

THE
ORIENTAL
WATCHMAN
AND HERALD OF HEALTH



Indian State Railways

"ASHADI EKADASHI" FESTIVAL, PANDHARPUR

*Extent of Kingdom of God, Why Ravage by the
Elements, Fit at Fifty, Hemorrhage from
Nose and Mouth, Diet for Chil-
dren from One to Five*



The pineapple growers of Hawaii last year paid £ 100,000 for paper under which to grow pineapples; 93 per cent of the entire crop is now grown under paper. This enables the growers to raise 80 per cent more fruit than they could otherwise, and also is a great saving in labour. But the Hawaiian pineapple crop is only the beginning. For four years the United States Department of Agriculture has been experimenting with the use of paper, and comparative tests have demonstrated beyond dispute that it is of great value in stimulating plant growth. So without any stretch of the imagination we can see the day, not so far distant, when potatoes, corn, tomatoes, spinach, cotton—in fact, practically all our plants—will be grown under paper.

Twenty thousand people in Soviet Russia have changed their names in the last ten years. Under the Czars, change of name was very difficult in Russia. Personal petition to the emperor was necessary. Many tales are told of those days of citizens anxious to get rid of obnoxious patronymics but often the Czar's advisers turned down the requests. A man whose name meant "six stomachs" was, for instance, told that he could not adopt "Smith" or "Jones" instead, but was given permission to reduce himself to "five stomachs." But now all is different. Any one more than eighteen can change his name by simple registration of the change, provided only that the rights of other individuals or interests of state are not interfered with. In the first three months of the new law 1,200 persons applied for change. Now the number has reached 20,000. Many strange names are chosen, "October," "Proletariat," "Freedom," among them.

American ice cream has become extremely popular in certain coast cities of the far east, notably at Hongkong, China. Shanghai and Manila have developed the same taste to a slightly less degree, while Tokio takes a shipment now and then. Most of the Pacific steamships have installed refrigerator compartments to meet this growing business. The boats that used to be called "mail boats" are now spoken of as "the ice cream boats," and the date of their arrival is advertised days in advance. At Hongkong parties are arranged to take place on the evening of the arrival of an "ice cream ship." So great is the demand that the fresh shipment is all gone in three or four days. Every liner takes tons of this delicacy from such cities as San Francisco and Seattle. In the special packing cases used it will keep in good order for about two months, but it is not allowed to last that long.

The greatest engineering project in the history of the Western World is started. It is the control of the flood waters of the Mississippi and its tributaries in an effort to guarantee the security of millions of Americans and billions of pounds in property. More than a year has passed since the last of the flood waters of 1927 passed into the Gulf of Mexico, leaving in their trail a story of homelessness, misery, suffering, and destruction. Herbert Hoover called the deluge "the greatest peacetime disaster in American history," and he spoke with first-hand knowledge and understanding. Approximately 15,000 men are now at work along the banks of the great river and on certain of its main tributaries. Congress has authorized £65,000,000 to finance the great task of controlling the Mississippi waters. The President has approved the recommendations of the engineers. Levees higher than any ever before contemplated are to be built. There will be floodways to divert the waters, to lessen the pressure, and to reduce the river speeds in the lower valley. A great spillway will safe-

guard the city of New Orleans. Preliminary work incident to the protection of the valleys through which the Arkansas, the St. Francis, the Red, and other great tributaries wend their way to the Mississippi is at last under way.

The social work bureau of the Japanese home affairs ministry has decided upon an ambitious plan to encourage Japanese emigration to Brazil next year, and so has asked an appropriation of £1,000,000. An average of 500 emigrants a month has been leaving for Brazil during the last year. At present Japan's emigrants to South America are given a course of instruction lasting ten days in special quarters at Kobe before they leave. Japanese returned from Brazil lecture to them on social, economic, and other conditions they may expect to find in South America. They are taught to eat with knives and forks instead of chopsticks; they are instructed in the use of farming tools such as they will need, and are even taught to sleep in Western-style beds. As the authorities feel that ten days' training is inadequate, they propose to provide a corps of instructors who will accompany the emigrants on the forty-day voyage to South America to continue instruction. Another project is the establishment of a large colonial museum exhibiting a wide variety of objects of particular interest to prospective emigrants, giving full information about the customs, living conditions, and geography of South America, Korea, Manchuria, and Saghalien. A special library and colonial research institute will be operated in connection with the museum.

In the deserts of Arizona and New Mexico grows a most formidable plant known to botanists as *Esch-no-crispatus*. It is better known, however, by the name of barrel cactus. Like some human beings, it hides under a harsh and uninviting exterior a tender heart. From its pulp is produced a unique and delicious sweet that cannot be duplicated in any other part of the world. The plant protects its appetizing interior from foraging animals—and human beings unarmed with adequate tools—by a growth of thorns that would discourage the most determined marauder. Tinted a sanguinary red, they grow in thick clusters on the apex of the serrated ridges running longitudinally of the plant. Their length is from one to four inches and they are unbelievably tough, wickedly curved, and end in a fish-hook point. A more perfect protection could not have been devised. The aboriginal races of the great Southwest have used this cactus as the foundation of some of their choicest confections since very remote times. Evidence has been discovered in recent archaeological investigations that the Aztecs and even Toltecs crystallized the pulp in honey and used it in some of their religious ceremonies. About thirty years ago a modern method of making the sweet was evolved which would produce uniform results of the high quality demanded by the discriminating taste of the present time. Only young cacti are used and these are almost spherical in form. None over ten inches in diameter are accepted, as the pulp in the larger, and therefore older cacti is sometimes slightly fibrous. Machines remove the murderous thorns and tough outer skin. The pale amber-coloured pulp is then sliced and inspected by holding it between the worker and a bright light. So clear is it that the slightest tendency to stringiness is readily visible. The perfect pieces are then cut into smaller squares and put through a very careful process of crystallization. The finished product is the colour of fine honey, and it possesses a distinctive and very pleasing flavour. All of which goes to show what marvellous results can be obtained from what appears to be the most unlikely materials when knowledge, human ingenuity, and skill join forces.

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To Feel Better Keep the Colon Clean

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

IT is only in recent years that we have begun to learn some of the bad effects of constipation. Many of the major and most of the minor aches and pains, not to mention discomfort of one kind or another, a general malaise, can be traced to sluggish bowels.

Normally, in a state of health, the gate that separates the small intestine, or duodenum, as we might call it, from the colon or large intestine, works in one direction only; that is, to let the waste substance into the large bowel. But chronic constipation, the bane of so many millions in this country, weakens the gate, and after a time it loses its normal tone or strength and swings both ways. This allows the putrefying wastes again to enter the small bowel, thus directly interfering with both the digestion and absorption of food, and also poisoning the blood stream and thereby lowering vitality and opening the door to infection—leading possibly to colitis, appendicitis, inflammation of the gall bladder and other disorders.

But before this, and for a time at least, less serious complaints arise, such as loss of appetite, indigestion, dyspepsia, heartburn, water brash, sour risings, gas production with bloating and gas pressure, palpitation, eructations of gas, bad taste, foul breath, and a large number of aches and pains, sufficient to produce a condition of real misery. Minor or even serious disturbances of the heart may result from the indigestion and poisoning caused by constipation, and give rise to worry, which may actually lead to a nervous breakdown. But it is not necessary to elaborate on the troubles that can be traced to an over-loaded colon, full of putrefaction, for who is not aware of these ills?

The tendency of people suffering from constipation is to turn to drugs for relief. They ask the doctor, "What shall I take?" There are a goodly number of the so-called purgatives, cathartics and laxatives, including metals like mercury, salts of various kinds, and combinations and herbal preparations galore, not to mention numerous laxative

mineral waters. Possibly the most common of all even to-day is that old classical purge, mercury, in some form, such as calomel, blue mass, blue pill, or gray powder. There is a wide belief that mercury also stimulates the liver function, as well as moves the bowels, but this is a complete fallacy. Since the time of ancient Hippocrates, however, mercury has been the sovereign remedy for constipation, with both the medical profession and the laity, in spite of the fact that it is a deadly poison and not infrequently does real harm. Doctor Hurst of London, England, has told us that: "Mercurial purgatives should never be employed in the treatment of chronic constipation, as they produce too much irritation of the



intestinal mucous membrane, and their constant use may result in symptoms of mercurial poisoning." This is true. It explains, in fact, the purging effect of this poisoning drug. The irritating and harmful effect upon the lining membrane of the bowel is so intense that Nature makes every effort to cast out the poison as soon as possible by emptying the colon. But the action is altogether too drastic and dangerous, and the use of this mineral drug should be discouraged.

All cathartics are poisonous in character, and act because of their exciting and irritating effect upon the living cells. Nature recognizes them as dangerous and harmful, and hence seeks to get rid of them as hastily as possible. Their effect is often painful, and there may be a mild colic, with griping, cramping and other evidences of discomfort.

There is some choice, of course, and some are milder and less irritating than others, but the general effect is much the same. Nature recognizes that the body is being poisoned and therefore does its best to get rid of the dangerous poison as a means of protection.

