APRIL, 1933

Reflections of the

The Oriental WATCHMAN and Herald of Health

IN THIS ISSUE . .

NEXT to the English version of the Bible, the Chinese version enjoys the largest sale, announces the British and Foreign Bible Society.

MME. SCHUMANN-HEINK, one of the best-known figures of grand opera of the past, whose rich voice has so many times won deafening applause from the richly clad audiences of the opera houses of America, now an old lady of seventy-one, is singing in a four-a-day vaudeville. When asked why, the prima donna replied with dignity that she needs the money, and adds that she enjoys her work.

COIN-OPERATED typewriters which have been installed in several of Germany's large post offices, are proving popular with the general public. A person need only drop a 10-pfennig piece (about as 1d) in the slot, and the typewriter is his to use for ten minutes. For an additional 10 pfennigs, writing paper, and envelope, carbon, and copy paper may be procured.

AN aerial photographer, cruising one day in an airplane at an altitude of some 23,000 feet above the topography of California, pointed his specially constructed, long-distance camera in the direction of Mt. Shasta, 331 miles distant—one hundred miles farther away than it could be seen with the naked eye—pressed the camera bulb, and found, to his satisfaction, when he developed the film, that he had a good picture of the white-capped peak. This is certainly a long-distance camera record.

SINCE President Hoover cut his salary 20 per cent recently, he received two cheques each 'pay day'—which came for him twice a month. One cheque for $5,000 he kept, while the other, which is made out for $1,250, he immediately returned to the Treasury Department. The reason for this is that the Constitution provides that the President's salary cannot be changed during his term of office, therefore Mr. Hoover had to effect the cut by returning part of his salary to the Treasury.

UMBRELLAS of asbestos are the latest German aid to fire-fighting. Every member of a fire brigade in a provincial city of Germany was equipped recently with one of these new implements. When open, it shields him from the most intense heat so that he can play his hose on the blaze at a close range. An aperture is provided in the umbrella for this purpose. For carrying and storage, the device is quickly folded. The idea for this invention is said to have been taken from asbestos screens employed by sprayers of liquid fire in the World War.

THE personal library of Napoleon Bonaparte is now on exhibition at the Chateau de la Malmaison, where the great conqueror himself placed the books many years ago. However, this library, consisting of historical, biographical, and military publications, books on religion and on the customs of foreign people, and twenty-three cases of maps—but no novels—has not always remained in this palace. After Napoleon was sent to the island of Elba, his wife, Empress Marie Louise, had the entire library boxed up and sent to Vienna, where she held it "in trust for Napoleon's son." But at the time of the dispersion of the property of the Hapsburgs, the library fell into the hands of a Berlin dealer, who still owns it, and has put it on exhibition in its original setting in the hope that he may find a purchaser for it in France.

IN some parts of Siberia, the handling of milk is greatly simplified by the cold weather. It is frozen into short "sticks" around a piece of string or wood, by which the purchaser may carry it home.

KOKICHI MIKIMOTO, Japan's pearl king, and owner of an immense pearl farm, recently burned up 720,000 of his best stones, in an effort to lessen the depression in his industry by bringing up the price of the lustrous gems. And true to his expectation, the price of pearls almost immediately rose 30 per cent.

WOULD you be more liable to ride in a railroad coach which was painted your favourite colour? English railroad officials believe so, and now they are endeavouring to find out what is the most popular colour by operating a "Spectrum Special" from London to the suburbs. The train has six cars, ranging in colour from red to violet. This is to run for a year, and the colour of the coach which attracts the most trade will in the future set the colour for the whole train.

JAPAN has already carefully worked out a plan for the "peaceful penetration" of the Manchurian frontier. She is preparing to send into this region specially picked soldier-pioneers, giving to each a tract of thirty-six acres—which is about ten times as large as the average farm in Japan—and a subsidy of 200 yen a year for six years. At first only men will go into this territory, but later, when the danger from bandits and other such menaces has been reduced, they will be joined by their wives and families.

THE new Italian liner, S. S. "Conte di Savoi," searched for rough seas on its entire maiden voyage across the Atlantic recently in order to test the Sperry gyroscopic stabilizers, guaranteed to keep the ship from rolling in stormy weather—and did not hit a single squall. But on its second voyage, turbulent seas started to roll the mighty steamer through an arc of some thirty degrees. The captain switched on the stabilizers. Almost as if by magic the sickening movement was reduced until it was hardly perceptible.

THE Dead Sea, that saltiest of all inland waters, bids fair to become a veritable treasure mine in the near future. The recently formed Palestine Potash Company is now extracting from its briny depths four kinds of salt: Muriate of potash, used in the manufacture of fertilizer; bromine, used in medicines, photography, and dye making; chloride of magnesium, used in textile and cement manufacture; and common salt. It is said that the supply of these products to be found in the Dead Sea is almost inexhaustible, and the company predicts that within a few years it will be producing some 1,000 tons of potassium chloride a week.

PERSIA has a royal throne for sale. It is made in the form of a couch with a pure gold frame, and its magnificent awning, shaped like an outspread peacock's tail, is resplendent with more than 140,000 multicoloured, sparkling precious gems. It is valued at $19,500,000. A costly globe some two feet in diameter, on which every country is studded with representative jewels, the whole containing some 51,366 gems, is also being put on the market. The financial difficulties in which the shah's treasury is submerged, are said to be the reason for the proposed sale.

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Marching to WAR

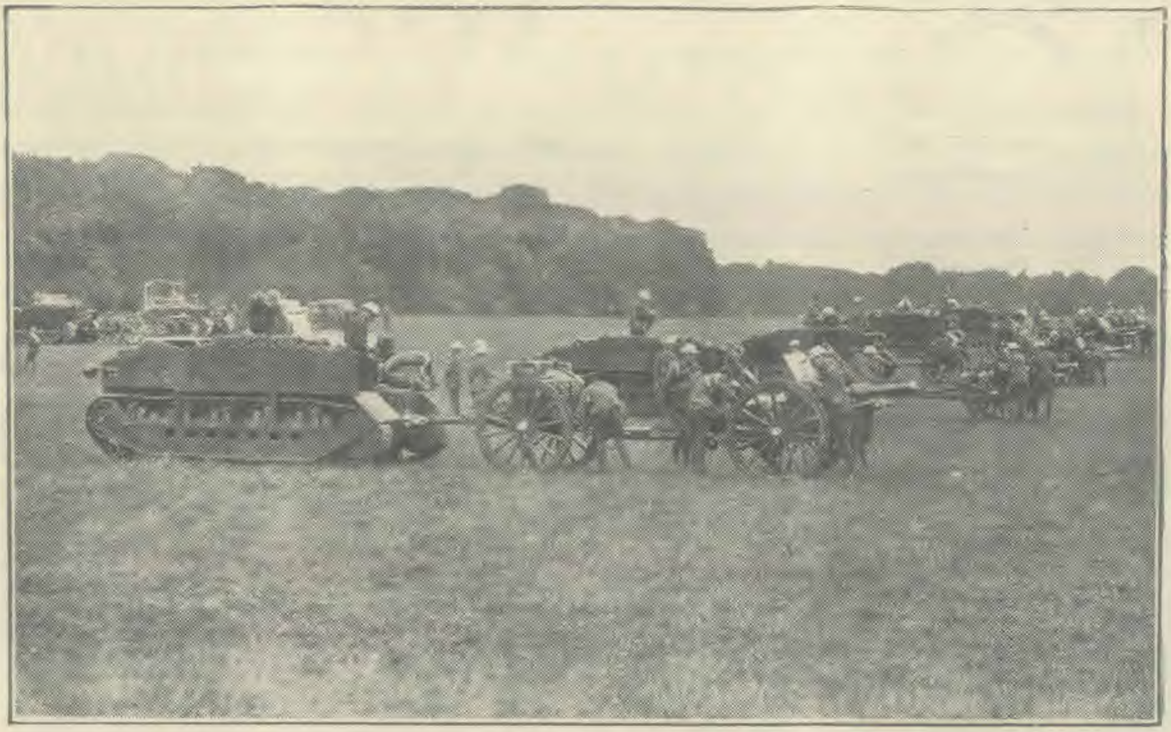
By Gordon Lloyd

MILITARISM is strangling the nations. Armed to their utmost capacity, they still seek more destructive and more expensive weapons. As the New York *Times* remarks: "We know that the burden of national armaments is staggering. President Hoover is authority for the statement that there are today 30,000,000 men under arms, including active reserves—10,000,000 more than before the Great War—this despite the fact that two of the greatest military powers of that time are now permitted only a few regiments."

But fearful as the World War was, it was child's play compared with what the war masters are preparing for the next catastrophe. They are mechanizing their forces to a degree hitherto unimagined. Faster and harder-hitting rifles have been perfected, until in the next war every infantry man will be a veritable machine gun operator. Shells with great explosive force have been perfected. Cannons with more distance and greater accuracy have been made. There will be machine guns that shoot automatically at airplanes. There will be huge tanks with multiple turrets spewing shells and shrapnel, protected with heavy armour, and guided by wireless communication.

Here is the way a newspaper dispatch described an experiment recently conducted by the United States Army:

"A war tank with a 338-horse-power Liberty airplane motor, the weight of the tank 20,000 pounds, raced through icy ponds, over big logs, through barbed-wire entanglements and battered down brick walls two feet thick, at 45 miles an hour. Then, shedding its caterpillar track, it travelled over paved highways at seventy-five miles



an hour." By the time this article goes to press, I should not be surprised if some other deadlier moving fort had been perfected.

Modern Destructiveness

Albert Bushnell Hart, of Harvard University, writing in *Current History* magazine, says:

"The World War exceeded all other modern wars in the horrors of its destruction of the bodies and souls of troops in the trenches, in its reaction on the character of men, women, and children behind the lines, and in the systematic warfare on noncombatants, particularly by aerial warfare. Experts believe that if war should break out tomorrow between Great Britain and France, within a fortnight the principal cities in both countries would be in ruins. Ships of war would be at the bottom of the sea, and the armies would be driven into dugouts. Noncombatants are no longer free from the destructiveness of war. The next world war waged on the same basis as the last war, with the addition of more effective explosives and air warfare, would go far to exterminate millions of civil population. Such countries as Russia, under the direction of modern military science, might direct an endless swarm of airplanes to the destruction of Western civilization."

Col. J. F. C. Fuller, in his book, "The Reformation of War," says:

"I believe that, in future warfare, great cities, such as London, will be attacked from the air, and that a fleet of 500 airplanes each carrying 500 ten-pound bombs of, let us suppose, mustard gas, might cause 200,000 minor casualties and throw the whole city into panic within half an hour of their arrival. Picture, if you can, what the result will be: London for several days will be one vast raving bedlam, the hospitals will be stormed, traffic will cease, the homeless will shriek for help, the city will be in pandemonium. What of the government of Westminster? It will be swept away by an avalanche of terror. Then will the enemy dictate his terms, which will be grasped at like a straw by a drowning man. Thus may a war be won in forty-eight hours and the losses of the winning side be actually nil!"

Poison Gas

In similar vein writes the New York *Evening Post* of the role to be played by gas in the next war:

"Applied science has brought aviation to a day when a lone aviator, riding a mother plane, may drive before him through the sky lanes, a convoy of death in the shape of pilotless planes. Under gas waves spread by them a great city or an army might be anæsthetized for a day or sent into that sleep that knows no waking. In this winged brood of destruction, radio-guided, every plane will be able to drop bombs twenty times as destructive as the largest shell ever hurled from the gun muzzle. . . .

"Science has left no noncombatants in modern warfare, which has become a clash of nations rather than of armies. It has lifted war from the land and water, and from under the water, into a 'fourth dimension,'—the air. Ancient conquerors ravaged the land with the sword and the torch and sowed with salt the ruined towns of their enemies. A modern conqueror hurls tons of nitrogen explosives at a nation and sows an invisible death out of the sky."

Powerless Treaties

It is the opinion of Gen. E. D. Swinton,

inventor of the tank, that a future war would not be between army and army, but between "people and people." He conjectured that the fighting forces would be safer than the civilian population." He foresaw the sowing of desease germs in cities, the employment of airplanes without aviators to spread pestilence, the use of chemicals to destroy lives and staple crops. The outlawing of poison gas by peace treaties was of no avail, he thought. Poison gas will be used and used more effectively than ever before. All treaties, for that matter, will be only so many scraps of paper; nations will march against each other without so much as a formal declaration of hostilities. The "war to end war" has been a failure, and the disposition of the world today is not for peace, but for carnage.

An editorial in a well-known weekly adds additional light on the new turn modern warfare will take in the future clash between nations. "The next war will sweep down like a tropical storm, unannounced by any trumpet of thunder or herald of lightning. That is being planned by those who are studying the future.

"It is certain that if war is permitted again to deluge the earth—and to permit it, all we have to do is fail to prevent it—the tactics of the Great War will be as out of date as if they had been fought in ancient times. War will be less an affair of men and more an affair of machines. The individual soldier with his rifle is almost a thing of the past. Even battlefields, vast armies confronting each other in the same territory, belong to outworn methods. Invisible gases, the suffocation of whole cities without noise, silent horrors of every kind, stealthy assaults by a very few men armed with most potent powers, will be the new order. The forces of nature will be used more and more to supplant the muscular force of soldiers. Ray warfare is already the thesis of military study and experiment on a large scale. Light rays and heat rays are being trained to become allies of Mars. The old heroic manner of man fighting man will be largely done away; warfare will become world murder, with nature as accomplice—if nothing happens to prevent."

If War is Permitted

A German military authority, commander of an army corps during the World War, whose opinion is shared by a leading military expert of England as well as by a prominent member of the French general staff, stated, in an international *causerie* conducted by the New York *Herald* on "the next war," that "victory in the next war will depend largely on the destruction of helpless non-combatants, far in the rear of the fighting lines," and that "this destruction will be chiefly brought about by airplanes. Poisons, including both gases and death-dealing disease germs, will be scattered over the cities. Thermite bombs will start fires, and explosive bombs will destroy factories and lanes of communication, along with the civil population. . . . In case of another war, so much of civilization will be destroyed that a return to something resembling the Dark Ages will not be improbable. European civilization might easily be blotted out."

