dangerous significance. In any case

the treatment which is most effective is a programme in which diet is strictly limited in quantity but in which the diet includes much fresh foods and adequate supply of the necessary vitamins and minerals. Your diet should be restricted so that you are definitely hungry after each meal. If you are even slightly overweight you should reduce your weight until you are somewhat underweight. You should eliminate all animal foods. You should take a fairly heavy dosage of vitamin B either in the complex or in the form of brewers' yeast tablets. You should get very good rest both at night and every afternoon. Avoid any strenuous or unpleasant duties as far as possible.

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ERADICATION OF BEDBUGS: Ques. —"What liquid or powder preparation is available in the market to get rid of bedbugs? D.D.T. is not available locally."

Ans.—We have no information of safe and satisfactory preparation for the eradication of bedbugs. D.D.T. is becoming available more and more, and will shortly be freely available in the open market according to reports coming to us at the present time.

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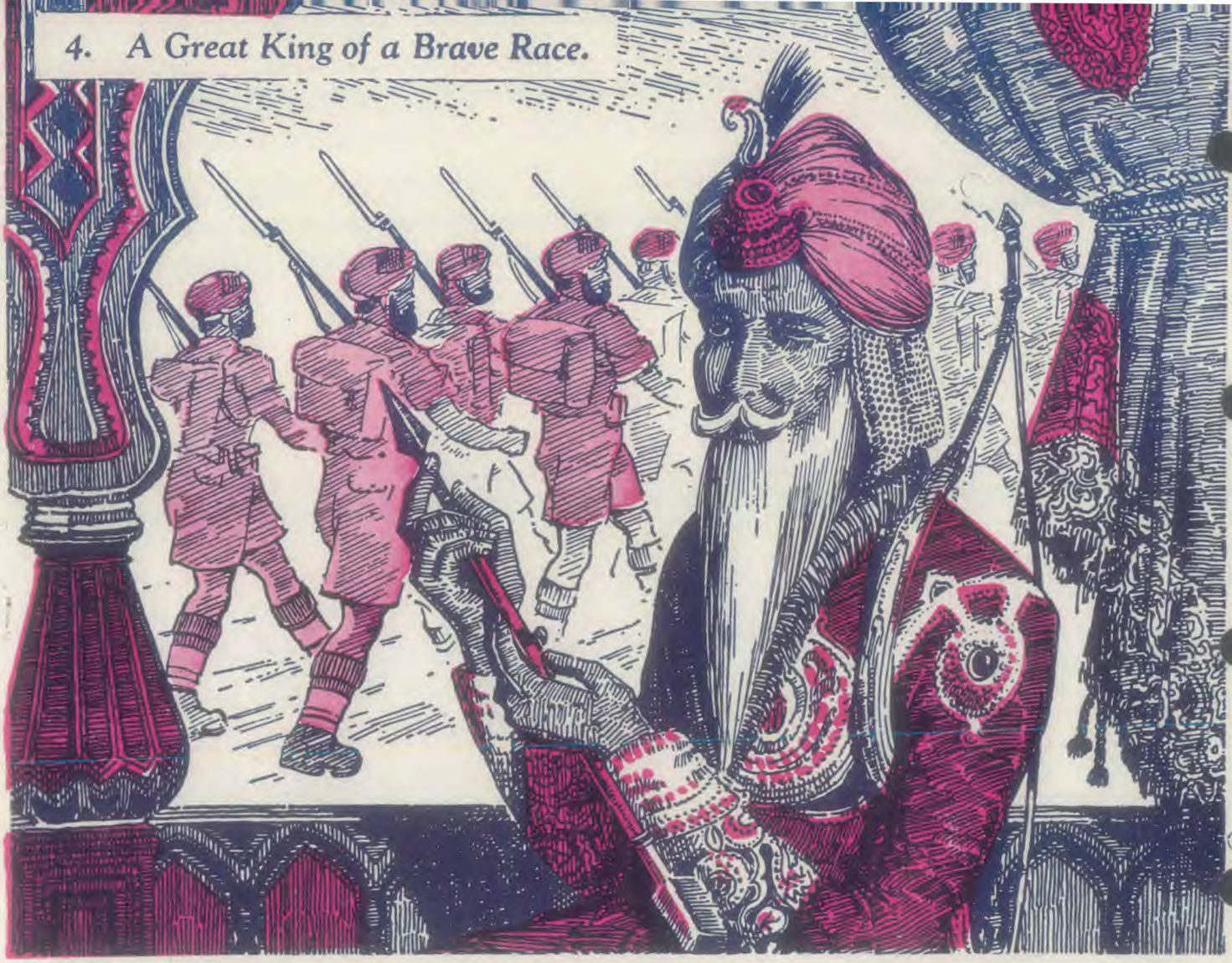
CONSTIPATION: Ques.—"For the last three years I have been suffering from constipation, what is the most effective cure?"