The more common herbal remedies for constipation are aloes, senna, and cascara, but there are many others, mild and strong. Our counsel is to avoid them, one and all, and to rely more

upon a laxative diet, mineral oil and roughage, supplemented by enemata or water injections of the rectum. Just because the colon is sluggish, and harbours a mass of putrefaction and toxins, seems no good reason for adding another poison that may be even more deadly than those already in the colon. The natural thing is to wash out the colon several times until it is clean, and then to regulate the diet and exercise so as to avoid constipation. This has been done successfully hundreds of times, and can always be done to advantage.

Under the ordinary conditions of good health properly selected food, exercise, baths and free water drinking are ample to regulate the bowels and keep them in a clean and healthy state. But there are comparatively few among us who enjoy such favourable conditions, and we must do something for those who suffer from chronic bowel inactivity.

Food has both a mechanical and a chemical action upon the bowels. The residue or remnants of the meal, after most of the nutritive part has been digested and assimilated, has a direct mechanical stimulating effect, so that peristalsis or bowel movement is encouraged and hastened. The cellulose or woody matter of vegetable foods is valuable roughage, and its presence excites the waves of peristalsis (contraction of the intestines) preceded by waves of relaxation. By this means the waste contents of the bowel, which are no longer of any use but on the contrary produce mischief, are moved along the colon to be excreted.

A substantial breakfast made up of laxative foods entering an empty stomach sets up more or less vigorous contractions of the colon, leading to a thorough evacuation soon after breakfast. Further stimulus can be given to the evacuation by drinking one to three or even four glasses of cold water about half an hour before the morning meal. Some recommend warm or hot water, and as many as six to a dozen glasses. But this maximum quantity would be a burden to most stomachs and while probably not actually dangerous, is scarcely necessary.

The cold bath is a good tonic, not only for the body generally, but equally for the bowels. A brief cold douche to the abdomen will often provoke a bowel action. The same is true of alternate hot and cold applications. One of our readers reports that the artificial sun bath by the use of the photophore brought a movement of the bowels. These various applications act by stimulating the bowel muscle into activity, and this is a perfectly natural procedure. Anything that causes distension of the colon, whether it is the presence of much waste substance, or of mineral oil mixed with the waste material, has a direct exciting effect upon the bowel muscle, thus aiding in producing a stool.

In addition to the mechanical effects of roughage, we must not forget the chemical influence of various foods and drinks. Besides being useful because of its bulk, fruit on account of

containing various acids and salts has a direct chemical stimulating effect upon colon activity. Take the citrus fruits: oranges, lemons, grapefruit, kumquats, tangerines, Satsumas, and many other varieties, for example. These fruits not only have a gentle diuretic or stimulating effect upon the kidneys, but also have a laxative effect, largely due to the citric acid they contain. With but few exceptions, fruit may be regarded as Nature's laxative, and if taken freely enough and if the constipation is not too well established or too fixed, it will regulate the bowels, particularly if combined with a laxative diet that includes plenty of greens, such as spinach.

Here we see one of the great advantages of a vegetarian diet, for it alone provides the necessary bulk or roughage which is so necessary in keeping the bowels open.

Within recent years much attention has been given to the laxative effects of highly refined mineral oil, also known as liquid paraffin or liquid petrolatum. It has been definitely proved that no trace of mineral oil is absorbed into the system, but all passes out with the feces. This oil does not have the slightest irritating effect upon the delicate lining membrane of the bowel, but acts solely as a lubricant. The oil adds to the bulk of the stool, which alone gives it value. It is mixed freely and intimately with the feces and keeps them moist and soft, thus preventing the formation of the dry lumps and balls, which are so characteristic of constipation.

There is little or no danger of staining of the clothing by the oil if it is taken in a state of emulsion or, better still, if it is taken with the food or between courses. Some have thought the oil might slow digestion or in some way interfere with digestion or assimilation or both, but this has been proved not to be the case.

If we regard the stomach as the kitchen of the body, where the food is prepared, and the small intestine as the dining room, where the processes of digestion are completed and the prepared food is absorbed into the blood stream and so made available for the use of the body, then we know that the colon or large bowel is the garbage-bin, for there is where the waste material is thrown. This most of all must be kept clean.

As a famous doctor once said about diabetes, the only sure cure is not to have it. Similarly, the only sure cure for constipation is to keep a clean colon by emptying it at least two or three times a day. Like the other organs of the body, the colon is subject to habit, and can be trained to empty itself shortly after each meal. This it seems should be the normal and natural course of Nature. Most people eat three times a day with more or less regularity, but while they are faithful attendants at the table, they fail lamentably in emptying their garbage cans, often putting off the calls of Nature to a more convenient time. This is the beginning of many cases of constipation. It is a case of palpable neglect, the consequences of which must be paid for in chronic ailments and distress often lasting for years.

Why this Ravage by the Elements?

The frequency of these devastating calamities in recent years is causing men to enquire the cause

Asa Oscar Tait

NOT merely for the year 1928, but for year after year one great calamity has followed another, taking a terrible toll of life and property.

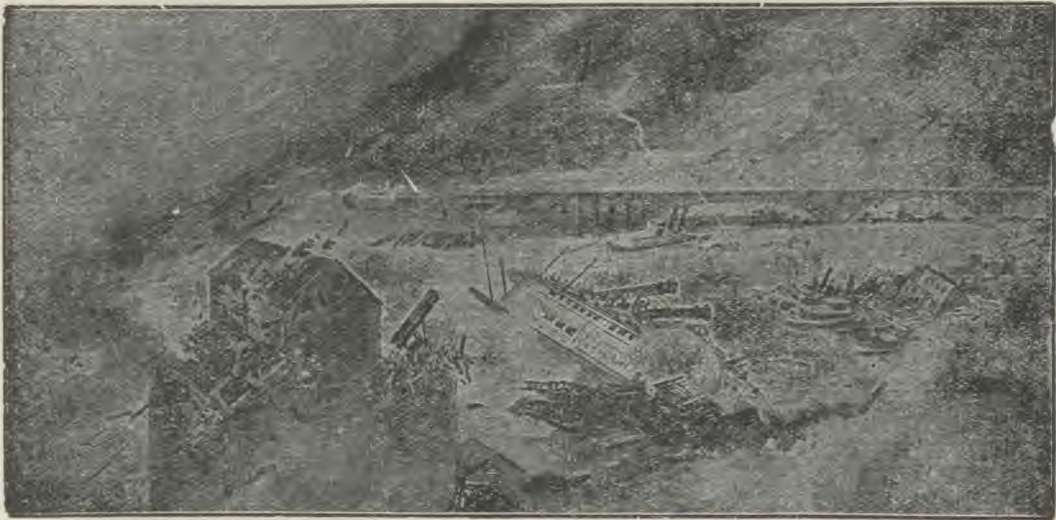
Fourteen years ago the great world war was raging. Some 10,000,000 were killed, with another 30,000,000 crippled, diseased, and destitute, to suffer and die in later years. And, besides this deathlist, the conservative estimates place the property loss at a sum equalling a third of the entire wealth of this great nation.

Then, immediately following the war, influenza raged throughout the world, to strike with death another 20,000,000 human souls, to say nothing of the hundreds of thousands that have fol-

to have been the greatest single calamity since the great Flood of Noah's day. Besides this, the *National Geographic Magazine* has told us that, though not heralded so widely at the time, through lack of facilities of communications, nevertheless the mighty earthquake of interior China in the year 1920 was far more extensive in many respects than the one in Japan.

Porto Rico and other parts of the West Indies, as well as Florida, are threatened with epidemics as a result of insanitary conditions produced by the late storm.

As the mind contemplates all these awful things, there is many an anxious inquiry as to what they signify, and if they will keep on



A flood in the Mississippi River

lowed them to the grave as a result of diseases contracted through that scourge.

The grim-visaged monster then stalked through Eastern Europe, Russia, China, and India, sending to the tomb another 10,000,000 by means of famine, typhus, and other forms of plague.

Coming to the present hour, the great hurricane that just passed through the West Indies and across to Florida and up the Atlantic coast, brings vividly to mind that other almost as destructive a hurricane and storm that swept so much of the same region almost exactly two years before. Then the mind quickly runs to the great Mississippi Flood, of 1927, to say nothing of tornadoes that have left death and destruction year by year in so many parts of the whole world.

Then, if the mind is at all reminiscent or thoughtful, we will call up the never-to-be-forgotten earthquake in Japan, September 1, 1923, said

coming with increasing terror and destructiveness.

To know the real meaning of these things is the most important business of the hour, for it is increasingly obvious that no part of the earth is safe from these agents of death and destruction. If we turn to men, they tell us not to be alarmed, for science and invention will yet render us secure from these death-dealing calamities. But such promises of men are too vague to calm the soul when calamities of such magnitude so rapidly follow one another, spreading untold sorrow and suffering all around us.

An eyewitness tells that he was in beautiful Porto Rico when the storm broke. The Weather Bureau had displayed the storm signals, and this helped many to reach places of supposed security. But nothing that man could do was equal to the power of the furious hurricane. He was powerless before it. He was made to sense the supreme

fact that he must reach out for sources of protection and strength beyond mere human facilities and devisings.