Major K. A. Bratt, the author of "That Next War," makes this truthful but startling asseveration:

"The white races, the civilized races, cannot survive the next great war, perhaps principally on account of the consequent revolutionary chaos in which the West will be submerged."

In his volume, Major Bratt has this significant title to one of his chapters,—"On the Road to Annihilation."

Light from the Bible

Bible prophets long ago foretold that in the epoch of the world's history in which Jesus Christ was to appear the second time, a strange and anomalous thing would be seen in the earth,—namely, that the world would be deluged with peace talk, and at the same (*Turn to page 29*)

Diet *and* Success

By D. H. Kress, M.D.

REFERRING to the Greek athletes, Paul said "Every man that striveth for the mastery is temperate in all things." There are certain rules that have to be observed by all who expect to excel in any profession. Athletes cannot permit themselves to be governed by inclination in the selection of their food, and hope to succeed. It is not merely the matter of physical strength or endurance that determines success in athletics; the mind as well as the muscles must be kept at its best. The judgment must be alert. No matter how strong an athlete may be, if his mind is sluggish, he is sure to fail. Temperance to him in all things is essential in order to keep both mind and body at their best.

The name of Jack Dempsey is a familiar one. Being always associated with sparring matches and prize fights, the impression prevails that Jack Dempsey is anything but a gentleman. The fact is I myself regarded him as rather a tough character—a mauler. Recently in conversing with a man who lived in his home and who was very intimately associated with him and acquainted with his home life, I was led to modify my own conception of this man somewhat. I was rather surprised to find that he was in possession of almost complete self-control, and yet as I reasoned I began to recognize that a boxer or prize fighter must be able to control his emotions. He must not lose his temper or lose his head no matter how hard he is hit. Composure and a cool head is essential to success.

Some time ago I read the following item which still further led me to think more kindly of this man, Jack Dempsey. An enterprising cigarette firm sent an agent to Jack Dempsey, asking for his signature to a recommendation of a certain brand of cigarettes, offering a tempting financial consideration. Dempsey read it and said, "You could not get me to sign that for ten times what you offer. I don't smoke cigarettes and never did. Do you think I am going to ask the thousands of young boys who read about me to take up cigarette smoking? If you had harmless candy or soda water, I wouldn't mind giving you a testimonial for nothing, but I don't sign your testimonials for cigarettes." Twenty-three thousand physicians, a cigarette firm claims, have given their signatures, I am certain, for a much less tempting consideration, in some instances possibly not more than a few packages of cigarettes. Testimonials can be obtained very reasonably from addicts of any drug. It is needless to say every one of those 23,000 physicians was a cigarette addict.

A Prize Fighter's Programme

Recently I read an article written by one whose friend had quite a thorough acquaintance with Dempsey, in which he tells us something of the habits of this man. He tells us: "Dempsey is nearly forty years of age and yet he is the youngest man for his years I ever saw—young, I mean in body and spirit." "I honestly believe," he said, "if Dempsey had been anything else, an actor or a business man, or anything you choose, he would have been just as successful as he was in boxing." He says, "I never saw anyone quite so careful of his living as Dempsey. One day I asked him if he would outline his rules for healthful living. Then he gave me these ten rules, to which he told me he owes his own condition.

"His first rule is to keep clean inside and outside.

"His second rule is sleep. He insists upon eight or nine hours sleep.

"Third, Dempsey eats two meals a day, breakfast and dinner, no lunch. For breakfast he uses plenty of fruit, a boiled egg, toast, no coffee. For dinner he uses fruits, vegetables, salads and milk. He very seldom uses meat, and he advises others to eat it sparingly, if at all.

Next he says, "Take thorough exercise, but not too much." Walking, he thinks, is the best all-round exercise.

"'Condition yourself,' he says, 'to the work you have to do. Above all things be moderate, be sensible—don't overtrain.'

"Dempsey believes that when a person is in normal health he is happy. When he begins to get grouchy, when he hates the sight of his work, when his friends displease him, when his food tastes flat, he is unhealthy. And the chances are that if his diet and exercise and sleep habits are right, what he needs is not medicine, but rest.

"His next rule is to use plenty of water inside and outside, but do not waterlog yourself by drinking an excess of water. Take two baths a day, one upon arising and the other upon retiring. They both should be tepid, followed by a cold shower or sponge and a good brisk rub with a rough towel."

The tenth is "Have yourself examined once a year by a competent physician and do what he tells you to do."

Here we have the secret of Dempsey's good health, cheerfulness, and fitness, as an athlete and boxer.

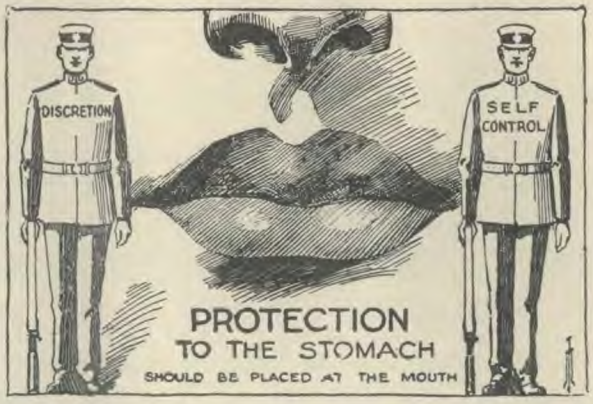
Meat Tabooed

Referring to Dempsey's habits of eating he says: "Part of my job was to order food for the camp, so I know exactly what was on his table. We had a number of trainers and rubbers and other necessary characters to a training camp with us. For them we had to order a lot of meat. 'Give them the meat,' he would say, 'and give me those fresh fruits and vegetables.' And that is

about the way his table rules went, he eating mostly fruit and vegetables and drinking plenty of milk, and his trainers consuming the traditional athlete's diet of meat. But of the lot, Dempsey was by far the best conditioned, the strongest, the quickest, the happiest and the healthiest.

"Dempsey had the gift of an extraordinary body, true enough. But he cared for it as vigilantly as an invalid who has no energy to spare cares for his. And the reward for Dempsey has been perfect health at an age when most of the men of his profession have had to seek new professions, because they hadn't the youth nor the health to continue athletics."

James Corbett, known in his day as the gentleman heavy-weight champion boxer, who defeated John L. Sullivan, has given us the secret of his success. He says: "Many men and women are interested in my health regimen. I tell it willingly to all who ask what it is. I make no secret of it. If what I have discovered will help anyone to more health, he is welcome to everything that I know. After all, my principles and my practices are very simple.



"I have always considered proper eating the keystone of health. My study of diet began fifty years and more ago.

"One of the first things that I discovered was the folly of overeating. I was thrown into contact with the rough, hardy men who were in my profession of that day. They were all heavy eaters. Boils and carbuncles and other disorders which we now know come from impurities in the blood stream were the common lot of athletes. Some fantastic notions we had of their cause. Few of us realized that our eating habits had a lot to do with them.

"Although I did eat meat in training I never used much; not nearly so much as other athletes did. In this way I was different. Fruits and vegetables and milk composed my diet, with meat only because it was the thing to eat, so we thought. We thought it gave strength. A ridiculous idea! I followed this same mixed diet until I was forty-nine years old. One day I read in the newspaper where Sarah Bernhardt had given up red meats at fifty. She held that they were deadly to persons approaching old age. A few days later I read where Georges Clemenceau had made the same change in his diet.

"And so I called to my wife and said: "Dear, we're not fifty yet. But we soon will be. Why wait until there's something wrong with us and the doctors make us change our way of living? Let us forestall trouble and put these red meats out of our diet—now."

"Mrs. Corbett has always been my inspiration and my help. She agreed with the idea. We cut red meats from our diet. We haven't had them on our table since.

We Overeat

"Long ago I concluded that the average person eats too much and eats too often. Athletes in training find that they get along better on two meals a day. They will arise and do their running, and then have their first meal when they have returned to quarters and cooled off. This is around ten o'clock to noon. In the afternoon they go through their gymnasium exercises. In the evening they eat their second meal. This system keeps them fit and brings them to their peak condition. But most of them when not in training go back to the customary three meals a day. Not I. I ate only two in training and out and I eat only two today. I learned my lesson.

"In the morning I eat a light breakfast. All day until nightfall I never eat another thing. Around six o'clock in the evening I have dinner. Breakfast with me is very light because I do not want a heavy meal or need it in the morning. A dish of oatmeal, some whole wheat toast, a cup of hot water into which a quarter of a cup of coffee has been poured and some fresh fruit is an average breakfast. My evening meal is slightly heavier. It will include several vegetables, cooked and raw, and a salad. I use only whole wheat bread. For dinner my drink is milk, one glass, sometimes two glasses. Once a week, perhaps, I will have a little fish or a piece of chicken. I have never cared much for sweets. Dessert at our home is simple. Usually it is fruit."

Diet and Religion

It is just as important for a Christian to observe health rules in order to make possible the development of a righteous character as it is for an athlete to make a success of his profession. It is, in fact, impossible to make a sucess of the spiritual life without observing health rules. Prayer has its place, but if praying does not lead to the better observance of the laws of health, even prayer is in vain. It is impossible for an intemperate man, even if he is a man of prayer, to develop the virtue of patience. Referring to athletes as an example in this respect, Paul in addressing the Christian church says: "They are temperate in all things." Then he added, "They do it to obtain a corruptible crown, but we an incorruptible." This reminds me of the words of Henry Ward Beecher. Being appealed to for assistance in developing the grace of patience by various members of his (*Turn to page 31*)

Thomas Edison's Unfinished Task

One of the Saddest Stories Ever Told

By Arthur L. Smith

IN part two of the Hearst Sunday papers, July 24, 1932, Mr. John O'Hagan has laid bare the saddest story of our generation, if not of all time. It is the account of a genius, revered by science and acclaimed by his generation, who set aside a portion of his later life in which to study religion and died before his purpose was accomplished. Although the article was not written with such an aim in view, it carries a sermon deeper than any religious tract I have ever read.

Thomas Alva Edison combined more scientific wisdom in his brain than any other inventor of our day. To him our era owed a debt not lightly forgotten and, to our shame be it said, in his hour of personal need, we failed him! The man who made light possible for millions went his own road in complete darkness!

According to Mr. O'Hagan, Mr. Edison was not an atheist. "Maybe I'm not a religionist," he is quoted as saying, "but I would be prostituting my intelligence if I denied the existence of a Supreme Power."

He knew, this master mind, what it meant to go blundering blindly along the trail of an experiment until he was sent shrinking back from the presence of God, as the child who has thoughtlessly pursued a butterfly into the presence of a king. He said: "With all the finely calibrated measuring instruments perfected in the field of electricity, it is still as difficult to account for certain laws and electrical phenomena as it is to answer certain questions regarding the soul."

Two Serious Mistakes

It is impossible to imagine that the brain which evolved, from mental chaos, the restraining law for volt and ampere, who caused motion to bring forth power and light, and from friction birthed sound, could not have understood the tenets of a religion whose very simplicity is its emblem of divinity.

Mr. Edison made two serious mistakes in regard to religion.

First: he thought it a matter of intensive reasoning to be applied with the same method the scientific brain searches through the mazes of an experiment. To him it was a mind, not a heart, conviction. "I will invite the leading religious scholars to come here and take up one by one the principal questions underlying the major tenets upon which the pillars of religious beliefs are erected," he is quoted as saying, adding, "A thing that makes me desire this is the fact that many of the greatest and most logical minds throughout the ages have been religious."

Would such a meeting have profited him anything? Could the leading religious scholars, by reasoning alone, agree among themselves in five hundred years, let alone five?

His second mistake was in putting off the study of a subject of paramount importance. He failed to realize that the only excuse for existence upon this earth by man is that it affords opportunity for his own personal salvation. "What is a man profited, if he shall gain the whole world, and lose his own soul? Or what shall a man give in exchange for his soul?" Matt. 16:26. He failed to understand that man shall be judged, not by the money he amassed, the knowledge he possessed, or the accomplishments he intensified, but by the use he made of his time in regard to salvation.

No words of mine could so well portray the reason for Mr. Edison's attitude as his own terse remark: "If they don't agree among themselves on fundamental questions, how can they expect outsiders to accept their teachings?"

False Religion Offered Him

Apparently he had never come into contact with a minister who rested his beliefs upon the Bible alone. Had he done so, it is but fair to suppose that the master mind could have appreciated that a "Thus saith the Lord" took precedence over creed contention. He could have understood a man planted firmly on the truth of Christ, but he could not entertain dogmas.

There is a lesson hidden in this story that every minister of the gospel would do well to consider. It is time the mercenary ones put aside their policy and remembered that they are the ambassadors of Christ on earth and representatives of an Almighty God, a monarch to whom some day they must give account of their stewardship.