Ans.—Generally speaking there are two outstanding factors involved in the clearing up of persistent or chronic constipation. One has to do with the diet, the other with bodily activity. The person who is seriously constipated is usually not very active physically, and is generally not well advised on the question of diet. There are certain foods more inclined to tend to constipation than others. There are some foods which have a definite beneficial effect in relieving constipation. Those which are beneficial in this regard are most fruits, either fresh, dried or cooked. Figs, dates, and prunes, taken in liberal amounts, are definitely beneficial in this way. A liberal serving of papaya with each meal is one of the most beneficial foods in helping to clear up this condition. As to the question of bodily activity, regular physical exercise is almost essential. If some form of athletic exercise such as tennis or badminton is not available, then a brisk hour's walk daily, or preferably morning and evening, will have a very beneficial effect. It may be thought troublesome to take time for this, but it is not so troublesome as the ill-health which may well result from neglect of this condition.

4. *A Great King of a Brave Race.*



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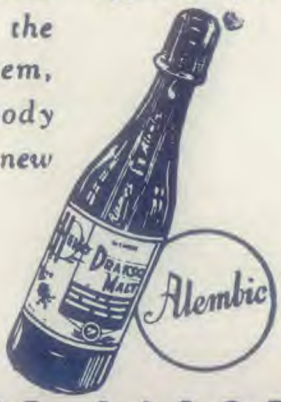

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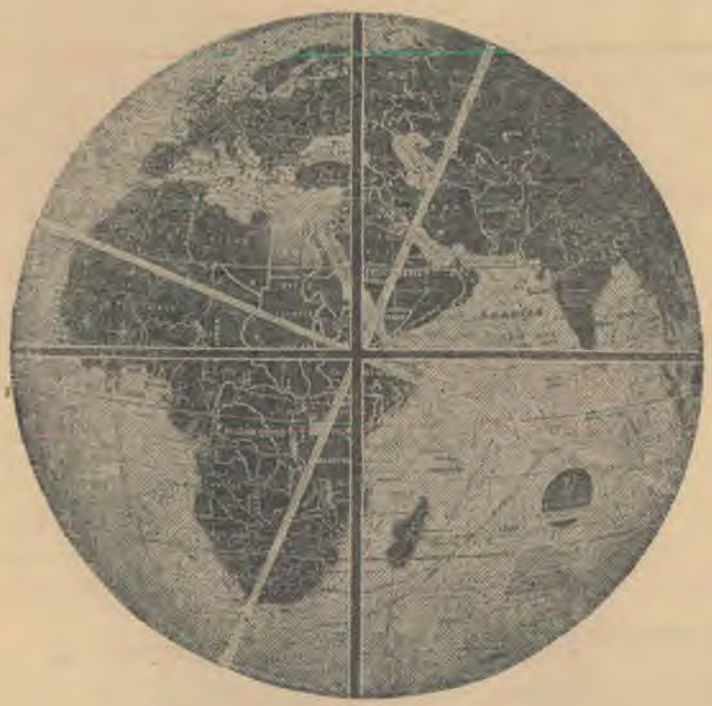
ORIENTAL WATCHMAN
FEBRUARY SUPPLEMENT 1947

WORLD GOVERNMENT

How and When It Will Come

WILLIAM G. WIRTH



WITH increasing earnestness our prominent writers are emphasizing the vital need of world government if mankind is to avoid destruction. This is the purport of Emery Reves' *The Anatomy of Peace*, which has been so widely read in recent months and so signally recommended by Albert Einstein, Justice Owen J. Roberts, and other eminent leaders.