Instinctively we turn from men to the living God, and as we go to the book of God to ask for the significance of these frightful calamities that have so outstripped every precedent of history, we are met with such significant utterances as the one that follows:

"Wail ye; for the day of Jehovah is at hand; as destruction from the Almighty shall it come. Therefore shall all hands be feeble, and every heart of man shall melt: and they shall be dismayed; pangs and sorrows shall take hold of them; they shall be in pain as a woman in travail: they shall look in amazement one at another; their faces shall be faces of flame. Behold, the day of Jeho-

many definite warnings given to earth's inhabitants concerning that supreme hour of our world's history. Therefore every word should be carefully weighed and reverently and reflectively studied.

Let us first note carefully that the wrath of God in this great day is directed specifically and definitely against sin. In making "the land a desolation," the text informs us that the purpose is "to destroy the sinners thereof out of it." And again the word of the text is, "I will punish the world for their evil, and the wicked for their iniquity." The sins that are to receive special punishment are revealed in the sentence, "I will cause the arrogance of the proud to cease, and will lay low the haughtiness of the terrible." Arrogancy, pride, and haughtiness lead on to all the vices and violence of "the terrible."

How forcefully, how plainly, how specifically does the text proclaim that there will be wailing and "destruction" in "the day of Jehovah," so that "all hands" shall "be feeble," and "every heart of man shall melt"! They will be "dismayed," and "pangs and sorrows shall take hold of them." The text goes on to say, "They shall be in pain" and since what has come upon them is the opposite of what they have taught and looked for, they will be filled with such "amazement" that "their faces shall be faces of flame." So terrible is that "day of Jehovah" that it appears even to be "cruel."

But right in the midst of this pronouncement of the awe-inspiring judgments of "the day of Jehovah," observe God's promise: "I will make a man more rare than fine gold, even a man than the pure gold of Ophir." God's judgments are against sin, but the one who turns away from sin will find both solace and protection in this supreme hour.

The apostle in the New Testament speaks thus: "The day of the Lord will come as a thief; in the which the heavens shall pass away with a great noise, and the elements shall be dissolved with fervent heat, and the earth and the works that are therein shall be burned up." 2 Peter 3:10.

The foregoing words from both Isaiah and Peter, which present so vividly the things that actually transpire in "the day of the Lord," are in fullest accord with the words of Jesus as recorded by Luke.

"Then said He unto them, Nation shall rise against nation, and kingdom (Turn to page 20)



Result of the Earthquake, San Francisco

vah cometh," cruel, with wrath and fierce anger; to make the land a desolation, and to destroy the sinners thereof out of it. For the stars of heaven and the constellations thereof shall not give their light; the sun shall be darkened in its going forth, and the moon shall not cause its light to shine. And I will punish the world for their evil, and the wicked for their iniquity; and I will cause the arrogance of the proud to cease, and will lay low the haughtiness of the terrible. I will make a man more rare than fine gold, even a man than the pure gold of Ophir. Therefore I will make the heavens to tremble, and the earth shall be shaken out of its place, in the wrath of Jehovah of hosts, and in the day of His fierce anger." Isaiah 13:6-13.

The Bible, in both the New Testament and the Old, is filled with just such intensely solemn warnings as the foregoing concerning "the day of Jehovah." This quotation from Isaiah is not an obscure, isolated text. It is one from among the

Is Rickets a Normal Condition

By O. Swanson

IT has been estimated that more than 90 per cent of the children in large cities suffer from rickets. The intimate association of rickets with growth, its early appearance regardless of season, and its universality raises the question whether this slight degree of rickets must not be considered normal.

In 1650 Francis Glisson published the first adequate description of rickets. The condition had appeared in the counties of Dorset and Somerset in England about thirty years previous to his writing and had been called rickets by the country people. They derived this word from the old English verb "wrikken," which means to bend or to twist. Even though the name was expressive of the bow-leg and other deformities that follow rickets, the term did not satisfy Glisson. He christened it "rachitis," a word that he derived from the Greek words for spinal diseases. Rachitis is the name that many doctors use for the disease as it is seen to-day.

As a matter of fact rickets was really not a new disease in the seventh century. We know that children must have had it in England before the Romans came. The skull of a child who lived in the bronze age shows definite signs of rickets.

Rickets is a nutritional disease. The specific failure of nutrition has to do with a deficiency of calcium, or lime salts, and phosphorus. It cannot always be said, however, that children who suffer from rickets do not receive a proper amount of these substances in their food, for in some cases it is known that the food of children suffering from rickets contains entirely adequate amounts of these substances, and in other cases it is found that in diets in which calcium and phosphorus were not originally present in sufficient quantities the addition of sufficient amounts of these salts to the food does not result in the checking of the disease. There must, therefore, be some other factor or factors of diet and hygiene involved, and the evidence gathered from experiments that have been carried on in the last few years points to a certain group of nutritional substances, the vitamins, as being the ones involved. Vitamin D is the regulator of the calcium and phosphorus balance.

As the result of an inability properly to use calcium and phosphorus, the bones of the growing child become soft, and when this happens they bend easily and are readily deformed, especially when the bones of the growing child become soft, and when this happens they bend easily and are readily deformed, especially when the bones have to support weight. It is, of course, the deposition of calcium salts that makes bones rigid and hard.

Rickets may affect all the bones of the skeleton, but usually the bones involved are the long bones, such as those in the arms and legs. The

ribs and skull are also commonly affected, and the teeth. When calcium salts fail to be deposited and the bones become softer and more pliable, any influence that exerts pressure, such as the force of the body weight or muscular activity, will gradually bring about bending and deformity. This is seen in bow-legs sometimes of extreme degree or in deformity of the chest where the ribs join the breast bone.

Sometimes the bones become so soft that they break, and in certain types of advanced and severe rickets it becomes necessary to put children to bed in plaster casts in order to prevent broken bones or serious deformities due to unusual degrees of bending. Often rickets cause softening of the teeth, leading to decay of existing teeth and tending to make the teeth of the second dentition faulty in structure.

Children suffering from rickets become pale. That this pallor is often a sign of anemia is shown by the fact that the number of red blood cells and their colouring matter, hemoglobin, is also diminished. Rickets is not usually accompanied by loss of weight. Children suffering from this disease often appear well nourished although their muscles and skin may feel flabby. If any two groups of infants show the need of early antirachitic treatment more than others, they are the large, rapidly growing, breast-fed infants and premature babies.

Children suffering from rickets rarely acquire it before the second month or after the fourth year. This is the period of high susceptibility to rickets. Rickets has been found in the first month but never at birth.

Children who suffer from rickets are apt to be delicate children. They are likely to develop certain forms of respiratory diseases such as colds, bronchitis, pneumonia and also tuberculosis. In fact, such diseases, when they complicate the underlying conditions of rickets, probably produce more fatal outcomes than does the actual rickets itself.

It has been thought that rickets was a relatively rare disease, common only among the lower classes. But this is not the case. In large and more or less congested communities the rich as well as the poor suffer from this affliction. Investigations carried on in New Haven, Connecticut, have shown that a slight degree of early rickets is well nigh universal in northern climates. Relatively fewer cases of rickets are found in rural communities than in cities. The probable explanation of this fact lends directly to the consideration of one of the important factors concerned in the treatment of rickets. This factor is sunlight or even ultraviolet rays artificially produced. If the antirachitic dietary requirements are met and

if the uncovered skin is properly exposed to the direct rays of the sun, a great improvement is usually obtainable in the condition of the child suffering from rickets: many times a cure results. It certainly would seem that ample exposure to the sun's rays does much to prevent the development of rickets, because it seems that this disease is practically unknown in the tropical countries where the sun's rays are more intense.

The well known fact that negroes living in the temperate zones are likely to develop rickets is interesting, particularly in view of the fact that when treatment by sunlight is applied to large numbers of children of any community, the members of the negro race in contrast to those of the white race, show a lesser degree of improvement and require correspondingly larger doses of light to bring about beneficial results. The pigment of their skin is more resistant to the effect of rays of light than the less pigmented skin of the white races. The stronger rays of the sun in tropical climates will, however, protect the possessor of a black skin. A few minutes' exposure to the ultraviolet rays of the sun increases almost twofold the phosphorus in the baby's blood in a few weeks' time; it also increases the iron content.

Not only does sunlight have an effect on the body in preventing rickets, but foods exposed to the sunlight have an antirachitic potency. Foods that contain a small amount of the antirachitic vitamin develop considerable quantities of it under exposure to the sun. The calcium and phosphorus content of milk is said to be greater in pasture-fed cows than in those that have been fed indoors.

Cod liver oil and ultraviolet rays exert a great influence in the cure of rickets. The beneficial results of this oil have been attributed to the fact that it contains the fat soluble vitamin D. Both cod liver oil, which contains vitamin D, and rays from the sun are capable of altering the improper balance between calcium and phosphorus that exist in rachitic children. This improper balance of calcium and phosphorus may be a deficiency of either one or the other or a deficiency of both substances.

Various health agencies in all the larger centres of population are struggling to educate the young mother in the proper care of her children.

It would seem to be a simple procedure to safeguard the children of to-day from rickets since sunlight and animal fat are fairly easily obtained. But as a result of ignorance, indifference, unwillingness to follow advice, and the great difficulty of getting a proper amount of sunlight, the residents of the poor tenement districts present a great problem.

With the abolition of extreme overcrowding in the poorer districts of large cities, and with the thorough spread of information concerning the ways of preventing rickets, this disease should become a rarity rather than a condition affecting the great majority of children.