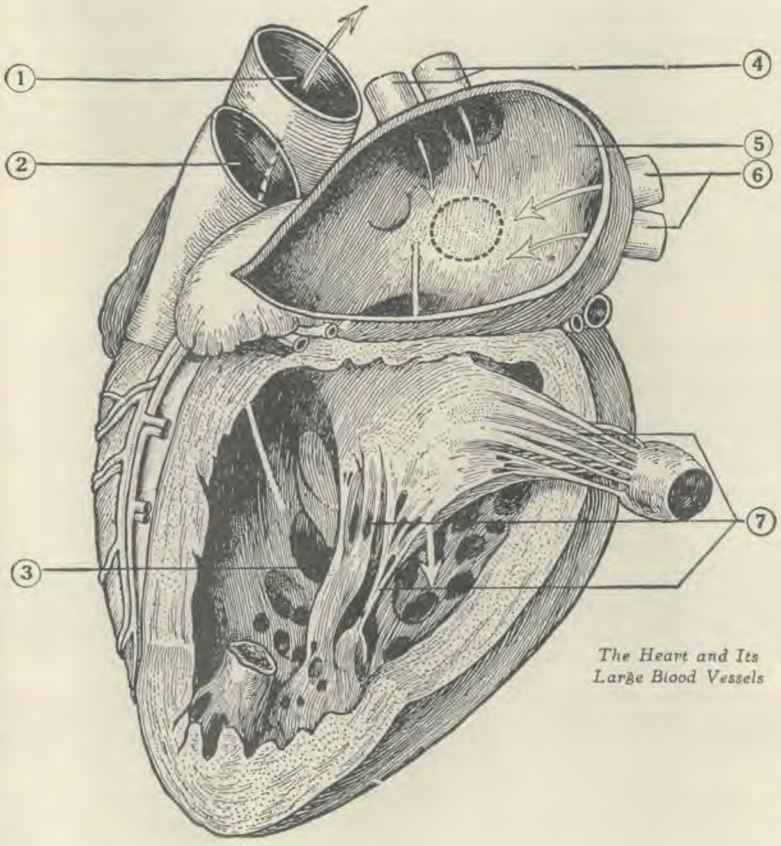
Modernism was undoubtedly advanced to Mr. Edison, for the knowledge that he was a scientist would have given rise to the belief that he would appreciate Modernism. And because Modernism and true religion can never agree, the keen old mind trapped its exponents in fraud and falsehood. To quote his own words, "Religion and science have the same origin. If both are truth there can be no conflict between them." He was right, there is no (*Turn to page 21*)

LOOK *After Your* HEART

By D. A. R. Aufranc, M.R.C S., L.R.C.P., L.D.S., R.C.S.

THE object of the circulatory system is to convey the blood, the nutritive fluid of the body, to all parts to provide energy and effect repair. This work is done by the arteries. In addition to this, waste material, which would clog and poison the body, is carried away to be expelled. This is performed by the veins.

The circulatory system consists of the heart, the blood-vessels, and lymphatics. The heart is the great, central pump of the circulation and lies in the central part of the chest, a little to the left of the middle line, between the two lungs. The heart is really a hollow muscle, conical in shape with the base upwards and the apex pointing downwards. It is enclosed in a serous membrane called the pericardium. This consists of two layers between which is just enough fluid to prevent friction during movement of the heart.



The Heart and Its Large Blood Vessels

The heart contains four chambers, two upper and two lower. The upper cavities are termed the right and left auricles respectively, and the lower ones the right and left ventricles. The auricles of each side communicate with the corresponding ventricles through an opening which is guarded by a valve. On the left side, the valve is called the mitral or bicuspid valve, because it has two flaps or cusps, and on the right side tricuspid, for a similar reason. They are so arranged as to allow the blood to pass from auricle to ventricle, but not in the reverse direction. The auricles communicate with veins and the ventricles with arteries.

The Blood-Vessels

The blood-vessels are the arteries, veins, and capillaries. Arteries differ from veins in having thick walls, which contain muscle fibres. They thus expand and contract with the heart beat and help to propel the blood onwards. They end in tiny vessels called capillaries, which give up their oxygen and nourishment to the tissues. Waste products and gases, such as carbon dioxide, are taken up by the blood and other small vessels which are the starting point of the veins.

In the capillaries, some of the blood plasma escapes into the tissues. This fluid is called lymph and is gathered up and carried back again into the blood by a system of vessels called lymphatics. The vessels of the lymphatic system are very similar to thin-walled veins and are provided with numerous valves.

Veins differ from arteries in having thin walls with practically no muscle fibres, and they therefore do not contract. Many of the veins also have valves. The veins are more numerous than arteries, there being sometimes two veins to one artery.

Action of the Heart

Like all muscles, the function of the heart is to contract. By its contraction, the heart expels from its cavities the blood contained in them, just as fluid is expelled from the rubber bulb of a syringe. The auricles, contracting, send the blood into the ventricles through the mitral and tricuspid valves. The ventricles, in their turn, send the blood into the aorta and pulmonary artery. This action is termed the (*Turn to page 30*)

The Psychology *of* Salvation

No. 5

By Lionel H. Turner

IT was the habit of the great Originator of true psychology to meditate alone on the starlit hillsides, or in the shadowed solitude of some wooded garden, long after the great city where He was teaching was wrapped in slumber.

One night an honoured educationalist from the city came seeking Him. This educator began to ask Him veiled questions concerning the way of life and the great beyond; for he had ideas of his own on these things. But the Divine One cut him short in one staggering assertion that utterly obviated all possibilities of success by any human effort: "Except a man be born again ['from above,' margin], he cannot see the kingdom of God."

When man has done his utmost to re-order his mind for the kingdom of heaven, he has not really begun. The very first step is the restoration of that spiritual control; and to man that is utterly impossible. "That which is born of the flesh," said Jesus in His striking way, "is flesh. That which is born of the Spirit is spirit." The children of humanity, of themselves, can have only carnal minds. There is only one solution: somehow he must be born again from some spiritual source.

"How can these things be?" faltered Nicodemus. "How can these things be?" thousands of other hearts have echoed through the centuries. Between Nicodemus and the spiritual world lay a great gulf. The Divine Psychologist could do no more that night than lead him to that wonderful bridge of belief—"that whosoever believeth in Him should not perish, but have everlasting life."

But our Textbook does not leave us there, bewildered. God has written a profound explanation of the whole matter in another chapter. But it is spiritual. It is addressed "unto everyone that believeth." Ere we enter this temple of revelation, however, it will be profitable to halt a moment here on the threshold to summarise the results of our discussion up to this stage. We will then be better able to understand the solution of the Master Psychologist.

In the first place, examination of the Bible viewpoint has revealed that the peculiarities of the mind do not have their roots in some misty period when the mind was slowly disengaging itself from matter incapable of cognition. Our instincts and complexes are not the indelible tracings of half-savage motives that led our ancestors to habitual action countless millenniums ago. All these things are the degraded remnants of high and holy impulses that controlled a being whom God pronounced "very good" less than six thousand years ago. To find their source we have to trace back the history of a fallen mind to the advent of sin—the fall of man. The human mind is not getting better. It is getting worse.

We found, too, that this "fall of man" was nothing less than an overturning of the powers of the mind, and that it has left us so devoid of spiritual control that the mental and physical desires hold sway almost unrestrained—that man's very respectability is the product of utterly selfish mental balance rather than spiritual control. Moreover, by its very physiological nature, sin holds us captive. Its leprosy has been indelibly etched into our systems through the broken-down synaptic resistances.

We found that man is absolutely self-centred, whereas he was made to be an objective thinker primarily.

We found that nature itself had become untrue to its God; that the very things that made up man's mental world were of sin.

Finally, we hazarded the axiom that there could be only one method of restoration; a new acquisition of spiritual power from the divine source—literally a renewed mind, the obliteration of those neural paths of preferred conductivity that lead the physical man so decidedly into sin; a new course of action to establish new habits that will accord with divine law; a new centre for the mind to revolve about, a centre more absorbing even than self; and finally, a new horizon of thought to occupy the mind and to crowd out "the world, the flesh, and the devil." We suggested that it seemed logical to expect this of the Bible remedy, if we were to consider the Bible consistent.

The War Within

Now let us examine the explanation of the Divine Psychologist as He treats of His own method.

In Romans 7, God's master chapter on mental conflict, we find our beginning. Its subject-matter is simply the behaviour of an ordinary mind torn with the controverting elements of good and evil. And strangely enough, yet not strange to the fundamentalist, the very elements that the searchlight of science would expect to discover as it is focused on the Bible viewpoint of the present condition of the human mind, are the very elements dealt with here.

There is nothing vague or indefinite about it. Two clearly defined forces are declared by the

context to be responsible for all mental conflict. They are referred to generally as "the law of my mind," and "a law warring in my members." "The law of my mind" is a force which seeks, with strange consistency, to lead man into a mental and physical experience that is true to the law of God. It is, however, just now woefully inadequate for the task. Every effort sinks back impotently into the resistless surges of another overwhelming power, "a law warring in my members." The first of these is obviously the remains of that spiritual nature that was originally created in man. We have referred to it as the conscience.

"The law in my members" is the same law referred to earlier in the chapter as "the motions of sins which were by the law." It is very clearly the physiological result of sin in the broken-down synaptic resistances mentioned before in this and former articles.

Now, as long as the individual has a natural mind, a carnal mind—a mind unrenewed by the plan of salvation, he is utterly unable to deal with the impulses that come through the senses according to the dictates of his conscience; for the law that is in his members takes control through these neural paths of preferred conductance from stimuli, to response, altogether independent of the higher powers of the mind. "For when we were in the flesh, the motions of sins which were by the law did work in our members to bring forth fruit unto death." If the mind seeks to interfere, it is altogether impotent before the urge to express in action the impulses of the law of neural habit. "For I delight in the law of God after the inward man [the conscience]: but I see another law in my members, warring against the law of my mind, and bringing me into captivity to the law of sin which is in my members. O wretched man that I am! who shall deliver me from the body of this death?" Rom. 7:22-24.

God to the Rescue

The deliverance is a logical one—the one that the situation prescribes; a new accession of spiritual power sufficient to master the impulses formerly dealt with so peremptorily by the law in the members. "For the law of the Spirit of life in Christ Jesus hath made me free from the law of sin and death." Rom. 8:2. That sentence is the whole gospel. It is the climax of the argument of the Book of Romans, which, in the beginning, defines the gospel as "the power of God unto salvation," or the power of God to the rescue. For "the law of the Spirit of life in Christ Jesus" is just that; a new, mighty, silent-working, spiritual power that comes from above to dwell within the mind and rule supreme.

There is absolutely no doubt that it was to this accession of power that Jesus referred when He told Nicodemus: "Ye must be born again [or, 'from above,' margin]"; for in the same chapter we are told: "For as many as are led by the Spirit of God, they are the sons of God."

To His disciples Jesus spoke more plainly. He said, "But ye shall receive power after that the Holy Spirit is come upon you."

But when we turn to ask ourselves how this power takes control of our minds, we find, as it were, cherubim with flaming swords that turn every way, guarding this avenue of knowledge. It is not for man to pierce that mystery. It is one of "the secret things that belong unto our God." We know only that it is "the mystery of godliness, Christ in you, the hope of glory."

"How can these things be" said Nicodemus

But, thank God, we don't need to know how! The road into the experience itself is never unmarked by a sign-post.

One day a grasping little tax-gather was moved by a great desire to see Jesus. So, having inquired diligently where He would pass, he climbed a tree and waited. But Jesus knew all about it. As He passed, He looked up and called the tax gatherer down. Then, in the presence of the whole company, He invited Zacchæus to take Him to his home, for He must dine with him that day. And Jesus entered that home as He promised. As for Zacchæus—he was never the same man again. Somehow all his avaricious desires ceased to control him. He was no (*Turn to page 31*)

Crime Sweeping On

How to Solve the Problem

By William H. Hurlow

IN spite of the loud assertions that men are growing better and better socially, that evolution is gradually developing that divine something which will raise men above the plane of greed and selfishness, the fact forces itself upon us that crime and lawlessness continue to increase at rates which are alarming and distressing. Mr. Justice McCardie, while charging the grand jury at a recent Leeds Assizes, made the following statement: "We must be under no illusion. The statistics are grave. Indictable offences are increasing in the country at the rate of thousands a year. . . . Crime in England today is much greater than at any time during the last sixty years." From America comes the following statement: "Make no mistake about it, the unorganised decent citizens of the country are absolutely at the mercy of organised bands of guerrillas, armed and ruthless. No man, woman, or child is safe in his own house. . . . The army of crime is thoroughly organised."—*Saturday Evening Post, May 14, 1932.*

The same disquieting condition is reflected in the statements of every other country. The most alarming feature of these conditions is, that they reveal the fact that the criminal of today is being largely recruited from the ranks of the youth. "By far the larger number of crimes are committed by young people. Two-thirds of all those found guilty are under thirty, two-fifths under twenty-two. A middle-aged criminal is rare, and an old one an exception."—*London Daily Telegraph.*

Modern Attitude Toward Sin

A lamentable crime complex has been developed, and it seems that there can be no question that the blame may be laid on the modern attitude toward sin. To bring any reference to sin into the topic of conversation is to make oneself unpopular. The term has largely lost its meaning, and the fact that a sinful act has its influence on the sinner seems to be ignored or forgotten. Repentance, conversion, regeneration, obedience, and righteousness are terms that belong to a receding age. That there is a just God before whose throne of judgment all must appear, and to whom sin is for ever repugnant, is quite outside the sphere of man's thinking today. The desire for righteousness, and the hope for immortality are relegated to the background of modern life.

Among the youth there is a general revolt against constituted authority. The teaching of certain modern schools of psychology has led to a demand for the liberties of the fullest self-expression. They want to follow their own impulses, their own instincts, regardless of results to others, and quite apart from any restraint. Discipline, guidance, and the aid of experience are abhorred. The authority of the church, the Bible, and even the Ten Commandments is flouted. The past and its lessons remove themselves entirely from conscious or systematic influence over the present. We are rapidly moving toward moral anarchy.

With its significance lost, sin has become a perplexing problem. Many are asking the question, "What is sin?" The only authoritative answer comes from the Word of God, which says, "Sin is the transgression of the law." Authority and law, however, have been held in so light regard, and have been tampered with so disastrously, that the further question is asked, "What is the law?"

What is the Law?

Because of the confusion of thought existing among modern religious cults, many fail to understand the true significance of the law of God. They see in it only an arbitrary code of "thou shalt nots" condemning, obstructing and cramping their efforts at full self-expression. A true understanding of the law of God, however, will reveal it as seen by the Apostle James, who called it the "royal law," and the "law of liberty." James 2:8-12. It was stated of Jesus that He would "magnify the law and make it honourable." By precept and example, He gave to the law an expression of the highest principles, and placed it upon the noblest of foundations, that of love—love to God and love to man. "On these two," said Jesus, "hang all the law and the prophets."