More and more it is being recognized that one of the chief causes of our world woes is the separate sovereignties of the different nations. A world becoming progressively welded together through an advancing science with its rocket aeroplanes and instantaneous communications cannot afford the luxury and continuous threat of disunited government. There must be one organization, one leadership, to keep all men and nations in line. Here we have in a nutshell the reason for the United Nations Organization. We deceive ourselves if we regard this international institution as merely the expression of an altruistic idealism. It is sheer realism, an inescapable necessity.

So compact, so intricate, so complex, so crowded together, are the problems of the world that no nation can be permitted to carry out its own sovereign will, regardless of the interests and concerns of the other nations of the earth. So small has our world become, so closely intertwined its business and affairs, that what Russia does in Manchuria and Iran, vitally affects the citizens of Iowa or Nebraska. Science and mechanics, industrialization and commerce, have broken down national lines. It is world science now, world industrialization, world commerce, world mechanics. No more can they be looked upon as the selfish domain of some particular national government.

Our emphasis on political democracy and racial equality drives us on to the goal of world government. If all men everywhere are free and independent, there cannot be localized political controls that repress governmental minorities. The only guarantee that oppressed men can possibly have to assure them their coveted independence is their right and privilege to appeal to some over-all world government that, unbiased and free from local patriotisms and selfish interests, will grant them a hearing and the security of self-government. That is why the small weak nations are so enthusiastic and insistent upon the real and efficient operation of the United Nations Organization.

If all men of whatever race and colour are to be treated as men on an equal governmental and economic basis, this can only be accomplished in one way, through one human universal government that will not recognize any superior races or be stigmatized by the racial aloofness of a nation that feels that because of its blood it is better than the people of another area or country. One of the patent difficulties that has come out of World War II is that while it was fought to preserve the principle of racial equality, there seems to be little desire on the part of some powerful nations to see that such equality is really observed.

It is this essential need of world government that makes the Scriptural doctrine of the second coming of Christ a most practical, realistic consideration. It must not be left on the shelf as a theological concept. We must view it as the world's only way out. In the wisdom of God it provides us with one universal sovereignty in the place of the separate national sovereignties that make our earth the hotbed of quarrels and international dissensions so easily provocative of war.

In his great Messianic prophecy Isaiah clearly saw this as the only world solution: "For unto us a Child

is born, unto us a Son is given: and the *government* [mark it!] shall be upon His shoulder: and His name shall be called Wonderful, Counsellor, The mighty God, The everlasting Father, The Prince of Peace." Isaiah 9:6.

The revelator John anticipated our present-day Emery Reves and other profound political thinkers in their insistence, rightly, on some successful, efficient world government and world sovereignty, when, catching an inspired apocalyptic view of our Lord's second advent, he beheld Him carrying the name, "King of kings, and Lord of lords." Revelation 19:16.

In realistic fashion we must recognize that the second coming of Christ is essential because He alone has the power inherent in His very character as the incarnate Son of God to handle the stupendous and overwhelming problems we face today. Our material advance has thrust upon our world difficulties and perplexities beyond our human power to control or solve. We must not lose sight of the profound truth that while our science and mechanics have pushed us on and on to greater and more mighty operations, we have remained men, the same kind of men in personality force as lived in the Middle Ages. Our human powers do not fit into the physical and material powers we have loosed upon the earth. The atomic bomb preaches its own sermon in this respect.

It is here again that Isaiah gives us the answer when he tells us that this "Child," this "Son," who shall carry the world's "government . . . upon His shoulder" will be the mighty (mark it!) God. One that shall be able to rule competently and masterfully. Further to emphasize this point of our Lord's power to handle the world when He comes the second time, he draws this picture of our Lord's second advent and His challenge to a troubled world: "Who is this that cometh from Edom, with dyed garments from Bozrah? this that is glorious in His apparel, *travelling in the greatness of His strength?* I that speak in righteousness, *mighty to save.*" Isaiah 63:1.