"Fit at Fifty"

"GROW old along with me"—so sang the cheerful Browning to the middle-aged Victorians.

And to-day, an optimistic medical journalist, who writes for the *Times Trade Engineering Supplement*, says, "It is a curious period, this time of the shortening vista, in which a man begins to get on friendly terms with the latter end of his life. It may, in fact, be one of the most productive and comfortable periods of life. For 'low visibility,' as the weather experts say, has the advantage of making us keep our eyes on our immediate surroundings, while the eyes of a fool are in the ends of the earth.' There is no time now for illusions or distances. There are no distances. The matter in hand is also the horizon."

That great psychologist, Stanley Hall, who in his prime, when looking back upon his youth, wrote the standard book "Adolescence," also wrote, during his closing years, its sequel, "Senescence." Students of Hall, and others who have read anything of the modern school of genetic psychology, will appreciate the significance of the above quotation from the *Times* article.

Those who do not believe that healthy old age is full of life and of the joy of living are invited to consider how great a part in the world of business old men are playing at the present day.

If the "thoughts of youth are long, long thoughts," the long thoughts of maturity are swift. They are concerned with the here and the now. That which remains to be done must be done quickly. It is now or never.

There are men still in their prime, who have regrets because of their lost youth. Unfortunately these men have not yet realized that by growing older they have grown in capacity. As our medical authors say, "It would be well if all those who are growing old would realize this capacity of age. For there are men who lose heart when their youth passes—in a physical as well as in a moral sense. Their lot is the most wretched that it is possible to imagine.

"These unfortunates have their eyes set on the distance. They are at war with themselves and with Providence. They are living for the years when the years have rolled away and left them forever."

Owing to a lower birth rate, lessened infantile mortality, more healthful conditions at school and improved hygiene generally, we are becoming a longer lived race. There are more old people alive now than ever. Further, more of the world's work is being done by old men and old women than at any time in history, and the cry "too old at forty" has now given place to the slogan, "fit at fifty."

Do not attempt to increase the palatability of foods by the addition of commercial vegetarian meat flavourings, says the author of "Chronic Colitis." He declares that these "are in nearly all cases yeast derivatives," and "are quite as injurious and productive of gout as the extractives of meat."

Gethsemane and Calvary

By George F. Enoch

HIM who knew no sin, He made to be sin on our behalf; that we might become the righteousness of God in Him." 2 Cor. 4:21. A. R. V.

In these words the apostle Paul has stated the inner meaning of Gethsemane and Calvary. It is here that each member of the human family really meets Jesus, the Son of God, and not at His virgin birth, although that was necessary, else He could not have suffered and died for us. The mystery of the agony of Jesus is a revelation of the wisdom of God as He made provision for sinful man to be justified and cleansed from the poison of sin and made fit for a home in heaven. It is here that the Son of God actually takes the sinner's place and becomes whatever the sinner may be.

In meditating on the meaning of this experience of Jesus we are in the presence of processes that transcend human comprehension, for they are the out-working of the unfathomable depths of the love and wisdom of God as He solves the problem of how to destroy sin and at the same time save the sinner. To accomplish this He made Jesus, His Son, who knew no sin, to actually be sin for us, and on the cross "to bear in His own body" our sins until His very life was crushed, in order that "whosoever believeth in Him should not perish, but have everlasting life."

As we approach the Garden of Gethsemane with Jesus on the night of His betrayal, we find His heart heavy under a load unlike any other experience of His life. "The hour of darkness" has now come. The process by which He is "to be made sin in our behalf" has begun. Jesus began to be greatly amazed and sore troubled. And He said unto them, My soul is exceedingly sorrowful even unto death; abide ye here and watch." Mark 14:33,34.

Until this night the light of the Father's presence had ever been with Jesus. Now, as He takes man's place, God is withdrawing this light of His presence. As the darkness of separation

from God envelops His soul, Jesus is terrified. We will never know all that He suffered. It was no light thing to take man's place, to identify Himself with the sin-laden race and bear in His own body the consequences of their sin.

The mystic cup that was placed to the lips of Jesus at the beginning of that night of agony was a cup poisoned with the virus of our sins. The "powers of darkness" concentrated in that Garden that night, for it was the beginning of the decisive battle of the age-long controversy between the forces of good and evil. Could Satan but conquer here, his kingdom would be established; should he lose here, evil would be conquered and it would be but a little while until it would be eradicated from the universe.

Satan pressed home to the heart of Jesus every argument in his armoury. He tried to make Him believe that the separation from God was to be eternal; he pointed to the apparent uselessness of the terrible sacrifice—the people whom God had separated from the nations and had preserved for fifteen centuries for the purpose of receiving Him were to hang Him on the cross—the very disciples whom He had chosen were to forsake Him

in His hour of anguish—one was to deny Him with cursing, another was to betray Him—"Why not," said Satan, "wipe the bloody sweat from your brow and return to heaven. They are not worth all this suffering."

Thrice the human heart of Jesus shrank from the supreme sacrifice. But there arose before Him the vision of the lost race, perishing helplessly in its sins with no arm to save. He only, in all the universe could bring salvation. His mind was made up; He would drink the cup. As He received in His own body the virus of man's sin, He was seized with superhuman agony, and fell fainting to the ground. "And being in an agony He prayed more earnestly; and His sweat became as it were great drops of blood falling down to the ground." Luke 22:44. No word of human sympathy strengthened Him in that dark hour. His disciples were sleeping heedless of the issues that were being worked out as that midnight hour settled over Gethsemane.

But heaven was not unmindful of the inner meaning of the hours of agony. Another has well



In the Garden of Gethsemane

described the scene: "As the Father's presence was withdrawn they (the angels of heaven) saw Him sorrowful with a bitterness of sorrow exceeding that of the last great struggle with death. The bloody sweat was forced from His pores, and fell in drops upon the ground. Thrice the prayer for deliverance was wrung from His lips. Heaven could no longer endure the sight, and a messenger of comfort was sent to the Son of God."

"The angel came not to take the cup from Christ's hand, but to strengthen Him to drink it, with the assurance of the Father's love. He came to give power to the divine-human suppliant.... He told Him that He would see of the travail of His soul and be satisfied, for He would see a multitude of the human race eternally saved."

"Christ's agony did not cease, but His depression and discouragement left Him. The storm had no wise abated, but He who was its object was strengthened to meet its fury. He came forth calm and serene. A heavenly peace rested on His blood-stained face. He had borne that which no human being could ever bear; for He had tasted the sufferings of death for every man." *"Desire of Ages," pp. 760, 693, 694.*

As we lift up the cross, where Jesus "tasted death for every man," before a lost world let us not forget the importance of Gethsemane where He "tasted the sufferings of death for every man."

We have not the space to follow Jesus through all the night and day following—through the terrible experiences of the betrayal by one of His own disciples to the preliminary investigations before Annas the revered father-in-law of the High Priest, and before Caiaphas the High Priest; through the first trial before the Sanhedrin at night (but whose decree was legal only when passed between sunrise and sunset); then, therefore, to the second trial before the Sanhedrin by day; afterwards to Pilate, then to Herod, and back to Pilate once again, and then finally off to Calvary's hill to be crucified. During all these sad heart-rending experiences, and the ribald mockery of the godless soldiers, and the bitterer persecution of the religious leaders of the nation, Jesus was bearing in His own body the virus of the poison of the cup which He had drunk in Gethsemane.

And now we stand before the cross. Here each one must stand by himself alone. Upread before me on the cruel cross I see my Saviour being made sin for me. It is the weight of my

sins that is causing the superhuman anguish of the divine-human sufferer. As He sees me standing there His look is not one of reproach, but of love inexpressible. As the weight of my sins press heavier and heavier on His heart, He says for me, "Father, forgive him, he knows not what he does." And then in the extreme physical agony which has reached every fibre of His being, in the wracking torture which He has endured all through those weary hours, He says simply, "I thirst." There is neither appeal for mercy nor complaint in the cry, but a simple statement of the indescribable physical agony.

But we have not yet plumbed the depths of His sufferings. The mental anguish is now expressed in the cry, "My God, My God, Why hast Thou forsaken me?" Human hearts can never fathom the full meaning of the terrible mental

anguish compressed by Jesus, as He turned His face towards God, into that mysterious "Why?" He was meeting the final issue of sin, that is to be utterly God-forsaken. In the sinner's stead He is being abandoned by God. None but the finally lost will ever know the fullness of what this means. No one in this present life has ever been entirely forsaken of God. Some few have had a preliminary glimpse into the awful depths, but God does not finally forsake anyone here.

But Jesus knew. He put Himself in man's place and "tasted death for every man." Behold

Him, guilty sinner, suffering in your stead. See the mists that rise from the river of death darkening His consciousness as in the incomprehensible agony of being forsaken of God He cries "Why?" Experiencing the deepest profundities of sorrow the cry is wrung from His lips ere He is swallowed up in the awful silence of death—not of the death which we know, a death which by this very act of Jesus has been transmuted into a sleep, but into that death which is the final issue of sin, that death which is the harvest of sin, final abandonment by God.