The highest possible expression of love is that of unselfish service. The fact of our existence and our relationship to our Creator and to other intelligent creatures, brings upon us certain moral obligations and duties which we cannot avoid. Our daily association with others makes inevitable obligations and duties which restrict our freedom and curtail our rights, in accordance with the rights and privileges of others. The Ten Commandment law of the Bible is the general law growing out of the relationships which we sustain to God and to one another, and is simply an expression of its principles.

These are not arbitrary commands. The principles they voice would still exist, had they not been thus expressed. It will always be wrong to infringe on the prerogatives of God and to refuse Him our worship. It can (*Turn to page 29*)

The World Wants Peace

IN a recent issue of the *Toronto Star* a few suggestions were made, which if put into practice might be a great help in preventing future wars.

The writer was evidently a Canadian who had seen active service in the World War. He knew that in that terrible conflict eleven million lives were snuffed out, and nineteen million of the flower of the world's manhood were crippled and disabled.

The money spent in those four years of conflict would "have provided every family in Canada, the United States, Great Britian, Australia, France, Belgium, Germany, and Russia, with a $2,500 house, a five-acre plot, $1,250 worth of furniture, and also given to every 2,000 families: hospitals, universities, and schools, including salaries for professors, teachers, doctors and nurses."

This same Canadian soldier perhaps heard the speech that was said to have been made by General Currie to the troops at the front on March 27, 1918, "Under the orders of your devoted officers in the coming battle, you will advance, or fall where you stand, facing the enemy. To those who will fall I will say, you will not die, but step into immortality. Your mothers will not lament your fate, but will be proud to have borne such sons. Your names will be revered for ever and ever by your grateful country, and God will take you unto Himself."

This same Canadian soldier saw some of those troops killed in action, and he knows full well that they did not "step into immortality," but are sleeping beneath the sod in Flanders Field. He saw some of them come home crippled, maimed, incapacitated. He sees some of them now, "revered by a grateful country," but sick, helpless and in distress. And the families of some of these men have been in want. Their sacrifices have too often been forgotten.

This Canadian soldier suggests some measures to prevent another war:

"1. That all members of parliament voting for war be given the choice of enlisting in the shock troops, or being shot on the steps of the legislative buildings.

2. That each battleship, cruiser, destroyer, aircraft and submarine shall carry as excess baggage, one or more stockholders in battleship and air-craft-building concerns.

3. That all manufacturers of war supplies be hanged when their profits reach the million-dollar mark.

4. That all holy men who announce to their congregations that 'God is fighting with us' be despatched to interview God personally and find out.

5. That college professors be stopped from delving into history to prove that the enemy always was a low-down scoundrel anyway.

6. That uplift agencies, charged with the moral welfare of the troops, be prohibited from shipping cash registers into the war zone."

While we may not agree with some of the theology in these suggestions, nor approve of all the things he has recommended, we feel there is much food for thought in what he has written. The world wants peace, but there are sinister forces at work planning and preparing for another conflict.—*C. L. P.*

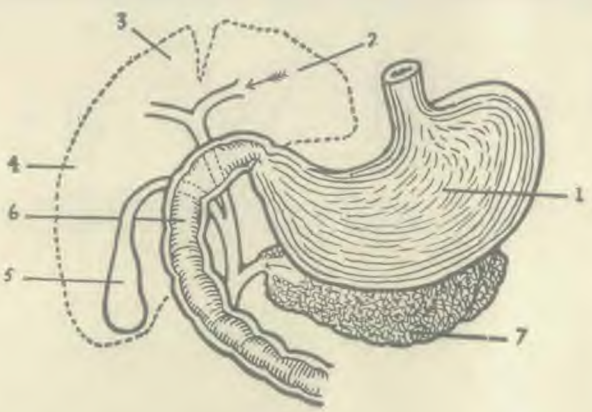
Digestion and GASTRIC DISEASE

Stomach Ulcer: Treatment and Prevention

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

BOOKS on physiology and medical works generally represent the stomach as a cavity in the cause of the alimentary canal. X-ray examinations and modern research, however, demonstrate that in health it is a muscular tube lined by a mucous membrane which secretes the gastric juice, and is simply a continuation of the œsophagus. When empty, the walls of the stomach are in absolute contact.

Our food for some time after it is swallowed is retained in the first part, the "fundus," of the stomach, and this allows a continuation of the digestion of starchy matter commenced in the mouth by the secretion of saliva. There is a special muscular construction that keeps the food in this position, thus dividing the stomach into two parts. By muscular contraction the food is pressed into the acid and more active part of the stomach, where starch digestion altogether ceases. Where acidity predominates, starchy foods, such as potatoes, are not well digested.



The stomach can be called a cavity only when it is in an abnormal state, as, for instance, when it is filled with gas. In its empty condition, it lies at the upper and back part of the abdomen. When it contains food or gas, it projects forward, and rotates on the upper lesser curvature of the stomach, so that its anterior (front) surface is directed upwards toward the great diaphragm muscle that separates the abdomen from the chest cavity.

The heart is placed immediately above the diaphragm. When the stomach is much distended with gas, the heart becomes to some extent displaced. In those with disease of the muscles of the heart (myocarditis) this displacement may cause shortness of breath, palpitation, and even death. Apart from these serious conditions, however, stomach disorders often cause disturbance of the heart's action, and give the sufferer an idea that his heart is diseased. When the digestion is put right, the temporary heart symptoms disappear.

Purpose of Digestion

If a builder had several brick structures which he desired to use for the erection of a new building, it would be necessary first to demolish the buildings and separate them into their simple units, the bricks. So it is in the animal being: all foods must be brought into simple elements through the process of digestion before they can be absorbed into the blood and be utilised for building up the body tissues or for the production of heat and energy. All nitrogenous substances (proteins) are thus reduced to amino-acids, all starches and sugars to glucose, and all fatty substances to glycerol and fatty acids.

The fact that flesh foods are very similar in structure to the tissues of the body, is advanced by some as an evidence of their special value. But even the human flesh consumed by the cannibal, however, must be broken down into its units before it can be utilised. Flesh foods thus have no advantage over vegetable proteins in this respect.

Food Changes in the Mouth

The sight, smell, and taste of food produce a flow of saliva, with its active enzyme ptyalin, which has the property of breaking down starch into sugar.

The way in which food is prepared is thus of great importance in digestion; if it is not appetising, its digestion is retarded. Food should be prepared in a tasty manner.

We should, however, cultivate a taste for simple, nourishing food; simple foods retain their appetising properties, but foods with artificial flavouring quickly lose these properties. Appetite and the flow of saliva again stimulate the flow of gastric juice, and food well digested in the stomach stimulates the digestion in the intestines. Constipation means that the food has not been

properly treated in the mouth and stomach. Our part is to make a good beginning by selecting good, nourishing appetising food, thoroughly masticating it, and leave nature unhampered to finish the digestion.

Ptyalin acts very rapidly. If some bread or potato is thoroughly chewed in the mouth and immediately examined, it is found that quite a good percentage has been converted into sugar. After a short space of one minute's mastication, quite 14 per cent of the total bread is reduced to sugar. Ptyalin, however, acts best on cooked starch. In uncooked starch very little change is noticed even after a long period. The lower animals, creatures of instinct, live on the uncooked food as produced by nature, but man is expected to use his divinely given mind to prepare his food in order to get the greatest good from it.

In cooking and preparing our food, we do not act contrary to nature, but simply use the powers of mind divinely given to us. Back to nature is good for animals, but not necessarily for man. Animals most certainly do best on uncooked foods; domestic animals develop much more disease than do those in the wild, natural state. Man was created in the image and likeness of the Creator. He was not made a creature of instinct, but to co-operate with the Divine. When we abstract the minerals and vitamins from our wheat in making white flour, we are acting contrary to nature, and dishonour creation. When we eat uncooked, doughy wheat-meal bread, we do violence to our mental gifts.

Better than a successful operation, is a prevented one

Ptyalin acts best in a weakly alkaline solution. Even a low concentration of .004 per cent of hydrochloric acid destroys its action at once. If our starchy food after mastication were taken into an acid stomach, its digestion would immediately cease. Fortunately, however, the acid gastric juice does not come into close contact with the swallowed food for twenty or thirty minutes. As already stated, the food by muscular contraction is kept in the first part of the stomach for some time in order to allow the saliva to act on the starchy constituents.

People with healthy, strong digestive powers may eat starchy foods and fruit together; but when such a favourable condition does not exist, starchy food should be eaten at the beginning of a meal and the fruit at the close. Appetising acids, however, increase the flow of alkaline secretions, and thus in the healthy the acid is largely neutralised and starch digestion is not hindered. The secretion of the mouth is alkaline; that of the stomach, acid; and that of the intestine, alkaline. This is nature's order;—alkaline fluids stimulate acid secretions, and acid secretions stimulate the alkaline.

All the troublesome symptoms of indigestion are due largely to abnormal reaction (acid or alkaline) of the digestive fluids. Discomfort and pain over the stomach area, flatulence (wind), heartburn, nausea and vomiting, and disturbances of appetite are all brought about by abnormal reaction of the gastric juices. Before food enters the stomach, the gastric secretion is almost neutral, containing only .04 (more or less) per cent of hydrochloric acid. After the entrance of food, the acidity gradually increases from one to one and a half hours (depending on the nature of the food taken), and then drops to almost neutral by the time the stomach is emptied.

Generally speaking, it is excess of acid that produces symptoms of indigestion. If the normal acid (hydrochloric) is deficient, food is not well digested, chemical changes take place, and foreign acids are produced, such as lactic and butyric, which hinder digestion and produce the symptoms mentioned.

Flatulence

It is surprising how little accurate information scientists give us concerning the physiology of digestion. Anatomy, X-rays, test meals, and observations of digestion through accidental openings into the stomach give us much knowledge, and yet many essentials are unknown.

Dr. Hugh Maclean, the great specialist in digestive diseases declares in the opening paragraph of his work, "Modern Views on Digestion and Gastric Disease":

"When, however, we come to consider gastric physiology, the position is very different (from that of anatomy). We know that certain phenomena take place during the digestion of food, but how the various functions are initiated and controlled is, in the comparatively meagre light of our present knowledge, frequently (*Turn to page 26*)

The EXODU
of AR

Recent scientific investigations in the Bible
from Egypt does not conflict

By L

MANY have wondered why Moses chose to remain for forty years in the land of Midian as a herdsman before returning to Egypt to deliver his people. The answer is not hard to find,—historical circumstances made it necessary.

From the time Moses was about twelve years old until he was nearly forty, he, as the adopted son of the Pharaoh-queen Hatshepsut, his foster mother, had spent his time in her school, in her courts, and in her service generally. When Hatshepsut died in 1492 B.C., Moses' ties to the court of Egypt was severed, and he felt that the time had arrived for him to make plans for the deliverance of His people. He made the mistake of supposing that God would use his military training to accomplish this deliverance, and he killed, at the outset, an Egyptian who was oppressing one of the Hebrew slaves.

When Thotmose III heard this, he sought to kill Moses at once. Thotmose III for fourteen years had been joint ruler with his half-sister wife, Hatshepsut. His only claim to the throne was owing to the fact that Hatshepsut had been his wife, for he had in his veins none of that royal blood which was considered by a large faction in Egypt as necessary for kingship. It seems probable that for years Thotmose III and Moses had been natural rivals and enemies, because Moses, being the adopted son of the royal blooded Hatshepsut, was heir to the crown of Egypt. Legally, Moses had as much right to the throne after Hatshepsut died as did Thotmose III himself; for although Moses had no royal Egyptian blood, neither had Thotmose III.

Why Moses Left Egypt

Under these circumstances, when Thotmose III was wreaking his vengeance on the dead queen by having her name chiselled out of her monuments because she had not permitted him to be more than a figurehead in the government, and possibly, too, because she had favoured a respite in the laborious tasks of the Hebrews and had taken

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n LIGHT ne IAEOLOGY

shown that the departure of the Israelites f the known facts of history.

right

The eye of the Sphinx watched the Exodus of Israel.

Lower left :— Moses before the Pharaoh of the Exodus.

Below :— Israel's first-born were protected by the sprinkled blood on the door.

part of the preceding verse in the Septuagint and Coptic Versions reads, "After these *many* days, the king of Egypt died." This indicates that the Pharaoh from whom Moses fled reigned nearly the whole of the forty years Moses was in Midian. Secular history recovered by archæologists agrees with the Biblical history even to details, for both are part of the same story.

A Glorious Reign

During Thotmose III's sole reign of nearly forty years one of the greatest public-works programmes ever attempted in Egypt was carried on, and today Thotmose III is remembered by the title of "The Great," rather than by his number. Historians call his period the golden age of Egypt. It was an age of the arts in Egypt. Temples, palaces, monuments, and buildings of all descriptions were erected throughout the country. Two million Hebrew slaves contributed largely to make Thotmose the Great famous. His distinctions was purchased by blood money.

Thotmose III was not only a great builder, but he was also a great warrior. His conquests into Palestine and the establishment of the northern boundaries of his empire upon the upper Euphrates River, as well as his other military feats, have gained for him the title of "The Alexander of Egyptian history."

The monuments depict the oppression during the period that Thotmose III was sole ruler. "In a chamber of a tomb in the hills of Abd el Quivah, there is a graphic representation of the making of bricks by captives of Thotmose III, many of whom show strong Jewish features."—*"History of Egypt" by Brugsch, vol. 1, page 375.* The overseers are represented with sticks in their hands, and insist with vehemence on the slaves obeying the orders of the great lord; and one overseer is represented as (*Turn to page 28*)

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From BENCH to THRONE—VII

Does Christ Live in You?

By W. W. Prescott

WE must not think of the gospel merely as a statement of different doctrines. Christ is a person who has actually lived on this earth. The record which we have of what He said and did, is positively reliable. The proof concerning His life and work is more full and more convincing than the proof concerning any other person in history. We have not accepted "cunningly devised fables."