There is more, however, to this matter of the necessity of world government than simply the factor of sovereign, efficient leadership. We could possess this, and still our world would be a sphere of war and woe. That which determines the success of any government is the character, the moral and spiritual calibre of the people who make up that government. If the citizenry is bad, it matters not how good the government may be; it will fail. If there is hate, jealousy, dissipation, lack of moral fibre in the heart and life of the individual, it is absurd to think that the government of such people can escape hate, jealousy, dissipation, and lack of moral fibre. How many times we had it driven into our minds in our school days that the reason for the might of the Roman Republic was to be found in the upright, honest character of the Roman family, of the integrity and stalwartness of the Roman father and his sons. When France so easily and surprisingly fell before the Nazi invasion, were we not told by the French leaders themselves that the reason for it lay in the decline of the individual Frenchman?

No; if our Lord came to rule this world as it is now, made up of men and women with the sinful propensities of character that we all possess, His reign would be a failure. But here again, in the wisdom of God, this was foreseen. Not only will He furnish this earth with a Ruler who will be sovereign and efficient, not only with a Prince of Peace who will be godlike in His own character and operation, but the citizens of that government will be those who are redeemed from among men through their faith in the Lord Jesus Christ as their only Saviour.

Isaiah gloriously declares: "Of the increase of His government and peace there shall be no end, upon the throne of David, and upon His kingdom, to order it, and to establish it with judgment and with justice from henceforth even forever." Isaiah 9:7.

"And there shall come forth a Rod out of the stem of Jesse, and a Branch shall grow out of his roots: and the Spirit of the Lord shall rest upon Him, the spirit of wisdom and understanding, the spirit of counsel and might, the spirit of knowledge and of the fear of the Lord; and shall make Him of quick understanding in the fear of the Lord: and He shall not judge after the sight of His eyes, neither reprove after the hearing of His ears: but with righteousness shall He judge the poor, and reprove with equity for the meek of the earth: and He shall smite the earth with the rod of His mouth, and with the breath of His lips shall He slay the wicked. And righteousness shall be the girdle of His loins, and faithfulness the girdle of His reins.

"The wolf also shall dwell with the lamb, and the leopard shall lie down with the kid; and the calf and the young lion and the fatling together; and a little child shall lead them. . . . They shall not hurt nor destroy in all My holy mountain: for the earth shall be full of the knowledge of the Lord, as the waters cover the sea." Isaiah 11:1-9.

The Soft Answer

That Turns Away Wrath

DEAN A. LOWER

"NEVER lose your temper with anyone." 1 Thessalonians 5:14, Moffatt. It is not an unusual thing to hear someone, in rather a boastful manner, tell how he gave an individual a tongue-lashing in return for an unkind deed or unpleasant experience. "I certainly gave him a piece of my mind," he says.

Such an experience is surely nothing to boast about. Anyone can speak sharp, sarcastic words. When one becomes angry, it is not difficult to be harsh and say cutting things. But it takes character, grace, and mercy to bear and forbear. One must be long-suffering to suppress anger and not lose his temper when others treat him unkindly. When individuals do us injury, it is the natural tendency to avenge ourselves; but this is not pleasing to God. Whatever men do to us, we must do good to others and think the best we can of everyone. This is the way Christ has treated us, and Christians will follow His example.

The Good Book says: "A soft answer turneth away wrath: but grievous words stir up anger." Proverbs 15:1. Nothing stirs up anger and sows discord like "grievous words," such as calling others cruel names and belittling them in the presence of friends and acquaintances. No Christian will do it. Those who do are only placing themselves on a lower level than are those they are upbraiding. Certainly there is nothing to glory about when we speak impatient or unkind words to anyone. "Let him that glorieth glory in this, that he understandeth and knoweth Me, that I am the Lord which exercise loving-kindness, judgment, and righteousness, in the earth: for in these things I delight, saith the Lord." Jeremiah 9:24.

There is wonderful power in silence. Words spoken to another who is angry have a tendency to exasperate. But anger met with silence in a tender, forbearing spirit, quickly dies away. The apostle James tells us: "If any man offend not in word, the same is a perfect man, and able also to bridle the whole body." James 3:2.

> Angry words! oh, let them never
> From the tongue unbridled slip;
> May the heart's best impulse ever
> Check them e'er they soil the lip.