Here is the real atonement for man's sin. This is the vicarious death; this is the expiation of sin. Let us at this season emphasize this anguish rather than the mere physical pain caused by the nails through hands and feet, or by the crown of thorns that pressed His brow. The cross was but the symbol of man's rejection of Him, it was not the cause of His death. Had men not hung Him on that cross, He would have died just the same for the sins of the world. (Turn to page 26)



On the Cross

Diet for Children From One to Five

By Dr. John H. Kellogg



HE physiological needs of a child are practically the same as those of adults, with this exception, however—which must be constantly kept in mind—that the child is a developing organism, that its body is not yet formed but is growing rapidly and hence requires not only special attention to the kinds and quality of food eaten but also special consideration as to quantity.

A child requires a much larger intake of food in proportion to its weight than does an adult. Between the ages of two months and five years, a child requires, in fact, practically double as much food in proportion to its weight as does an adult; that is, a boy of seven weighing fifty pounds requires as much food as an adult weighing one hundred pounds. And after the ages of ten or twelve, active children require practically as much food as do adults who are not engaged in hard, muscular work.

On the other hand, the stomach of a child of ten years is scarcely half the size of the average adult, and having practically the same amount of work to do as has the adult stomach, it may easily be overtaxed either by overeating or by the use of foods difficult of digestion.

In general, it may be said that as regards the kind of food suitable for children of three years of age and afterwards, they may be permitted to eat anything that is really suitable for their parents. The presence of teeth indicates the suitability of foods requiring mastication and if only such foods are eaten as are perfectly adapted to meeting the biologic or physiologic requirements of the human body, there is no reason why a child may not eat anything that his parents eat, although as will be noted later, there are certain important particulars in which the dietetic requirements of the child are essentially different from those of the adult, to which careful attention must be given in the preparation of bills of fare for growing children, especially as regards the need of greater quantities of lime and iron.

While it is true that a biologic diet is safe and wholesome for children that have acquired teeth, it is important that attention should be called to the fact that many articles that usually enter into the daily bill of fare of adults, but that are better excluded because of their unwholesomeness, are particularly unwholesome for children, and hence must be rigorously excluded from their dietaries. Among articles of this sort may be mentioned particularly condiments of all sorts. Mustard, pepper, peppercorn, cayenne, horseradish, cloves, even nutmeg, and vinegar and pickles of every sort, while unwholesome for adults, are pernicious and even positively dangerous for young children. None of the substances named have any food value whatever. They supply no body

need. They are instead poisons, which injure the stomach and work various mischiefs in the body.

A properly trained child has no relish for any of the articles mentioned above. They are unnatural substances, an appetite for which is cultivated and must be regarded as a perverted taste. Hot condiments of all sorts over-excite the stomach, wear out the glands that secrete the gastric juice, and do other mischiefs. Even salt should be used sparingly.

The use of tea and coffee is another practice that works great injury to the growing child. The caffeine of tea and coffee, as everyone knows, tends to wakefulness. The child needs a great amount of sleep. Ten or twelve hours out of every twenty-four, or even more in the case of very young children, are required, to afford the body opportunity for tissue building—bones, muscles, nerves and other tissues—a process that proceeds rapidly only during sleep. Plants grow much faster at night than in the daytime and the same is true of children. The use of tea or coffee tends to lessen the hours of sleep through its effect upon the nervous system and thus lessens the rate of growth and dwarfs the child.

The idea that meat is highly essential for children has in recent years been widely propagated by various unreliable syndicate writers and, unfortunately, has sometimes been countenanced by physicians who have not given special study to dietetics to qualify them in giving expert advice upon the subject. The studies of Professor Sherman of Columbia University, of Professor McCollum of Johns Hopkins, and of numerous other authorities who have conducted nutrition researches in laboratories especially equipped for the purpose, have shown most conclusively that meat is not essential for the feeding of children. In fact, the very opposite is the truth. Every food essential that can be secured by the use of meat is supplied by milk, and in a form far better adapted for the use of the child than in meat. Meat on the other hand, is highly lacking in certain elements that are absolutely essential for children. This is particularly true of the salts essential for building up not only the bones but other of the body tissues.

But the greatest objection to the use of meat for children is to be found in the fact that it is practically always swarming with bacteria of the most pernicious sort. Fresh meat, fish, chicken, fresh oysters, meats in all forms in fact, are fairly swarming with putrefactive bacteria.

In the process of slaughtering animals, their tissues become thoroughly infected with the manure germs that are found upon their bodies. These bacteria rapidly penetrate the tissues, and within a few hours after death the carcass of the animal is everywhere swarming with these filthy intestinal bacteria which are not destroyed by

cooking. When flesh is eaten, these parasites infect the intestine, particularly the colon, and cause diarrhoea, appendicitis and various other infections.

Feeding meat to young children is not only absolutely unnecessary but is one of the most certain methods of laying the foundation for life-long misery from constipation, auto-intoxication and various disorders that grow out of these conditions.

Every mother should know that in order to supply a child with the things essential for its nutrition, foods must be taken as nearly as possible in their natural state. Unfortunately, many foods that come to our tables are denatured by the manufacturers of breakfast foods and other staples. A child fed upon bread and milk, a dish that is perhaps more generally used than any other in the feeding of children, is certain to be poorly developed, to suffer from poverty of blood, constipation and possibly more serious maladies. A bread and milk diet, as well as a bread and meat diet, is a most incomplete bill of fare. Food to be suited to the needs of children must be particularly rich in vitamins, lime and iron, and children require at least double as much of those food essentials as do adults. They are developing organisms and require not simply a sufficient amount of new material to replace that which has been worn out and lost from the body, so-called "repair material," but require a large amount of building material out of which to construct the framework of the body, the bones and various soft parts attached thereto.

There are few foods that are richly supplied with all three of the food essentials mentioned, vitamins, lime and iron. It is only by a proper combination of foodstuffs that the necessary supply of these elements can be insured to the child. Many common foods are greatly deficient in all three. This is especially true of many breakfast foods.

Of the various cereals, oatmeal is one of the best. It contains a considerable amount of lime and some iron, although it is deficient in vitamins. By the addition of milk, oatmeal becomes very nearly a perfect food, for milk is rich in lime, although deficient in iron. A diet of white bread and milk, or of rice, rice flakes, or corn flakes, would be deficient because of the almost entire absence of iron. A breakfast food ought to supply, with the addition of milk, all the elements required for complete nutrition and in such abundance as to make good the deficiency of other foodstuffs.

A very excellent breakfast food for children may be prepared by the addition of sterilized, cooked bran to oatmeal. The two may be combined in equal parts by measure. Cooking should not be continued longer than ten or fifteen minutes. Longer cooking lessens the food value.

Ordinary cornmeal is deficient in lime and iron, but may be improved by the addition of wheat bran. The coarser the bran the better. Bran not only adds lime and iron, but also supplies the necessary intestinal stimulant. It should be remembered that bran is not irritating, but is simply titillating; that is, it stimulates the intestine by its presence, but not by irritation. It

may be used by the youngest children without injury and in liberal quantities. A law prohibiting the manufacture and sale of fine flour bread and similar denatured products, would be of great service as a health-promoting measure.

Fresh vegetables are of great service as a source of vitamins and salts, and should be used freely in the feeding of children. The Irish potato in particular, is a food of great value for children, tending to prevent acidosis, which is likely to develop from a too exclusive diet of cereals and milk. When meats are given to children, acidosis is still more likely to develop, with constipation and auto-intoxication. The potato is of almost equal value with bread as a nutrient, though of course it must be used in larger quantity. Baked potatoes are easily digestible and, combined with milk or buttermilk, they supply all the elements required for good nutrition, with the exception of food iron and roughage. These should be supplied through the free use of bran and greens.

Dates, raisins and figs should be used liberally instead of cane sugar and cakes. Sweets might well be excluded altogether. Children are well satisfied with raisins or dates, which are in every way preferable to sweets, not only because they are less intensely sweet, but because they contain vitamins, lime and iron, all of which are lacking in sweets. Raisins contain more iron than do ordinary meats, and dates are richer in iron than the average beefsteak. Honey is wholesome.

Cane sugar could be banished from our tables with advantage. The practice of eating sugar freely on cereals is highly objectionable. For all table purposes it is better to use treacle, maple syrup, or maple sugar than the fine crystalline product usually used, for the reason that these sweet products contain the lime and iron that are excluded in the process of crystallization and purification to which fine sugars are subjected. In recent years, malt sugars have been produced that may be substituted with great benefit for the cane sugar and corn syrups that are now in general use. Malt sugar is not only rich in lime and iron but also in vitamin B, and it is natural sugar that may be taken by children without injury. The slightly laxative effects of malt sugar are also of service in many cases.

THERE is one general principle in dietetics that is sound in both theory and practice. This is the principle of simplicity of meals. There is no hard and fast rule as to how many food ingredients should be combined in making prepared dishes or how many dishes or prepared food articles should be included in a meal. But this is undoubtedly true, that much digestive disorder comes from the too great complication in cookery and in meals. So if in doubt use the simpler dish and the simpler meal. Eat bread and milk and eggs as separate items in one meal rather than putting flour and milk and eggs and sugar and fat all into a cake. Eat your free fats as butter on bread or oil on salad rather than frying other foods in fat.

A Solution of the Evolution Riddle

A Scientific Defence of the Doctrine of Creation

By Prof. George McCready Price, M.A.