The Son of God entered into history by being born of a woman just as really as each one of us. This is an established fact. In due time He was betrayed into the hands of the religious leaders of His time, just as really as Benedict Arnold attempted to betray the cause of the American Revolution. Authentic records show this to be an historical fact. After an illegal trial the Son of God was condemned to the most ignominious form of death, reserved for the basest criminals, and the Roman soldiers lifted Him up on the cross, while the chief priests, the elders, and the scribes taunted Him with the cry, "He saved others; Himself He cannot save."

The crucifixion of Christ is a fact which cannot be successfully denied. Jesus voluntarily entered the domain of death, not on account of any sin which He ever committed, for He "knew no sin," but in order to give "His life a ransom for many." Having paid this ransom, He "was declared to be the Son of God with power, according to the spirit of holiness, by the resurrection from the dead." Reliable witnesses have testified to this fact all through the Christian centuries. About six weeks later He "was received up into heaven, and sat down at the right hand of God," the outpouring of the Holy Spirit on the day of Pentecost being positive testimony to this fact. The gospel is the good news concerning the Person who passed through all these experiences, in order that He might be "the Saviour of the world."

But did His interest in us and His work in our behalf come to an end when He left this world and returned to heaven? Is it sufficient for us that He set a good example, and left on record His earnest exhortations that we should follow Him? There are some who hold and teach this view, claiming that we can rely upon inherent forces for the power needed in order to realize our longings for a better life. This is the logical result of accepting the principle of evolution in the spiritual realm. This theory does not prove satisfactory in practice, as some of us can testify. It ministers to our pride, but does not enable us to live a godly life. The simple truth is that we must have a power outside of ourselves, if we are able to conquer the evil nature which we have inherited and nurtured. All our efforts to lift ourselves to a higher plane through the exercise of our natural powers are vain. It cannot be done. Our Lord knew this, and He, in His great loving-kindness and mercy, made provision to meet our need.

On the night before He went to the cross Jesus told His disciples, and us, about His plans for our future. Knowing that He was about to return to His Father's house, He declared: "I will not leave you desolate: I come unto you. Yet a little while, and the world beholdeth Me no more; but ye behold Me; because I live, ye shall live also. In that day (the day of the coming of the Holy Spirit) ye shall know that I am in My Father, and ye in Me, and I in you." Just as real as was the coming of Jesus to this world, so real was the coming of the third person of the Godhead, the Holy Spirit. Jesus finished His work upon earth, triumphed over death, and then was taken up into heaven to carry forward a very definite work for us there. And His work in heaven is just as real as His work on earth.

I fear that many fail to realize this. To them unseen persons and unseen actions do not appeal very seriously. They think that they can deal with visible persons and visible things with greater certainty. They do not seem to be able to enter into the experience of Moses, who "endured, as seeing Him who is invisible." This is greatly to be regretted. All that is visible, the earth and all that is on it, even the most beautiful things, will all pass away. The only enduring realities are the unseen things. The material and the visible cannot heal our sicknesses or comfort our sorrows. But "our light affliction, which is for the moment, worketh for us more and more exceedingly an eternal weight of glory; while we look not at the things which are seen, but at the things which are not seen: for the things which are seen are temporal; but the things which are not seen are eternal." Happy is he who can realize this in his own experience.

But what is the definite work of Jesus for us in heaven? Here is my answer: "We have such

a high priest, who sat down on the right hand of the throne of the Majesty in the heavens, a minister of the sanctuary, and of the true tabernacle, which the Lord pitched, and not man." Jesus entered "into heaven itself, now to appear before the face of God for us." "He is able to save to the uttermost them that draw near unto God through Him, seeing He ever liveth to make intercession for them." "It behooved Him in all things to be made like unto His brethren, that He might become a merciful and faithful high priest in things pertaining to God, to make propitiation for the sins of the people."

Do not read these wonderful statements too hastily. Think of them seriously. They enable us to peer into heaven, and by the exercise of the sixth sense, faith, to behold and to deal with unseen things as with realities. Jesus is a real person, in a real place, ready to do a real work for each one of us. He asks for our intelligent co-operation. When He was here on earth, He "gave Himself for our sins," and therefore He "needeth not daily, like those high priests (in the typical sanctuary) to offer up sacrifices, first for His own sins, and then for the sins of the people: for this He did once for all, when He offered up Himself." Having made this acceptable sacrifice for our sins, He, as our High Priest in the sanctuary in heaven, is ready to present that offering in our behalf and minister to us the assurance of sins forgiven, if we are willing that He should do this. This willingness, however, involves the sincere confession of our sins, such repentance as includes the forsaking of our sins, the absolute forsaking of our old self-life by surrendering that life and accepting Christ to live His own life in us, and the claiming by an intelligent faith the victory over the world and its allurements.

But on what basis can we do this? Not on the ground of feeling. Not on the ground of longing. Rather on the ground of what Christ has actually done for us, of what He is doing now, and of what He has definitely promised to do. We need forgiveness, and this is assured, because "Christ died for our sins." We need power for a life of victory over sin, and He has provided that power by sending the Holy Spirit, according to His own words: "Ye shall receive power, when the Holy Spirit is come upon you." We need His abiding presence, for He Himself has said, "Apart from Me ye can do nothing," but He has promised, "Lo, I am with you always, even unto the end of world," and "I come unto you." These promises are fulfilled by the coming of the Holy Spirit, the coming of Christ in the Spirit.

We deal with the ascended Christ, who finished His work on earth and then undertook His work in heaven as our High Priest, still retaining His bodily form. But by the Spirit He comes to dwell in our hearts by faith, and in this way He makes effective *in* us what He did *for* us. Here is the essential experience for every follower of Christ. No mere assent to a doctrine, however true it may be; no professional loyalty to a creed, however orthodox it may be; and no legal righteousness, however meritorious it may appear to us, will commend us to God. Our personal attitude toward Christ determines the verdict concerning us in the day of judgment. We may be "perfect in Christ." Separated from Him, we have no hope, and are "without God in the world."

There is a very close relation between the different phases of the work which Christ has done for us. He assumed human nature that He might die for us. He died that He might destroy the devil, and deliver us from the fear of death. He was raised from the dead and ascended to His place on the throne of grace that He might appear "before the face of God for us." Through His ministry in the heavenly sanctuary we receive the gift of the Holy Spirit, and this is the goal of His whole work, and apart from the coming of the Holy Spirit His sacrifice would have been in vain. It is not enough for us to consent to the fact that Christ was crucified. Each one of us must go further, and say with the apostle Paul, "I have been crucified with Christ; and it is no longer I that live, but Christ liveth in me: and that life which I now live in the flesh I live in faith, the faith which is in the Son of God, who loved me, and gave Himself up for me."

Christ's work for us on earth was absolutely essential to our salvation. None the less necessary is His work for us in the heavenly sanctuary. But neither His work on earth nor His work in heaven, nor both combined, will save us from sin and prepare us for heaven, unless we surrender to a living Saviour and permit Him to live His life in us through the indwelling of the Holy Spirit. Christ within is the hope of glory.

His Lamp

"Ye are the light of the world"

His lamp am I,
To shine where He shall say;
And lamps are not for sunny rooms,
Nor for the light of day;
But for dark places of the earth,
Where shame and wrong and crime have birth,
Or for the murky twilight gray,
Where wandering sheep have gone astray,
Or where the lamp of faith grows dim,
And souls are groping after Him.

And as sometimes a flame we find,
Clear shining, through the night,
So dark we cannot see the lamp,
But only see the light,
So may I shine, His love the flame,
That men may glorify His name.

—*Annie Johnson Flint.*

Grandma Grant's Cure for Stealing

By Doris Iona Brown

I WAS sitting in Grandma Grant's sunny dining room, nibbling a piece of warm, apple-sauce cake, hunting around among the raisins, dispatching stray grains of sugar, and writing down the recipe as she dictated to me in her dear, uncertain manner. You know what I mean,—"A pinch of cinnamon, and, oh, just a few bits of grated nutmeg." It is the best way on earth to copy a recipe, because you get plenty of time in between the writing to chase run-away raisins, explore into the brown depths of the cake, and try to analyze the icing. Well, as I started to say, we just had the flour and baking powder thoroughly mixed in, when we heard John and Mary and Peggy—the children of the new family who just moved into the cottage back of grandma's garden—in dispute outside the window.

Grandma excused herself and hurried out to talk with them. I heard her say: "Well, Peggy darling, Grandma Grant is going to give you one stem of lilies-of-the-valley. There! And here is one each for you, John and Mary. Now run home, like good children; and don't pick any flowers without asking me, Peggy dear." With one of her bright smiles and a pat for each of them, she herded them through the back gate.

"Good-by, children; come see me again some time."

"Good-by," they chorused, "thanks for the flowers."

"Do you know?" said Grandma, as she came back into the room, "I think that children would cause less grief by pulling up flowers and breaking branches off cherished shrubs if we older people—neighbours and parents as well—would remember how we longed for flowers when we were children. Did you see how their faces shone when I gave them the lilies just now?"

I agreed with her heartily, and thought with some amusement of the energy and foresight with which she had forestalled the possible depredation of her cherished new lily bed.

The Cake Again

"Well, where were we? Oh, yes, the icing! Put one cup of sugar into the top of the double boiler with one egg white—" and so on to the delicious-sounding end. Then I took my leave, as any good neighbour would do, through the kitchen way, and she followed to pick me a spray of her cool green-white lilies—perhaps for the same reason she gave them to the children! Turning the corner past the climbing rose vine, the poor old lady was shocked to a tense silence, and could only gasp. Every lily was missing except three or four in the corner!

Being young and somewhat impulsive, I rushed through the garden, hoping to find Peggy. I would give that child a fright. I would teach her the lesson she needed. I would——. Pausing at the garden gate to look about me, I heard voices—grandma was speaking to someone. Coming closer, I heard her say; "Are you sure Peggy did it, John?"

"Oh, yes ma'am," averred John. "Mamma gave her a beatin' for it, and made her go to bed." There was no reason to disbelieve the honesty of that report.

"And the flowers, John," faltered puzzled Grandma Grant; "what did your mother do with the flowers, dear?"

"Oh, she put them in water. She thought they was grand. Mamma sure likes flowers."

"Well, I suppose Mrs. Murphy did all she could about it," I said to the bereft old lady, after little John had gone. "She spanked Peggy and sent her to bed."

"And kept the flowers," murmured grandma, with a strange gleam in her eyes.

"But what—" I began.

"You've a great deal to learn, young lady, about the ways of children and the cure for their mischievousness. I've brought a family up to manhood and womanhood, and there's not a petty criminal among them, but some of them stole things when they were little. It is no crime for a little chap to steal. He doesn't understand property rights and ownership; but he can be taught with ease if his folk will just straighten out his tangles reasonably and courageously whenever they discover them.

"Take the time when George was about four. I dressed him up in his little sailor coat with brass

buttons and pockets on each side—his first pockets—and took him along to the store. While I was busy giving my order, he filled his little pockets with coffee. Well, when we got home, I noticed him chewing something, and discovered the coffee. He told me he got it out of the bag in the 'tore,' and demonstrated the amount he had taken by plunging both fists deeply into my bag and bringing out all he could hold.

"'We must go right back and take the man's coffee to him,' I told the puzzled baby. 'Mother didn't pay for what you took.' And you may believe it or not, but I bundled him into his go-cart and back we went—even though it was time to be starting supper.

"I told the clerk in the store that he should accept the little bag of coffee because we knew it belonged to him and we couldn't keep it; it would be wrong. He hesitated at first, but a little meaningful glance told him that it was meant for an object lesson for the little man grasping the bag and handing it up to the edge of the counter. He got a very sober look on his face, and took the sack, remarking in an undertone: 'Your baby is not the first to carry off fistfuls of fruit and crackers and such; but you, ma'am, are the first mother who seemed to care enough to try to stop it. Thank you, ma'am.' And then we trudged home, George cheerful and I extremely tired, but feeling that I had done right. Children don't always choose to need help just when we are feeling fresh and enthusiastic, my dear; in fact, they almost never do, but it always pays to take care of the situation immediately, even if it nearly finishes you."

This was a new idea to me, but it sounded right, as usual. After a moment's thought, I asked her, "Did that cure him for life?"

The Real Cure

"No, it didn't. That happened when he was so small that much of the reason for it was lost upon him. The real cure came when he was ten. I think children encounter their worst temptations when they begin to have close friends among the neighbour children; a sin seems only a fourth as bad when their best friends are doing the same thing. George and his friend Russell stole a few ears of corn from the crib of a neighbour dairyman; they wanted the kernels for their new pea-guns. George wanted to ask me for some corn, but Russell, being older and possessed of more knowledge concerning the nature of a pea-gun, advised against it, so they stole their corn. That time I made him take some of his own pennies and buy other ears, carry them to Mr. Horn, and tell him what he had done. That was the hardest thing he ever had to do, because Mr. Horn had been known to shoot at other small trespassers. And as if that were not bad enough, Russell's father thought the whole idea was nonsense and would not have Russell humiliated by any such action, so George had to go alone and bear all the blame as if he had been alone in it. It seemed too much until his daddy agreed to walk along for safety's sake, though he was to say nothing.

Done Like a General

"His daddy was a proud man, when he came home, though, for George had done his unpleasant errand like a general and had only choked up slightly at the very first. Mr. Horn had shaken hands with them both, and had told George's daddy that with such training for his boy, he would surely make him an honest man,—which was a lot for Mr. Horn to say."

Drawing a long breath, grandma concluded by saying. "My dear, I just don't believe the child lives who can't be taught not to steal."

"I believe you are right," I said; "and now I see what you meant when you spoke about Peggy's mother keeping the stolen flowers—she was abetting Peggy's crime."

"Yes, and doing it innocently, too. She doesn't take the child's sin in the right way; she feels that it is something to be covered and to be ashamed of, whereas it is only a perfectly natural act for the child. A four year-old doesn't know the meaning of the word 'steal.' If she would bring Peggy along and return the flowers, Peggy would learn that it did her no good to take them in the first place. As it is, the flowers are sitting on the table in Peggy's own house, and are hers in spite of the spanking," concluded grandma, with snapping eyes.