Always return good for evil; "never lose your temper with anyone"; "lay aside all malice, and all guile, hypocrisies, and envies, and all evil speakings," and you will develop a character that will stand the final test in the day of judgment.

THIS MAN SHALL BE THE PEACE

One Way Out for a War-Wrecked World

H. H. MATTISON

The Solution of the World's Problems

TO LIVE at peace has always been the worthy aspiration of a large section of humanity; but with the advent of the atomic bomb, peace has suddenly become more than desirable; it has become imperative if the human race is to survive.

"We readily agree that modern man is obsolete," writes Henry Steele Commager in a recent issue of *The Atlantic Monthly*. "We still appear," he continues, "to regard the atomic bomb as merely another and more powerful instrument of war itself. . . . We still fail to realize that it has done away with old-fashioned notions of war, of security, and of sovereignty."

The dropping of two small bombs on two Japanese cities hastened World War II to an unexpected end and left the whole world awed and apprehensive. The United States found itself a co-possessor of appalling power, and it is realizing more and more as time goes on the tremendous responsibility involved in the possession of such power. Fear of this potential weapon of destruction has doubtless encouraged the peacemakers to search more diligently than ever before for ways of making a lasting peace. Their efforts to date, however, have brought forth little to inspire confidence or to increase our feeling of security.

One is tempted to wonder if we are really sincere in desiring peace. Edgar L. Jones, writing in the February issue of *The Atlantic Monthly* under the caption, "One War Is Enough," asks this pointed question: "Has everyone in this country lost faith in peace?" He gives the following reason for his question: "Here we stand at the threshold of what could be a new and better world, and our faint-hearted citizenry insists on looking backward and muttering what has always been must be. World peace, according to our self-acclaimed realists, is not at best a heart-warming dream; common sense demands that we put our trust in bombs and battleships. So let us teach our youth, along with new generations in Germany and Japan, that war is wrong, but at the same time let us be practical and bring up our children to be good soldiers just in case."

We all wonder why efforts in behalf of peace have accomplished so little. Is it because our desires have not been sincere? Is it because man would rather fight than live at peace with his neighbour? Or is it simply because our leaders have failed in the task to discover the right plan or formula for maintaining peace? Our statesmen and military leaders all want peace rather than war. Why, then, has the human race experienced so much of war and so little of peace during the course of history?

Let us turn to God's Word. The apostle James raised the question we are considering and gives us a divinely inspired answer. "From whence come wars and fightings among you? Come they not hence, even of your lusts that war in your members? Ye lust, and have not: ye kill, and desire to have, and cannot obtain: ye fight and war, yet ye have not, because ye ask not. Ye ask, and receive not, because ye ask amiss, that ye may consume it upon your lusts." James 4:1-3. Basically, is not this the cause of war? Human

experience is in perfect agreement with these words of Holy Writ. If greed could be removed from the hearts of men, wars would cease. The roots of war thrive in the sinful heart.

Much is being said about controlling the atomic bomb secret. Keeping that secret can at best only delay the evil day. Eventually scientists of all nations will possess the knowledge and possibly better apparatus than that which English, Canadian, and United States scientists are guarding so carefully. Something more than control of the atomic secret is needed to ensure lasting peace. Unless man gives his full attention to the acquiring of that "something," all other efforts toward peace will eventually fail.

Ponder well the words of the apostle James: "Ye fight and war, yet ye have not, because ye ask not." Jesus taught His disciples: "Ask, and it shall be given you; seek, and ye shall find: . . . for everyone that asketh receiveth." Matthew 7:7, 8. There are some things man does not naturally possess. There are some things he must ask for. The Bible tells us how to acquire blessings and characteristics not inherent within us.

Man does not naturally possess a peaceful nature. Contrary to the accepted theory that man is naturally good, needing only knowledge and education, the Bible states: "There is none righteous, no, not one." The apostle Paul under inspiration thus quotes the psalmist David in presenting unregenerate man's true nature and then continues: "There is none that understandeth, there is none that seeketh after God. They are all gone out of the way, they are together become unprofitable; there is none that doeth good, no, not one. . . . Destruction and misery are in their ways: and the way of *peace* have they not known." Romans 3: 10-17. Many have denied the truthfulness of these words, but human experience bears them out. Acres of ruined cities, homeless millions, and hundreds of millions destitute of food and clothing testify that "destruction and misery" are in the way of man. Who laid the cities waste? Who made millions destitute? The answer is: Man. Our futile efforts through past years and our well-nigh frantic strivings of the present likewise testify: "The way of peace have they not known."