WE are now confronted with what are called the Tertiary beds, which were formerly regarded as comparatively shallow or superficial deposits, but which are now known to be very extensively developed in Western America and in other regions far from the centres of Western Europe where geology originated. They reveal to us semi-tropical conditions of climate as having prevailed away within the Arctic regions, and they also show us floras and faunas all over the world vastly different from those now prevailing. These remarkable conditions would seem to blend very easily with the "warmer" periods of the so-called Glacial Age; but they would be even better understood if we should adopt Howorth's catastrophic interpretation of the close of that period. For huge elephants and mastodons, sabre-tooth tigers and camels, rhinoceroses, tapirs, glyptodons, and megatheriums roamed around in great numbers over North America, to mention only one part of the world, with palms, ginkgos, magnolias, and grape vines growing away within the Arctic circle; and so far as we can determine these all came to an end *locally*, at least, in some mysterious way, perhaps in some sudden way.

The Tertiary deposits throughout the world are elaborately subdivided into a great many successive ages, and a very precise chronology has been worked out for them, so that the textbooks inform us very positively of the exact order in which all these deposits were formed. But again we demand to be shown the real reasons for this alleged chronological order. What solid scientific reasons are given to encourage our confidence in this as a true historical order?

In 1810, Cuvier and Brongniart first described the fossils from the beds in the vicinity of Paris. Both the shells and the mammalian bones were decided to be quite different from their nearest modern representatives. Shortly afterwards, the strata around London and in Hampshire were studied, and were found to contain fossils much like those from around Paris. Some deposits on the flanks of the Apennines, in Italy, were found to contain fossils of a strikingly different aspect; while about 1825 some others found in the south of France were thought to be *intermediate* in character between those of Paris and those of the Apennines. In some isolated instances beds thought to represent these scattered localities were found in actual super-position; though of course it would be out of the question to try to trace any stratigraphic continuity between these widely separated deposits.

After laborious study, Lyell decided that about 3½ per cent of the shell found in the London-Paris beds were like living species. Those in the south

of France contained about 17 per cent which were like living ones. Those in the Sub-Apennines showed from 35 to 50 per cent of recent or living species. Lyell himself had found some strata in Sicily which had fossils with from 90 to 95 per cent like those alive to-day.

Accordingly, armed with his *a priori* theory of a uniform rate of extinction for all these shell-fish, Lyell was ready with his classification, that is, with a chronology. He said that the London-Paris beds were the oldest; he named them *Eocene*. Those in the south of France were next; and he called them *Miocene*. The Sub-Apennines received the name *Pliocene*; while those in Sicily became known as *Pleistocene*, and in our day are made equivalent to the Post-Tertiary, or Glacial. Slight adjustments in the percentages have since been made for these subdivisions; but the method of classifying the Tertiary beds all over the world remains substantially as first taught by Lyell. And of course, long before this, hundreds of what are regarded as key fossils, or *index fossils*, have been found and described; so that a student who finds a new deposit in Australia, or Greenland, or Ceylon, or Russia can, if he is fortunate enough to hit upon some good index fossils in it, immediately assign the beds to their proper pigeonhole, Eocene, Miocene, or Pliocene, in the general chronological scheme. If two widely separated deposits are found, each with good index fossils, the finder can immediately tell which is the older and which is the younger.

This is charmingly simple; and hundreds of industrious government officials in all the civilized countries have long since classified off in this way the rocks known as Tertiary which are found in the various parts of the world. The other geological deposits, classed as still older than the Tertiary, are assigned their respective places in the long-drawn-out time-scale by essentially the same methods; so that a well trained geologist, if shown a few typical or index fossils from any part of the globe, can with little difficulty assign the strata which they represent to their appropriate places in the great geological ladder. In other words, he can tell in what age of the world these deposits were laid down.

If we look at the geological deposits of the world in a broad way, we see that they consist of a great number of local floras and faunas, which were buried at some time or times in the past. We are not now at all concerned with the way in which these deposits were made, whether in the quiet manner of Lyell's uniformity, or in the more abrupt manner of catastrophism. We are concerned only with the *relative chronology* which they represent. How reliable or scientifically certain is this relative chronology? Are we reasonably sure that this

chronology is founded on methods as reliable as those used in chemistry, physics, or astronomy? Or may it turn out that this relative order is *subjective* rather than *objective* in character, and thus may require material revision?

If we look at Lyell's plan of classifying the Tertiary beds according to the percentage of living or extinct mollusca which they contain, we see immediately that this plan assumes a dead-level of uniformity, and denies most positively (by implication) that any such cataclysm as that pictured by Howorth has ever happened at all. If any such cataclysm has occurred, accompanied as it may have been by that sudden change of climate which put the elephants found in Siberia in permanent cold storage, it can be nothing but child's play to classify off the shellfish found in the deposits thus made, according to the percentage of living and extinct species. For if all the living species found among them represent merely the lucky survivors of some strange extermination in which all the others perished, *what chronological value can a percentage represent?*

I once read a story of a railway wreck, in which the actuary representing the railway company which was liable for damages, attempted to classify the three dozen or more bodies, *as to the order in which they died*, according to the probable number of surviving relatives which each victim had left behind. Many of them were foreigners, with no relatives in the country. The accident had occurred in California, while the train had come from New York; and the ingenious actuary denied that the people had all died together in the accident; they had been dying all along the road, a few at a time, ever since they left the Atlantic coast.

I am not at all sure that Lyell's method is any more scientific or has any more finality about it than this scheme. The percentage of the surviving mollusca which may have had to run the gauntlet of the cataclysm described by Sir Henry Howorth, would hardly be called a scientific basis on which to make a real historical order of the beds within the area involved. Clearly it is not the third decimal point with which we are here dealing, it is one of the integers.

Shall we continue to go further backward along the geological time-scale? This is a somewhat discouraging beginning. Will not the ghost of this Howorthian cataclysm be always looking over our shoulder, as we try to tabulate the other geological deposits off in a supposed chronological order? What if the time-distinctions between the subdivisions of the Mesozoic and of the Paleozoic cannot be depended upon with any more confidence than can those of the Tertiary?

The Lyellian geologists tell us that they have worked out the relative order in which the fossils occur in England, Germany, and in New York State, and that when they go to other countries they always find the fossils occurring in the same relative order as they have been accustomed to. When pressed to explain what this may really mean, they always deny that they still retain any idea of the old onion-coat theory, even in its bio-

logical form. They merely have this relative order of the fossils as shown in one country for a sort of rule of thumb to be applied to the strata of a new country; and they have found this rule to work so well in so many instances, that they have acquired profound confidence in it, and believe this relative order to represent a genuine world-order of the different forms of life.

Long ago, Herbert Spencer discussed this matter in his essay entitled "Illogical Geology;" and declared that in reality Lyell's method was only a "transcendental form" of the notorious onion-coat theory of the Wernerian school—just the old method under a new name. T. H. Huxley likewise pointed out that all geology can actually prove is "local order of succession;" and that "the moment the geologist has to deal with large areas, or with completely separated deposits," the "*wischief*," as he calls it, of confounding things proved with other things "for which there is not a shadow of proof," becomes incalculable, and proves the constant source of gratuitous speculations. The present writer has also discussed this phase of the matter in various publications.

Any careful examination of this subject cannot fail to impress us with the fact that geology is still in exactly the same situation logically as it was when Huxley pronounced this memorable verdict:

"In the present condition of our knowledge and of our methods, one verdict, 'not proven, and not provable,' must be recorded against all the grand hypotheses of the paleontologist respecting the general succession of life on the globe."

Two facts need to be born in mind in this connexion:

1. The strictly limited or local areal extent of every set of fossiliferous beds, as alluded to above by Huxley. For it is only in extremely rare instances that any set of beds can be physically traced out further than a very few miles; and any objective correlation of the beds of one country with those of another is completely out of the question.

2. The fewness of the total formations actually found in superposition or vertical relationship in any specific locality. Never do we find even a third or a quarter of the total number of the formations of the geological series in any one vertical section. Seldom do we find more than small *parts* of two or three *systems*, like the Cambrian, Triassic, or Tertiary, occurring together in any one place. I am not aware that *all* or *any one* of these systems is ever thus found together in any locality.

These facts help us to see the purely *constructive* or artificial character of the geological "time-table" as a whole. Even if we never should find any localities where the relative order of succession of the fossils is *reversed*, the very most that sober science could say for this geological "time-table" would be that it is a plausible, but quite inconclusive, scheme of the order in which life has occurred on the globe, *if organic evolution be true*. For it is as clear as sunlight that the geological arrangement of the fossils *does not prove an* evolutionary development, *it assumes it*.

Beside All Waters

By May Carr Hanley

MRS. Granger laid Baby Marjory in her little bed, and tiptoed softly out of the house. "I must hoe my potatoes," she said to little Andrew, playing by the doorway.

"Me hoe too," he echoed.

"Yes, you may help mother. Aren't they growing though! It will be such a treat when we can have new potatoes. It is so dreadfully hot to-day we can not work very long."

"Cloud coming, mother," and Andrew tugged at his mother's skirts.

She pushed back her sunbonnet and looked where his chubby finger was pointing.

"Strange," she murmured to herself. "I never saw anything like that before." Darkness was rapidly descending upon them.