Now maybe you can see why I like to visit with Grandma Grant. I want her cake recipes, and I enjoy her homely kitchen; but I love grandma—she's always right. I never come home with just a recipe; she always gives me a fine idea or two from her long, busy, rich life that leaves me feeling that I have lived a year or so of it with her.

Thomas Edison's Unfinished Task

(*Continued from page 8*)

conflict between *true* science and religion. It is "science falsely so-called" that cannot fit into religion.

We have other brilliant men. Captains of industry, inventors, scientists, statesmen, and investigators. Are they also to be left in the dark? Are they also to set aside a time in the autumn of life, that they may never reach, for a day in which to find God? Only those of us who come into contact with them can answer.

We have seen the passing of a great man. The world can never forget what he has done as long as commerce moves and light shines. Personally I shall never again see an electric light twinkling in a dark place but I will remember the man doomed, by the foolish carelessness of his fellow man, to spend his life in darkness, and who put off his tithe of time to the Lord too long because he knew not that, "now is the day of salvation." (2 Cor. 6:2). Although I did not know Mr. Edison personally, the story of his life has preached to me a mighty sermon. Let others give him the acclaim that is his due, to me the name of Thomas Alva Edison will ever remain the title of the leading character in one of the saddest stories ever told.

The Reason

THE reason why I always try
To do the best I can,
Is 'cause the kind of boy I am
Will mean the kind of man.

The trees that stand so straight and true
When they are old and tall,
You see, were growing true and straight
When they were young and small.

And so, if I'm not honest in
My study, work, and play,
As sure's I live I'll grow to be
That kind of man some day.

The chap that ev'ry one distrusts,
And no one will employ,
You'll find was never on the square,
And tricky when a boy.

So that is why I try to do
The very best I can;
When I grow up I mean to be
A worth-while, foursquare man.

—*Boyland.*

A Boy and a Bird

ONE day a poor little wild bird flying through the air struck a telephone wire and fell to the ground. He lay there in the track of passing motor-cars, too stunned to move. In a few minutes a passing car would have crushed the poor little bird to death, for it was so tiny and so nearly the colour of the road that it is very doubtful if a driver would have seen it. But a little boy came along and, seeing the gasping bird, picked it up in his hands. He started homeward, but he had not gone far before the bird revived. It tried to get away from him, but he only clasped it the tighter.

"No, little birdie," he told it, "I'm going to take you home and put you in a cage."

When he reached home, he put the bird in a cage, and ran to his mother to exhibit his prize.

See, Mamma," he cried eagerly, "I caught a bird."

"Yes," she answered, "it is a very pretty bird."

"I'm going to keep it in this cage," he said, "then I'll have a bird always."

His mother looked sad. She felt sorry for the poor little bird trying so hard to get out of its prison. But she kept her peace, and decided to wait. So the little boy hung up the cage and watched the poor, frightened little bird without pity.

"I think," said his mother "that you may play in the bathroom this evening." She was selecting the smallest room in the house for him, you see. The little boy looked at his mother in wonder for a moment, but he took the bird in its cage, and obediently went into the bathroom. She shut the door and locked it. The little boy heard the lock click, and he realized that he was jailed.

"Mamma, Mamma," he yelled, "I don't want to stay in here!"

"But, my dear," replied his mother, "I want to keep you in there so I'll have you always."

The little boy gasped as if a shower of cold water had been turned upon him. He looked about him. He looked at the white-tiled walls; he looked at the gleaming bath; he looked at the small window. To stay in that small place for ever and for ever! Why, a boy needed to get out in the open where he could romp and play. A boy couldn't be happy shut up in a bathroom. He looked at the poor little bird. It was crouched in the centre of the cage, trembling with fear. Why, a little bird needed to get out into wide spaces where it could wing its way high into the air! A little bird couldn't be happy shut up in a cage!

"Mamma," called the boy in a small voice.

"Yes, dear."

"I want to turn the bird loose."

She unlocked the door, and let her son come out into the garden. Then the little boy opened the cage door, and let the poor bird free. It flew to a high branch in a tall tree. A bit of song drifted back. The boy's mother patted him on the back, and smiled down at him. And the little boy smiled back, quite happy.—*Adna Byrd.*

MEATLESS RECIPES

Tasty Fruit Desserts

BANANA SURPRISE

ROLL some small peeled bananas in milk, and cover with dissolved raspberry jam. Cover each banana neatly with rolled-out puff paste, and bake quickly in a moderate oven. When cold, coat with a thinly made chocolate icing, and sprinkle over with chopped or shredded almonds.

APRICOT ICE

1 quart can of apricots, 2 lemons,
6 oranges, 1 cup sugar.

Put apricots, both juice and pulp, through a colander, add juice of six oranges and two lemons. Sweeten to taste and freeze as for ice cream. When frozen, pack.

FRUIT COCKTAIL

1 cup diced pineapple, 1 cup grapes, seeded,
1 cup diced apples, ½ cup pineapple juice,
¼ cup lemon juice.

Dice the fruit. Seed the grapes, mix and add fruit juices. Chill. Just before serving place the fruit in stemmed glasses. On top of the fruit place a teaspoonful of whipped cream slightly sweetened and flavoured with vanilla.

FROZEN PEACH DESSERT

1 quart peach pulp, 2 cups sugar,
1 quart water, ½ teaspoonful almond
2 eggs, extract,
½ dozen oranges.

Mash enough peaches to make a quart. Boil the sugar and water together to make a syrup and cool. Add the strained orange juice and peach pulp. Stir all together and put in freezer. When it begins to thicken remove the dasher and beat in the well-beaten whites of two eggs. Pack and let stand two hours before serving.

PAPAYA WHIP

To 1½ cups papaya pulp add juice of 1 lemon, ½ cup sugar, and beat into two stiffly whipped whites of eggs.

STRAWBERRY FOAM

3 egg whites, ⅓ cup sugar,
½ tablespoon lemon juice, ½ cup strawberries cut into fourths,
A few grains salt.

Add the salt to the whites, beat till foamy, add the lemon juice, beat till stiff, add the sugar gradually, continuing to beat, and when very stiff, fold in the berries. Serve in stemmed glasses with a large berry on the stem on top. Serve plain or with cream.

ORANGE AND PINEAPPLE ICE

¾ cup pineapple juice, 1¼ cups orange juice,
1 cup water, 1½ teaspoons cornstarch,
⅔ cup sugar, 1 egg.

Heat the water and sugar to boiling. Stir into it the cornstarch, stirred smooth with a little cold water. Beat the egg, stir it into the hot mixture after stirring a little of the hot mixture into it. Add the orange juice and the pineapple juice, and freeze —*Selected.*

Some Uses for Lemons

By Betty Barclay

To Replace Vinegar.—Lemon juice may be substituted for vinegar in any recipe that calls for the latter, except pickling.

To Sour Milk.—Lemon juice added to sweet milk will sour the milk suitably for cooking.

For Stewing Dried Fruits.—Add a small amount of lemon juice and grated lemon rind in stewing such dried fruit as prunes, figs, peaches, etc.

For Aluminium Ware.—When aluminium ware becomes dull or black, clean with a cloth dipped in lemon juice. Then rinse in warm water.

For Copper and Brass.—After juice has been extracted, dip lemon rinds in salt to clean tarnished copper or brass.

For the Hands.—Immediately after dish washing, drop a little lemon juice in the palms, and rub well over hands, to keep them soft and white.

SPINACH WITH LEMON

Add lemon juice to cooked spinach, allowing 1 tablespoon lemon juice to each cup cooked vegetable. Or spinach may be served with lemon garnishes allowing each person to use lemon juice as desired.

COLESLAW OR LETTUCE WITH LEMON DRESSING

Mix thoroughly ¾ teaspoon salt, 1½ tablespoons sugar, 6 tablespoons cream, and 3 tablespoons lemon juice. Combine with chopped or shredded cabbage or lettuce. Serve cold.

HOT LEMONADE

(Serves 1)

1 tablespoon sugar, ¾ cup boiling water,
2 tablespoons lemon juice.

Add sugar to boiling water and stir until dissolved. Add lemon juice, and serve.

Another method for making hot lemonade is to slice a lemon (including skin) and pour boiling water over it. Let stand 10 minutes, add sugar, and serve.

The DOCTOR SAYS

This medical service by competent physicians is free to our subscribers.
Please enclose a stamped, self-addressed envelope if a personal reply is desired.

Urticaria, Hives, Nettle Rash. *Ques.*—"Will you please send information regarding urticaria, or nettle rash, cause, treatment, and cure? The patient has been afflicted for several months, and the condition is really serious."

Urticaria is a sensitized condition, caused by something which is irritant to this patient, but not irritant to the ordinary person. It may be some food, such as wheat, milk, strawberries, oats, eggs, carrots, or any of a good many common and generally harmless foods, or it may be something he is wearing, or the presence of a pet animal, as a horse, cow, or cat, or the pollen of some plant.

The problem is to discover just what in this case is causing the irritation. It may require extended observation and study. Some doctors make a study of helping such patients by discovering the offending article or articles. It is not a thing to be attempted by mail.

Some Causes of High Blood Pressure. *Ques.*—"Is it true that high blood pressure is caused by the use of meat, tea, and coffee?"

Osborne, in "Disturbances of the Heart," issued by the American Medical Association in 1925, says:—

"One of the most common causes of hypertension is due to excess of eating and drinking. The products caused by maldigestion of proteins, and the toxins formed and absorbed especially from meat proteins, particularly when the excretions are insufficient, are the most frequent causes of hypertension. Whatever other element or condition may have caused increased blood pressure, the first step toward improving and lowering this pressure is to diminish the amount of meat eaten."

"Any drug or substance that raises the blood pressure by stimulating the vasomotor centre or the arterioles, when constantly repeated, will be a cause of hypertension. This is particularly true of caffeine and nicotine. Also anything that might stimulate, or that does stimulate, the suprarenal glands will cause a continued high blood pressure on account of the extra tonicity of the abdominal vessels. It is quite probable that in many cases of gout the suprarenals are hypersecreting, and it has been shown by Cannon, Aub, and Binger that nicotine in small doses increases the suprarenal secretion. Therefore, nicotine becomes a decided cause of hypertension and arteriosclerosis."

Iron Foods. *Ques.*—"What foods should one eat to get more iron to make red blood?"

"Foods rich in iron are egg yolk, whole-grain cereals (not white rice, white bread, and some of the breakfast foods), dried peas and beans, fruits, and green vegetables, especially spinach.

Liver is especially rich in iron, but recent experiment seems to indicate that its use stimulates to a temporary increase in blood building, and that the effect of egg yolk is more lasting.

Excessive Hair on Forehead. *Ques.*—"Why do I have little hairs on my forehead?"

Ans.—We suggest that this quite possibly indicates a disturbed functioning of the thyroid and pituitary glands. We suggest that you consult a physician who makes a speciality of endocrinology.

Warts on Hands. *Ques.*—"I have many small warts on my hands. I enclose details of my usual diet. Can you tell me if the trouble is due to any errors of diet and, also, how it can be remedied?"

Ans.—The cause of warts is at present unknown and we do not think they are due to your diet. You should, however, keep the bowels moving freely. We advise you to apply to each wart a small piece of salicylic silk plaster, leaving this in place for a week. If the wart is not removed by this time, it should be cut off with a knife or scissors and the root touched with a spot of pure carbolic acid. Warts may also be tied with silk until they drop off, or touched with acetic acid. When warts come out in crops, daily doses of one dram of sulphate of magnesia are sometimes useful.

Effects of Smoking

THE harmfulness of tobacco is seen in the prominent and common effects on the circulatory system, the alimentary tract, the respiratory tract, the eyes, and the nervous system

Among the effects of tobacco on the circulatory system, are an increase in pulse rate, a rise in blood pressure that is particularly noticed in periods of strain, palpitation and disturbance of heart rhythm, heart pains, arteriosclerosis, or hardening of the arteries. Heavy smoking may lead to sudden death during middle life through severe heart irregularities.

As to the alimentary tract, the most common symptoms noticed are loss of appetite, chronic intestinal catarrh, increase of acidity in gastric secretions, duodenal ulcer, and inhibition of appetite.

Smoking affects the respiratory tract, causing chronic irritation of the throat and larynx, cough and hoarseness, chronic bronchitis, tonsillitis, and sore tongue. Those with tendency to tuberculosis are cautioned against smoking because of its irritating effect.

That tobacco does not have anti-septic value in the mouth is indicated by the fact that tooth decay and pyorrhœa may go on in the presence of heavy smoking.

Dimness of vision, derangement of accommodation and a dilated pupil, due to optic neuritis, are found in heavy smokers. Unless nerve degeneration has set in, these disturbances are corrected on discontinuing the use of tobacco.

For these and other reasons, the tobacco habit is well worth mastering.—*Selected*.

"I Can't Eat That!"

Many persons have mistaken notions that they cannot digest certain kinds of foods. A physician stresses the healthfulness of ordinary foods.

By George K. Abbott, M.D.

I CAN'T eat starches; they give me gas." There is a grain of truth in this idea concerning starchy food. But this grain of truth is poorly understood and almost wholly misapplied. Sixty-five per cent or even more of a normal diet should be starches and sugars, that is, carbohydrate food. So, much more than half of what we eat should be this particular food element.

The real trouble is not with the food, but with its preparation. When thoroughly cooked, starchy foods are very easily digested and give little or no gas. The trouble is insufficient cooking or wrong methods of cooking. Potatoes, which are largely starch and water, are not well cooked by ordinary boiling. The starch granules are not broken up. The starch itself is not dextrinized. A baked potato is much more readily digested than a boiled potato because the baking disrupts the starch granules. Dextrin is the first stage in the changing of starch to sugar, which is necessary before it can be absorbed The potato if boiled, "should fall to pieces." This is the evidence that it is well cooked. Cooking potatoes under steam pressure is even better than baking. The potato, when so cooked, has an unusually sweet taste and "melts in the mouth."