Men have tried to secure world peace in times past. They are still trying today. Past efforts have been defeated because they have been all human, based on human wisdom and judgment. Shall we continue to trust human planning apart from divine guidance, to keep the peace so painfully won? The best that man can do alone is not enough. Says the inspired psalmist: "Put not your trust in princes, nor in the son of man, in whom there is no help. . . . Happy is he that hath the God of Jacob for his help, whose hope is in the Lord his God." Psalm 146:3-5.

Why not trust our case to the Prince of Peace? "These things I have spoken unto you," said Jesus, "that in Me ye might have peace. In the world ye shall have tribulation: but be of good cheer; I have overcome the world." John 16:33. If the whole world would turn to Him, He would give peace to all according to His promise. His invitation is to all: "Look unto Me, and be ye saved, all the ends of the earth: for I am God, and there is none else." Isaiah 45:22.

There is no evidence that the world as a whole will heed this gracious invitation. Like Jerusalem of old, the world does not recognize the things which pertain to her peace. But God's plan for everlasting peace will be carried out. To those who accept Jesus, the Prince of Peace, as their Prince, and who walk under His banner, His assuring promise is: "Fear not, little flock; for it is your Father's good pleasure to give you the kingdom." Luke 12:32. "The kingdom and dominion, and the greatness of the kingdom under the whole heaven, shall be given to the people of the saints of the Most High, whose kingdom is an everlasting kingdom, and all dominions shall serve and obey Him." Daniel 7:27.

Would you, dear friend, have peace, eternal peace? Ask and it shall be given you, for "this Man shall be the peace." Micah 5:5.

KEEP CLIMBING

FERN BLAIR DOSS

"BRETHREN, I count not myself apprehended: but this one thing I do, forgetting those things which are behind, and reaching forth unto those things which are before, I press toward the mark for the prize of the high calling of God in Christ Jesus." Philippians 3:13, 14.

"Forgetting those things which are behind. . . . I press toward the mark." That is, forgetting the unpleasant things behind us,—our trials, struggles, disappointments,—press onward and upward. I remember a poem in the old blue-backed speller that I learned as a child. It said:

If you have a task to do,
Do it with a will,
Those who reach the top
First must climb the hill.

Edward Bok tells a legend of an Indian chief who would try the strength of his youths by making them run as far up the side of the mountain as each could reach by his main strength. On an appointed day four left at daybreak. The first returned with a branch of spruce, showing the height to which he had attained. The second bore a twig of pine. The third brought an alpine shrub. But it was by the light of the moon that the fourth made his way back. Then he came, worn and exhausted, his feet torn and bleeding from the rocks.

"What did you bring, and how high did you ascend?" asked the chief.

"Sire," he replied, "where I went there was neither spruce nor pine to shelter me from the sun, nor flower to cheer my path, but rocks and snow and barren land. My feet are torn, and I am exhausted, and I have come late, but—"

And as a wonderful light came into his eyes, the young brave added: "I saw the sea!"

There on the summit of the mountain he could look over the forests on the foothills and out across the burning desert and could see the sea, shimmering in the far distance. But he had to climb to see it!

De we sometimes get discouraged? Do we feel that we would like to stop and "throw the whole thing over"? But we must not stop; we must climb and keep climbing—"press on" until we reach the top!

At Chamonix there is a monument to a guide who perished in ascending the Alps. The simple inscription on the stone is: "He died climbing."

Soemone has said: "To be victorious over the world does not mean that we shall never stumble nor fall; that is impossible. It means that after every fall we shall rise undaunted, undefeated, and undismayed, and climb, and keep on climbing, and 'die climbing.'"

Frances Anne Kemble says:

A sacred burden is this life ye bear,
Look on it, lift it, bear it solemnly;
Stand up and walk beneath it steadfastly;
Fail not for sorrow; falter not for s[illegible];
But onward, upward, till the goal [illegible]
win.