"A cyclone!" It struck terror to her heart, and her first thought was of the sleeping babe in the house. She grasped Andrew by the hand, and began to run.

Bang, bang, bang! "Could that be hail? No—it's—grasshoppers!" gasped Mrs. Granger as she closed the doors and windows of the cottage. Rapid work was necessary, for they were penetrating every crack and hole. She groped from one window to the other in the semidarkness, frightened and awed. Peering out, she saw the ground covered with the hopping, squirming mass, and they were banked up high against the house and barn like snow in a heavy storm.

"What has happened to this old world? My potatoes and my garden will be ruined! Oh, what shall we live on? Maybe I can save a few plants. Listen, Andrew, to mother. I am going out to cover up the plants. You stay right here with baby sister, won't you? Keep the door closed, so the grasshoppers can't get in."

She shrank from contact with the mass of insects that met her as she opened the door. She chuckled to herself, "This is no time to decide whether I shall go or not. The door is open, and out I go."

She determined to do her best to save their food. She found boxes and carried them to the garden, crunching grasshoppers at every step, and pushing and clawing them away from the plants, she covered as many as she could. The hungry insects crept upon her, under her bonnet,—tightly tied close to her head in a vain attempt to keep them out,—and into her hair. Still she worked frantically, and did not hear her husband's approach until he stood beside her.

"I'm sorry for you, Lizzie," he said gently; "come in; you can do nothing against this horde."

"Oh," she sobbed, exhausted and excited, "faith without works is dead. I'll work as long as—" Her husband lost no time in carrying her into the house. "I think you have," he remarked laconically.

When the grasshoppers began to leave to conquer new fields, there was not a spear of grass, a

leaf on a tree, or one speck of green visible in the whole country.

A day of fasting and prayer had been appointed by the distressed community. Mrs. Granger decided to go. Andrew walked by her side, but he did not like the feeling of the crunching grasshoppers under his feet, and Baby Marjory clung to her mother, and cried, "Help-a-me, mamma."

It was a saddened and bewildered crowd that filled the little church, where the day was spent in pleading with God. The minister read from the book of Joel, and applied the terrible judgments that were prophesied there to the plague that had left every one of them destitute.

"Blow the trumpet in Zion, . . . sanctify the congregation, assemble the elders, gather the children: . . . let the bridegroom go forth of his chamber, and the bride out of her closet. Let the priests, the ministers of the Lord, weep between the porch and the altar, and let them say, Spare Thy people, O Lord, and give not Thine heritage to reproach." Joel 2:15-17.

"Turn ye even to Me with all your heart, and with fasting, and with weeping, and with mourning: and rend your heart, and not your garments, and turn unto the Lord your God: for He is gracious and merciful, slow to anger, and of great kindness, and repenteth Him of the evil. Who knoweth if He will return and repent, and leave a blessing behind Him?" Verses 12-14.

Thorough searching of heart sent the seekers home quieted and calmed, willing to leave all to the hand of God.

"I believe, Doc, that such judgments as the hopper plague are sent to humble us," said Mrs. Granger to her husband. "As a nation we are breaking the Sabbath. I think we should have laws to make every one keep Sunday. I believe firmly that had there been one Elijah in this town the devastating plague would have been stayed by a divine hand. Elijah prayed earnestly that it might not rain. Israel had forsaken God, and He listened to Elijah's prayer and withheld the rain for three years and six months. 'And he prayed again, and the heaven gave rain, and the earth brought forth her fruit.' James 5:18. We decided to-day to pray for rain, else our cattle will all die. Will you join us in that petition?"

"I shall be glad to do so," agreed Mr. Granger.

Before morning the stricken community were rejoicing in a wonderful rain, and they acknowledged the goodness of God in sending it to them in their extremity. The grass grew quickly, and was called "Providence grass."

Help was sent from neighbouring states in the way of food, but the Granger family decided to accept no aid; so they lived on the navy beans and dried apples that they had in store, until they could raise a garden.

"When God gives me a burden, I'll bear it," Mrs. Granger affirmed grimly.

"Brave little woman!" said her husband.

The scourge had left the country in such straits that the teaching force was cut down, and the wages reduced. Mr. Granger (*Turn to page 19*)

Extent of the Kingdom of God

By Carlyle B. Haynes

IT is important at the very beginning of our study of the origin of sin that we obtain an adequate conception of the vastness of the kingdom of God. Viewing this subject of the existence of evil and the origin and work of Satan from the standpoint of this world only, we shall never find any satisfactory solution to the great problem which it presents. But viewing it from the standpoint of the entire universe, with its unnumbered millions of created intelligences and its far flung boundaries reaching out into infinite space, we may gain some slight idea of the majesty and justice of God in permitting Satan to work his will among the inhabitants of the earth.

And so in this chapter we shall launch out upon a journey which will reveal to us something of the greatness of the dominion over which Jehovah rules as King. In imagination we shall travel through the vast reaches of space which separate the various parts of the kingdom until thought and imagination fail and the heart faints with the greatness of the mind of God, who spoke it all into existence.

Before starting upon this journey, let us view that part of the dominion of God upon which we dwell—the earth itself.

This earth is a globe 8,000 miles in diameter, and about 25,000 miles in circumference. Its surface contains nearly 200,000,000 square miles. It is diversified with great divisions of land and water, continents, oceans, islands; mountains which push their mighty heads through the clouds; depths of ocean which are unfathomed; vast forests, and swelling hills; animals of every form and size, from the elephant to the ant; unnumbered schools

of fish, from the whale to the minnow, playing in the depths of the ocean; birds of all kinds and without number flying through the air above; and numerous tribes and nations of men who suppose themselves to be rulers of it all.

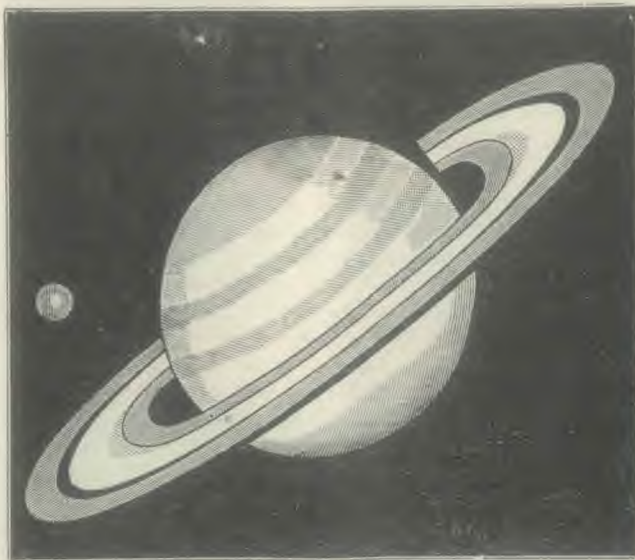
It is only with laborious thought that the mind takes in the vastness of the bulk of the earth. If we were to take our station on a mountain from which we could see forty miles in every direction, a circle eighty miles in diameter, and 250 miles around its outer rim, our eyes would cover an area of 5,000 square miles. With the hills, valleys, rivers, lakes, villages, farms, roads, and cities which such a scene would present to the view, we should find it difficult readily to grasp it at once. But when our eyes cover such an area, we are looking at but one-fortiethousandth part of the entire area of the earth's surface. We must see 40,000 such views pass before us before we have seen all of the surface of the earth.

And if we were to keep our station on that lofty mountain peak while one such scene as this passed before our eyes every hour, and we devoted twelve hours every day, day after day, to this work, we should be compelled to remain there nine years and forty-eight days before we had seen the whole surface of this majestic ball upon which we dwell. And then most of the objects would have passed by us at a distance of from one to forty miles, which would make most of the view indistinct.

And should we be determined to see everything distinctly before we leave on our long journey to other planets and systems, and come down from the mountain top to walk through every square mile of the surface of the earth, and walk thirty miles every day, 18,264 years would pass before we had finished our journey. If we had started when Adam was created we should now be but one-third through.

And consider the bulk of the earth. It is eight thousand miles through it; that is, its solid contents amount to 263,858,149,120 cubic miles. After laborious effort the mind fails to take in the thought of such a vast amount of matter. How great must be the power of Jehovah who spoke it all into existence. How limitless must be His might "Who hath measured the waters in the hollow of His hand, and meted out heaven with the span, and comprehended the dust of the earth in a measure, and weighed the mountains in scales, and the hills in a balance." Isa. 40:12.

Thus, before we have left our own domain, we find ourselves bewildered at the immensity of a world which is among the smallest of the planets, and we have advanced but a single step upon our journey into the dominions of the God of all the universe. This globe of ours, yes, even the entire



Rings of the planet, Saturn, which can only be seen through a telescope

solar system, is but as "a drop in the bucket" in comparison with the material universe over which God presides.

But we have taken no more than the first step upon our journey, and we must hasten on. Taking our flight out into the planetary system, the system that is controlled by our sun, which is its centre, we find that one of the planets is 780 times as large as the earth, and is encircled by a ring which reaches out from its surface nearly as far as the moon is from the surface of the earth. Another of these planets is 1,400 times as large as the earth, though it appears but a bright star to the naked eye at night. Taking all of the great orbs which circle around the sun, we find they contain a mass of matter 2,500 times greater than that of the earth.