Both Irish potatoes and sweet potatoes when boiled, sliced thin, and browned with just enough butter or cooking oil to prevent sticking and burning are also well cooked. But they are more appetizing and digestible than when prepared only by boiling. Some have got the notion that this is frying, and so have used the grease or cooking oil, but have failed to "cook" or brown the potato. Soaking in grease especially without browning, makes the potato unappetizing and less digestible.

Bread, Rice, Popcorn

Any starchy food that is browned is well cooked. For this same reason scalloped potatoes, macaroni, etc., should be put in thin layers in the baking dish and thoroughly browned. Boiled macaroni (and similar foods) is likely to cause gas in one who is susceptible, while the toothsome, browned macaroni digests well.

Bread, which is of course also largely starch, should be well cooked. The browned crust is better cooked and more largely dextrin than the inner soft part. For this very reason the "heel of the loaf" is the best part of the loaf.

Popcorn is a food liked by young and old, and it is easily digested if well masticated. The starch here is also well cooked, and the starch granules disrupted.

Certain recent investigations of the disease known as arthritis have shown that oxidation is deficient in patients with arthritis, hence foods, requiring oxidation will be poorly utilized by such patients. On this basis, such patients are advised to reduce their starches and sugars. If this resulted in leaving confections, pastries, sweet desserts and refined sugar, and in the moderate use of breads and cereals, no harm would be done. But often it results in cutting down on vegetables and fruits, and this does a great deal of harm.

Diet for Arthritis

One physician has observed marked improvement in a very high per cent of arthritis patients by the use of a diet made up largely of fruits, vegetables, and milk without any other measures of treatment or medicine. These are the foods (with vitamins, minerals, etc.) so necessary for normal nutrition and the prevention of infections. The thing necessary in arthritis is not cutting down the food to suit the oxidation, but stimulating the oxidation to take care of the normal amount of food and especially the natural carbohydrates in the fruits and vegetables. Heat and massage to the joints stimulate the circulation and oxidation as well as relieve the pain, soreness, and disability.

"Don't eat too much starch. Starchy food produces acid." Just where this erroneous idea comes from it is difficult to say. Probably because poorly cooked starches do result in a feeling of heaviness and in the production of gas from slow and imperfect digestion. Boiled potatoes; soft, poorly cooked bread; rice pudding; cornstarch pudding; bread pudding, etc., are by no means the best foods. A hard-working farmer or a labouring man might experience no great amount of distress from such a diet, but the brain worker of sedentary habits, the city dweller, and the invalid will certainly find trouble in using such foods. Then, too, these dishes have but a very small content of the vitamins so necessary for digestive and especially nutritional harmony. Eat starchy foods without refining; eat them as nature made them and with thorough cooking and they will give you no trouble. Then add to this an abundance of fruit, green vegetables, and some milk, and you will have a well-balanced diet.

The Use of Fruit

The sick person, even more than the well, needs an adequate, well-balanced diet with an abundance of vitamin-containing foods—fruit and vegetables.

"I cannot eat fruit." This statement is by no means uncommon. Various reasons are assigned for this notion, such as, "It gives me gas." "I have

too much acid already." "It gives me heartburn." "It makes sour stomach." As with nearly all erroneous ideas, it has some basis in fact. Fruit and vegetables do give more gas than meat and bread. But some gas in the intestines is perfectly normal. Nearly all fruit-eating or herb-eating animals have some gas. The horse that eats both grains and herbs has intestinal gas. If the bowels moved twice a day with thorough evacuation, there would usually be little accumulation of gas, and so but little, if any, distress from it.

Raw fruits, such as apples, give more gas than cooked fruits. As cooking fruit does not destroy its nutritive qualities, cooked fruits may be substituted for raw if this excess gas occurs. The main trouble is that people have perverted appetites. They are not sufficiently persuaded that an abundance of fruit is necessary to health. They, therefore, do not persist in using fruit.

Many of the common distresses of supposedly well persons are due mainly to a lack of fruit (and vegetables) in the diet. The usual chemical changes in the body are acid-producing. Meats, breads, cereals, eggs, cheese, sweet desserts, pastry, and confections are in their use acidifying, as are also tea and coffee. These acids, therefore, if not neutralized by a very liberal amount of the alkalies of fruit and vegetables, will be in excess, and so result in a state of so-called acidosis.

Symptoms of Acidosis

This acidosis produces a number of distressing symptoms, different in different individuals, probably according to their varying susceptibilities, that is, according to the weaknesses of various functions and organs. Prominent among these are headache, fatigue, heartburn, undue susceptibility to colds, also constipation, sleepiness in the daytime, insomnia or disturbed sleep at night, nausea, vomiting, loss of appetite, muscle aching and pains, acid sweat, and even acid disposition. To these may be added a greater tendency to overeat, and an abnormal craving for sweets.

Those who find that the taking of baking soda or other alkaline medicine relieves certain distressing symptoms have thereby presumptive evidence that their diet is unbalanced on the acid side. An alkalizing diet will usually relieve these distresses, and remove the necessity for soda.

Some of these symptoms may, of course, be due to other diseases, such as ulcer, gall bladder disease, or chronic appendicitis. But if these diseases are not present, the symptoms of heartburn, sour stomach, water brash, etc., are usually due to a lack of fruit and vegetables in the diet and are readily corrected by reducing the amount of acidifying food and eating much more of alkalizing food.

A simple and practical rule for securing an alkalizing balance in the diet is to use from three to five servings of alkaline-ash foods to one of acid-ash foods. Even much more than this of alkaline-ash food will do no harm. An excess amount of fruit will not overalkalize the system; so one need not be afraid of too much fruit and green vegetables, but much harm is done by even the customary diets which usually contain a great excess of acidifying foods.

Digestion and Gastric Disease

(*Continued from page 15*)

but a matter of speculation and conjuncture."

In what way flatulence is produced, for instance, is a matter of opinion. It cannot be due to fermentation, for it arises before any fermentation could possibly take place. Some maintain that air is actually swallowed with the food; others that the gas is secreted by the lining membrane of the stomach. It is said that surgeons have actually observed this secretion.

The very quick production of flatulence, to our mind, can only be due to chemical action. When excessive acidity is produced in the stomach, the alkaline juices are regurgitated through the pyloric opening into the stomach. As the pancreatic juice contains bicarbonate of soda, a chemical reaction immediately takes place and an abundance of carbonic-acid gas is the result.

Patients who take bicarbonate of soda for acidity, frequently notice this production of gas. This is one of the great objections to the use of bicarbonate of soda. Another objection to its use is that it eventually increases acidity. Bicarbonate of soda, in ten-to fifteen-grain doses, is frequently given dissolved in water one-half hour before meals to increase the acidity of the stomach secretions. This view is in harmony with the statement we have made that all symptoms of digestive troubles are due to abnormal reactions (acidity or alkalinity) of the digestive juices.

Ulcer of the Stomach

The treatment of ulcer of the stomach illustrates well the importance of the reaction (acidity or alkalinity) of the gastric juice. Excessive acidity not only is an important cause of ulcer, but also prevents the ulcer from healing, hence acid fruits are generally prohibited in this trouble.

Functional and all organic diseases of the stomach (ulcer, cancer, and gastritis) present the symptoms of flatulence, acidity, pain, nausea, vomiting, and loss of appetite. In organic disease, however, on pressure over the upper part of the abdomen a tender spot can be found. It is only in the parts in which hydrochloric acid occurs that ulceration is found. The acid and pepsin of the gastric juice seem to digest injured parts of the stomach wall and thus leave an open sore—an ulcer.

How the injury or lack of vitality in a particular spot is brought about is not certain. It is probably due to some rough indigestible food or toxic infection from mouth pyorrhœa or chronic appendicitis.

The toxins (poisons) are carried by the blood and lymphatics to the lining membrane of the stomach, a little abscess bursts and leaves a sore that will not heal while bathed by an acid secretion.

Ulcers are not found in the duodenum, the first part of the small intestine, because the digestive juices in this part are decidedly alkaline; but ulcers are especially common in the pyloric end of the stomach or in the pylorus itself, where the secretion is intensely acid.

Treatment of Ulcer

It is found that by keeping the contents of the stomach neutral or alkaline, the ulcers will heal; but while acid is present, healing is very much retarded. Bicarbonate of soda is the favourite remedy for reducing acidity, but as we have stated it produces flatulence and eventually increases acidity. The alkaline powders given for stomach acidity, mostly contain in addition to the soda, carbonate of magnesia (heavy), carbonate of lime, and some bismuth salt. If there is a tendency to constipation, the carbonate of magnesia is increased, in amount; if there be diarrhœa, the lime and bismuth are increased.

Full digestion of our food does not take place until it reaches the small intestine. The pancreatic juice poured into this part contains "enzymes" for the digestion of all classes of foodstuffs: (a) Trypsin for proteins; (b) amylase for starch; and (c) lipase for fats. It should be remembered, however, that the mastication of food in the mouth prepares our food for stomach digestion, and stomach digestion for full digestion in the small bowel. Hydrochloric acid and pepsin of the stomach produces proteoses, peptones, and these are converted into amino-acids in the small intestine. These amino-acids are units that are absorbed by the blood and build up into complex proteins, which repair waste tissue.

Keeping the stomach alkaline in the treatment of ulcer interferes with the conversion of proteins into proteoses, and peptones; hence the necessity of a very light diet consisting mostly of milk, with perhaps Benger's Food and, a little later on, easily digested egg food. Under the alkaline treatment, ulcers heal completely. Very few operations for gastric ulcers are now necessary. In the operations for gastric ulcer the small intestine and the stomach are united by an artificial opening which allows the alkaline duodenal secretion to enter the stomach, neutralise the acid, and thus allow the ulcers to heal. But when the acids can be kept in abeyance by the continuous use of appropriate alkaline powders, operations are in the great majority of cases unnecessary.

The success of the alkaline treatment has given the specialist the idea that the stomach is really an unnecessary organ and that the acid secretion is a decidedly injurious element. Dr. Hugh Maclean, after stating that the intestinal digestion can be complete even though the gastric digestion fails, makes the remark: "On the whole we could get on very well without stomach digestion."—"*Modern Views on Digestion and Gastric Disease*," *page 57*.

And, again, after speaking of the injurious action of acid and the beneficial result of alkalis in ulcer of the stomach, he writes: "When nature first made use of hydrochloric acid as a suitable substance for aiding digestion in the animal organism, she might almost be said to have made a mistake; at any rate, the experiment was a bold one. Hydrochloric acid in a free state is a most powerful substance, which tends to destroy or disintegrate whatever it touches."—*Ibid., page 147*.

We quite believe that in a purely evolutionary process mistakes probably would occur, but when the Creator placed acid and pepsin in the secretion of the stomach of the mammalia, the highest animals, He knew what He was doing. Frequently, when a person dies with food in the stomach, it has been found that the gastric fluid has digested even the walls of the stomach itself. It is when life departs or injury takes place, that the acid has such a bad result; life in a tissue preserves it intact. A flourishing plant will overcome disease; but when its vitality is lessened by any cause, then disease may be the overcomer.

In making these statements about the gastric juices Professor Maclean evidently based them on his experience in disease *and not in health*. Elsewhere in the same work he shows that the preparatory partial digestion in the stomach is essential for its full digestion in the bowel. In speaking of the powerful enzyme of the pancreatic secretion, trypsin, he writes:

"It would seem as if pancreatic and intestinal juices do not bring about digestion or destruction of injured tissue as is the case with gastric juice. Possibly this very interesting feature of pancreatic digestion is associated with the property of trypsin, *which enables it to digest much more easily tissues which have been already acted on by gastric juice*. On certain so-called 'natural' proteins as they occur in nature unchanged by any artificial process, trypsin has no great effect. . . . At any rate, it is certain that healing of abraded mucous membrane can take place in the presence of pancreatic juice while it does not, or cannot, do so in the presence of gastric juice."—"*Modern Views on Digestion and Gastric Disease*," *page 72*.

No ulcers form in the duodenum, where the tissues are bathed with alkaline pancreatic juice, and this is the key to the healing of gastric ulcers. Keep the acidity down and the ulcers heal. But in the absence of acid the diet has to be greatly restricted, milk being the chief if not the only food. For ordinary food, however, the hydrochloric acid of the stomach is absolutely necessary.

To Prevent Ulceration of the Stomach

On this subject Dr. Maclean writes: "In subjects predisposed to ulcer there is little doubt that vegetables, such substances as nuts, raisins, skins of fruit, and other indigestible and rough foods frequently play a part in the etiology (causation). Highly-spiced articles and irritants of various kinds may set up a kind of gastritis, and so lower the vitality and resistance of the mucous membrane; at the same time, the flow of gastric juice is increased, thus providing more acid to act on the already injured tissue. A similar effect is

produced by a high-protein diet, which tends to stimulate the flow of gastric juices and promote hypersecretion."—*Ibid, page 73.*

The professor particularly speaks against beef-tea and animal broth as foods that produce an abundant flow of acid.

If a man keeps in perfect health through a healthful, nutritious diet, outdoor exercise, cold bathing, and plenty of sleep, the vitality in the walls of the stomach will prevent all ulceration. Poisoning of the lining of the stomach from toxins in infective foci, such as the tonsil and appendicitis, of course must always be avoided.

The Exodus in the Light of Archaeology

(*Continued from page 17*)

speaking thus to the labourers; "The stick is in my hand, *be not idle.*" This brings to mind the words of the son of Thotmose III, as recorded in Exodus 5:17, "Ye are idle, ye are idle."

In the mounds of Heliopolis, one of the cities, according to the Septuagint Version, which were fortified by the labours of the Hebrew slaves, archæologists unearthed many sun-baked bricks, bearing the stamp of Thotmose III. These bricks on being broken show that they were made without straw; whereas, ordinarily, the earth of which these bricks are made is held together by a mixture of chopped straw.

Israel's Oppression

When Moses and Aaron appeared in 1451 before Amen Hotep II, the son of Thotmose III, they found that their demands in favour of their brethren in slavery led only to an aggravation of their servitude. The straw which had been supplied to the Hebrew slaves was no longer supplied, yet they were required to make their bricks with straw. Not only must they make their bricks with straw, but they were required to turn out a specified number of these bricks every day in the week. It was about all they could do to make the bricks with the straw supplied to them; now that they were obliged to turn out the same number of bricks and prepare their own straw for these bricks, they found the task beyond human endurance. So when, in spite of all the threats of the taskmasters, the bricks fell short and their native officers were beaten and they complained to Pharaoh, instead of obtaining any redress they were again told by the tyrant that they were only idle, and that they were absolutely required to make the full number of bricks as before the straw was denied them.

The consequence, although it is not written, is easily seen in these bricks made without straw in the mounds of Heliopolis; the Hebrew slaves would make as many bricks with the straw mixture as they could, and fill up the number required, when straw failed, by making some without straw.

The question may arise, how does it happen that the stamp of Thotmose III appears on these strawless bricks when the difficulty concerning the straw did not come up until his son ruled? As Moses and Aaron very likely began their work in the first year of Amen Hotep II, it appears that the new king had not yet changed his father's stamp at Heliopolis for one of his own.

Egyptian Idolatries

When the fifth plague—that of the murrain of beasts—struck Egypt, Amen Hotep II was touched in a very special and tender spot. "No monarch showed such a fanatical attachment to sacred oxen and cow deities as he. In 1906 Naville discovered at Deirel-Bahari the famous statue of a gigantic Hathor cow, with Amen Hotep II kneeling under the cow's belly, imbibing the divine milk, and therefore becoming adopted as her son. Tremendous, therefore, must have been the blow inflicted on the king when these sacred cows, typified in the statue adored by Amen Hotep II himself, fell victims to the ravages of the fifth plague."—*G. A. Frank Knight, in Journal of Transactions of the Victoria Institute (1927), page 106.*

Destruction of the First-born

According to Exodus 12:29 the first-born son of the Pharaoh that sat on the throne fell under the tenth and last plague. Do Egyptian records afford any confirmation of this extraordinary and tremendous tragedy? "The evidence is not altogether wanting. Thotmose IV, the son and successor of Amen Hotep II, records on an immense granite slab that one day hunting gazelle in the desert, he was tired, and lay down to sleep under the shadow of the Sphinx. The god spoke to him in his sleep, promised him the kingdom, and ordered him to clear away the sand from his (the god's) feet. It is evident from Thotmose IV's narrative that he had no expectancy of being king. He was the son of Amen Hotep II, but not by a woman of royal rank. His elder brother, the offspring of a union with a royal princess, was the legal and destined heir to the throne. Why did not the crown prince succeed? Simply because, as the first-born of Pharaoh that sat on the throne, he perished in the tenth plague."—*Id., pages 106, 107.*

The way at last was prepared for the Exodus; and Moses at the head of two million freed slaves left Egypt about 1451 B.C.

The archæologists have found the mummies of scores of Egyptian Pharaohs. The mummy of Hatshepshut, the foster mother of Moses, and the mummy of Thotmose III, the rival of Moses, are in the museum at Cairo, Egypt. Had Moses chosen the pleasures of sin for a season, and the pomp and glory of the Egyptian throne, the modern world today might gaze upon the mummy of Moses also. Because Moses chose "rather to suffer affliction with the people of God, than to enjoy the pleasures of sin for a season; esteeming the reproach of Christ greater riches than the treasures in Egypt" (Heb. 11:25, 26), he had a special resurrection (Jude 9). That Moses is alive today is proved from the fact that he appeared to Jesus Christ. (Matt. 17:3.) Did Moses choose wisely? If he did, let us make the same choice today that he did thirty-four hundred years ago. Those who do so will enjoy eternal life with Moses and with God.

Crime Sweeping On

(*Continued from page 12*)

never be right to kill, steal, or lie in our association one with another. These principles of our existence must be as lasting as the relations from which they arise. As long as man exists and God rules, these laws will govern us. Their eternal character is expressed in the words of the Psalmist, "The work of His hands are verity and judgment; all His commandments are sure. They stand fast for ever and ever, and are done in truth and uprightness." Ps. 111:7, 8. And in the words of Jesus, "It is easier for heaven and earth to pass, than one tittle of the law to fail." Luke 16:17.

Results of Keeping and Breaking

Continued obedience to these divine laws, from the standpoint of loving recognition of our duties to others, and in unselfish regard for their welfare, will bring joy, peace, and perfect contentment in a measure not hitherto experienced.

Disobedience developed in unfettered self-expression, uncurbed impulses and desires; born in the utter disregard of other's rights and privileges, and in selfishness and greed—can only result in sorrow, strife, and bitter discontent. This transgression of the law, this failure to regard our relations to others, this dis-service to humanity is *sin*. God will not perpetuate such a condition, and its ultimate consequence to the sinner will be eternal death; for, "the wages of sin is death."

One cannot escape the conclusion that this old world is engaged in a wild gallop to its doom. Can its progress toward moral anarchy be arrested? Can our youth be saved from the inevitable consequences of the modern vogue in the teachings of psychology? A former police commissioner of New York City utters this despairing cry, "We cannot cope with the problem. It is really up to our social service agencies. They should do something about it." It is a fact that there are more societies for social uplift today than ever before. But to the keen observer, many of these are seen simply as examples of failure, for they are being pulled from their moorings by the powerful stream of lawlessness prevalent in this age.

Getting Rid of Sin

Sin will never submit to mass treatment, whether social or legislative. Sin is a personal matter, a disease of the individual heart. Paul, the apostle, has stated, "The carnal mind is enmity against God: for it is not subject to the law of God, neither indeed can be." Rom. 8:7. A change of heart is necessary. The individual who would escape the consequences of this lawless age, and who would conform to the will of his Maker, must learn to pray with understanding earnestness, "Create in me a clean heart, O God; and renew a right spirit within me." Ps. 51:10. He must learn again the significance of the old-fashioned terms, repentance, regeneration, and salvation. He must learn the value of the blood of the crucified Saviour to atone for the sins of the past. The crucifixion of the old man must be the spiritual experience of the one who would escape the bonds of a past life. The old life must die before he can be born into the new. The lessons of independence, self-reliance, and emancipation must be forgotten, and in their place must be learned the principles of self-abnegation, entire dependence on God, and humble submission to the Divine Will.

The life must be opened to the influence of the Spirit of God, by which all the affairs of the life must be controlled. The whole outlook on life will then be changed. Things will be weighed in the light of their eternal values, and the true worth of righteousness will be acknowledged. As the love of Christ gains possession of the heart, it will express itself in unselfish service to mankind. The righteousness of the law will be fulfilled in the life and reflected in the relationships one holds to another. Love will be the constraining influence behind every thought, word, and act. Joy and peace will fill the life, and the cry of the soul will be, "I delight to do Thy will, O my God: yea, Thy law is within my heart."

Marching to War

(*Continued from page 5*)

time would be frantically preparing for a monster and bloody conflict.

Long ago John the revelator, looking down to our very time, wrote of the war mania that would obsess the nations:

"They are the spirits of devils, . . . which go forth unto the kings of the earth and of the whole world, to gather them to the battle of that great day of God Almighty." "And he gathered them together into a place called in the Hebrew tongue Armageddon." Rev. 16:14, 16.

As a striking parallel to this prophetic utterance, let us consider a statement made by Ramsay MacDonald of Great Britain in the House of Commons some time ago:

"For the present general competition in arms of the nations it is difficult to say who is responsible. It would seem as if they were all bewildered, or labouring under some doom imposed upon them by devils or something else, going on and on until once again they are launched into war. . . . People are beginning to feel there is something devilistic in the operations now going on to increase armies, navies, and air forces." How more graphically could the words of prophetic Scripture be fulfilled than we have seen in this chapter? God's word is carried out to the very letter in the war preparation and peace propaganda now absorbing the world.

We are told that "when they shall say, Peace and safety; then sudden destruction cometh upon them." 1 Thess. 5:3. Regardless of all the talkative peace propaganda, we find in the world around us a condition prophesied by the prophet Joel: "Prepare war, wake up the mighty men, let all the men of war draw near; let them come up: beat your ploughshares into swords,

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and your pruning hooks into spears." Joel 3:9-12.

Peace, peace, peace—yet by the quotations from these eminent writers we feel it is everything but peace. Is the future dark? Just war and no peace?

A Word of Hope

No! The King of this earth, Jesus Christ, is coming again. "I go to prepare a place for you. And if I go and prepare a place for you, I will come again, and receive you unto Myself; that where I am, there ye may be also." John 14:1-3.

He will be coming soon, and we shall dwell with Him in a land without war, misery, and pain. In the near future we shall have everlasting peace when He returns to take those who are ready to go home with Him.

Look After Your Heart

(Continued from page 9)

heart beat and occurs about seventy-two times a minute in a young adult, or four times to each respiration. Various things in connection with the heart beat produce sounds which can be heard through the chest wall. These sounds are very important in the diagnosis of disease.

During contraction, the heart does a great amount of work. It is estimated that at each beat it does as much work as would raise seventy-five pounds one foot high. During a day of twenty-four hours, this equals lifting 3,888 tons a foot high in a minute. Considering this fact it is not surprising that the heart frequently becomes diseased when it is not treated with care; in fact heart disease is by far the commonest of all complaints.

In addition to these facts, we must bear in mind that the heart, unlike many other organs, cannot get absolute rest. There is a short pause after each contraction during which time it snatches a very brief respite, and during sleep the heart beat is reduced, giving it comparative rest.

Circulatory Diseases

As has already been stated, the heart is frequently the seat of disease. Any such disease must be serious because the heart's action is so intimately connected with life and health. It should not be forgotten, however, that this organ possesses very great powers of recovery. The heart of some animals has been known to beat for several hours after removal from the body.

In some cases, the actual muscle of the heart may become diseased. Such cases are very serious as the organ may rupture or suddenly stop. Then there is another type in which the valves are at fault. There may be obstruction to the flow of blood through the opening, or the flaps of the valve may not function properly, resulting in a leakage back again after the valve should normally be closed. There are also diseases of the membranes such as pericarditis and endocarditis.

Heart disease may arise from a number of causes. Poisons in the body from such complaints as influenza, rheumatic fever, etc., may be the cause. Alcohol is a common poison which affects the heart in such a way that the muscle fibres in time become replaced by fat. When this happens, a sudden strain put upon the organ may cause it to rupture. Strain, worry, lack of rest, and over-eating are causes which commonly bring on heart disease. Indigestion and certain mental conditions, such as worry, acting through the nerves produce functional disturbances. That is to say, the heart beat may become irregular without any actual disease being present.

In order to have a healthy heart, it is important to keep a cheerful outlook on life, get plenty of rest and good food, and avoid worry. Should a fever be contracted which is likely to affect the heart, it is most important to remain quietly in bed until recovery is complete. No sudden strain should be put upon the heart for some time.

In addition to the heart, the blood-vessels themselves may become diseased. Varicose veins are, unfortunately, only too common. Other serious affections are embolism, thrombosis and aneurism.

Toward Perpetual Motion

PERPETUAL motion has long been an aspiration of visionary inventors. It has been practically eliminated as a possibility in the thought of most serious workers. Yet a new clock has just been developed in France which comes as near to being a perpetual motion machine as anything yet devised. This clock employs a source of energy which seems to have been neglected hitherto—the temperature. Temperature is everywhere and it varies everywhere. There is no normal location where the temperature will not change at least one degree in a day. It usually varies over a much wider margin. Yet this new French clock will operate 120 hours on the amount of energy it gets from a single degree's variation.

The method by which this timepiece operates utilizes a U-shaped glass tube, one end of which is insulated against temperature changes. In this tube is mercury. As the exposed end of the U comes in contact with the slightest variations in temperature the differences between it and the insulated end cause the mercury to move over to one side or the other. This change in the weight of the mercury tends to make the U swing like a pendulum, and this swinging stores up energy in the clock. It is said to be absolutely silent and, getting all the power it needs from the temperature changes around it, it is good for an indefinite period.

Power to run a clock is one thing, and power for commercial purposes is another, but it is not beyond possibility that some means of taking advantage of the air temperature variations may ultimately be developed which will form a free and continuous source of power for all purposes. At least this French clock does seem to bring something like perpetual motion much nearer. — *The Christian Science Monitor.*

Beer and Efficiency

HERE is what Helen Wills Moody has to say about beer — even one drink — in destroying the nice co-ordination required in skilful work:—

"One glass of beer suffices to induce sleep on the tennis court. If the player does not wake up for a stroke or two, he finds that his eye is just enough wobbly so that he does not hit his strokes cleanly. The precision that tennis demands, makes necessary total abstinence—*even from beer.* Of this the tennis player is aware, as well as are competitors in other sports. The person who says one cocktail or one glass of beer does not make any difference in one's eye co-ordination and balance is wrong, at least from a tennis point of view."

Diet and Success

(*Continued from page 7*)

church, he evidently reasoned from effect back to cause. When in giving his experience he said, "I have known of men who prayed for the grace of good temper in vain, until they were advised by their physicians to give up the use of meat." Then he added, "They were not unwise in praying, but, they were wise when to their prayers they added medical advice." What we eat and drink has much to do with what we are, not merely physically, but morally and spiritually. A knowledge of this led Peter to urge his converts to "Add to faith virtue; and to virtue knowledge; and to knowledge temperance; and to temperance patience." Prayer for patience that does not lead one to become more temperate is not answered. We have to be workers together with God. Our part is to remove obstacles and hindrances so that God can do for us what He desires.

The Psychology of Salvation

(*Continued from page 11*)

longer self-centred. There was a new power on the throne of his mind.

Perhaps it has never occurred to you that Zacchæus is only a type of us all. We are all unworthy, sin-bound creatures when placed alongside the standards of heaven. We are all too small to see Jesus. But there is an eminence to which we can all climb; Christians speak reverently of it as the Word. And there, if we wait, He always passes by; and He always looks up; and He always calls. If only we will receive Him, He will come and sup with us. "Behold, I stand at the door, and knock; if any man hear My voice, and open the door, I will come in to him, and will sup with him, and he with Me."

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