And that great ball which controls them all, and dispenses to them all light and warmth—the sun—is 740 times greater than all the planets together, and 1,300,000 times larger than the earth, throwing the light and warmth out from its surface to the outermost planet, which is 2,790,000,000 miles away. The eye or the imagination can contemplate no more glorious and magnificent object than this, wielding its controlling influence over the planets which swing through space around, governing this great family with a power which never for one instant fails.

Mercury is the nearest of the planets to the sun, being 36,000,000 miles distant. Venus is 67,500,000 miles away; the earth, 93,000,000; Mars, 141,500,000; Jupiter, 483,300,000; Saturn, 886,000,000; and Neptune, 2,790,000,000.

And now we have reached the outermost rim of our solar system, and look for new worlds to conquer. But where shall we begin? The universe before us is swimming with myriads of stars and systems. Out at an inconceivable distance beyond our solar system is the stellar system,—the system of the stars. On a clear night about two thousand of these stars can be seen with the naked eye, and as each one of these stars is a great sun like our own, undoubtedly surrounded as ours is with planets controlled by this central luminary, there lies before us a mass of matter equal to two thousand solar systems, or to 1,500,000,000 globes of the size of the earth. But when we realize that the stars which can be perceived by the eye do not compose one one-hundred-thousandth part of those which can be seen through a large telescope, some idea can be faintly grasped of the length of the journey before us. In parts of the sky where the eye cannot discern more than twenty stars, the telescope will reveal thousands.

And out beyond the uttermost reaches of human vision, aided as it is by powerful glasses, undoubtedly there are myriads of vast orbs rushing through space, unknown to man. With each new telescope that is stronger than those which have preceded it, new vistas are being opened up, and new stars being found which are far beyond those which have been previously discovered.

Travelling out to these magnificent bodies we must find some mode of traversing space faster than



A view in the heavens

anything known on earth, for the fastest cannon ball ever shot from the mouth of a gun could not traverse this space in a million years. The very nearest star to the earth is 25,000,000,000,000 miles away. Its name is Alpha Centauri. And should we visit Polaris, or the North Star, we must travel 276,000,000,000,000 miles. So we must go with the light, which travels 186,000 miles, or more than seven times around the earth, in the space of a single second.

But travelling even at this terrific pace, it will take considerable time even to reach the nearest stars. At the rate light travels, we should not reach Alpha Centauri until four and one-third years had passed, and it would take forty-seven years to get to the North Star. So after we had travelled the 2,697,000,000 miles from our earth to the outermost planet, or Neptune, we have taken only a faltering step into illimitable space, compared to the first step of the child beginning to walk. And when we have gotten this much nearer the stars, there appears no change in them,—they seem as far away as before. There are still immense reaches of space between us and the stars—so great, in fact, that thought fails in the effort to bridge it, and even our imagination is useless here.

The stars are suns. Our sun is a star itself, and seen from other stars its appearance would be that of a small star. All the stars, together with the sun and our entire solar system, are rushing through space at a very fast rate. The speed of the cannon ball is no more than a thousand miles an hour, which bears no comparison to the rate with which the heavenly bodies are moving. When it is considered that if the mean density of the earth were but two and a half times that of water, it would weigh 2,200,000,000,000,000,000 tons, and that just one of the planets is 89,000 miles in diameter, and would take into its vast circumference more than a thousand globes the size of the earth, it is wonderful that such vast masses of matter should move at all. But Jupiter, with all its immensity, is moving in its orbit about the sun at the rate of 29,000 miles an hour, Venus at 76,000 miles an hour, and Mercury at 150,000 miles an hour, or 1,750 miles a minute, hundreds

of times swifter than a cannon ball. Surely we must exclaim with the redeemed whom John saw, "Great and marvellous are Thy works, Lord God Almighty" (Rev. 15:3), and ask with the Psalmist, "O Lord God of hosts, Who is a strong Lord like unto thee?" (Ps. 89:8), and say with Moses, "Thy right hand, O Lord, is become glorious in power" (Ex. 15:6).

The stars are at such distances from us in our rapid flight through space that no change can be noticed in their positions, though they are moving as fast as any of the planets, if not faster.

Centuries ago, in the land of Uz, God asked Job the question, "Canst thou guide Arcturus with his sons?" Job 38:32. Arcturus is a star which is said to be 950 millions of millions of miles from the earth. It is one of the brightest of the stars. So distant is it that it takes light travelling at the rate of 186,000 miles a second, 181 years to reach this earth from it. The sun is nearly a million miles in diameter, but Arcturus is said to be a thousand times as large as the sun. So much brighter is Arcturus than the sun that if the sun were placed at an equal distance from the earth it would be necessary to use a powerful telescope to find it.

Inasmuch as Arcturus is so much larger than the sun, it is reasonable to suppose it has a proportionately larger number of worlds circling it in their orbits than the sun. And with all these rushing worlds it sweeps grandly through space at the rate of two hundred sixty miles a second, never a second out of time, guided by that Master Mind whose throne, without doubt, it encircles.

Well might Job say, "Behold, I am vile; what shall I answer Thee? I will lay mine hand upon my mouth." Job 40:4.

While we have begun the journey into space (for these are but the outlying borders of God's works) yet here we must stop for a brief space, for we can not go farther with our finite wisdom. Let us pause here with reverence and wonder. Over all these rushing orbs God presides. This is His kingdom, and we have seen but a small part of it. Throughout all these objects, and among all these intelligences, He is ever present. All of its complicated movements are guided by His unerring wisdom. By His word in the beginning it emerged from nothing.

"He spake, and it was done; He commanded, and it stood fast." By the word of the Lord were the heavens made; and all the host of them by the breath of His mouth." Ps. 33:9,6.

Surely we can say with David, "The heavens declare the glory of God, and the firmament showeth His handiwork." Ps. 19:1. It is here in these vast realms of the universe, the chamber of the Eternal, that we behold the might of the Mighty, the strength of the Strong, the wisdom of

the Wise, the lore of the Learned, the made of the Maker, the order of the Orderer, the glory of the Glorious; and we see, though our eyes be dim, and our minds untaught, the majesty of the Designer who so reflects Himself in all His works. It is thus we should look upon the universe in all its awful grandeur—the earth, sun, stars, moon, planets; and we shall confess that these, without life, or power, or purpose, or thought, or will, unable to build up or destroy, to end or to begin, to hold or advance, to be or not to be, declare there is a God.

"An angel once took a man...and lifted him up into space to show him the glory of the universe...The man ceased to be cowardly, and was ready to fly with the angel past galaxy after galaxy, and infinity after infinity, and so man and angel passed on, viewing the universe, until the sun was out of sight—until our solar system appeared but as a speck of light against the black empyrean, and there was only darkness. And they looked onward, and in the infinities of light before, a speck of light appeared and suddenly they were in the midst of rushing worlds. But they passed beyond that system, and beyond system after system, and infinity after infinity, until the human heart sank, and the man cried out: 'End is there none of the universe of God?'

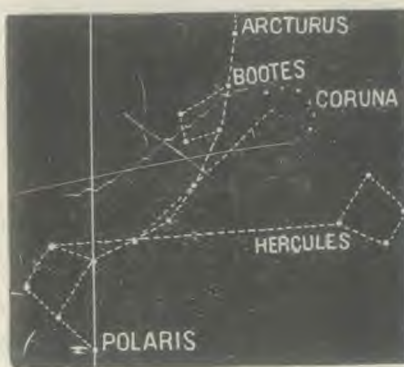
The angel strengthened the man with words of counsel and courage, and they flew on again until worlds left behind them were out of sight, and specks of light before them were transformed as they approached them into rushing systems.

"They moved over arch-traves of eternities, over pillars of immensities, over architecture of galaxies, unspeakable in dimensions and duration, and the human heart sank again and cried out: 'End is there none of the universe of God?' And all the stars echoed the question with amazement: 'End is there none of the universe of God?' And this echo found no answer.

"They moved on again past immensities of immensities, and eternities of eternities, until in the dizziness of uncounted galaxies the human heart sank for the last time, and called out: 'End is there none of the universe of God?' And all the stars repeated the question. And the angel answered: 'End is there none of the universe of God. Lo, also, there is no beginning.'"

The universe speaks a language of its own, which we may learn to read and interpret to our doubting soul's full satisfaction. More sweet than the music of the spheres is its varied wisdom if it tells us of Might which we cannot hold, of Power which we cannot reach, of Lore which we may behold but not all contain, of Wisdom whereof we can scarcely know the measure, of Majesty, and Grace, and Grandeur which shall wrap our souls in speechless amazement, and fill our minds with vast conternation of thought, for we shall be as one devoid of wisdom. Yet amid all our confusion and deep amazement we shall discern a wisdom which we cannot other wise perceive, and shall discover a knowledge which shall banish all our thought of doubt and unbelief.

And this, my brother man, is our Father's house. As I write of it for you to read I find in my heart a vast longing to go home. I want to continue that journey with you through the ever-expanding regions of space, (*Turn to page 22*)



Showing position of Arcturus

Beside all Waters

(Continued from page 15)

had been in correspondence with the Superintendent of Public Schools in California. In the year 1876, California seemed a long way from home—a new and wild adventure to set out for that far-distant land.

One day as Mr. Granger sat in deep thought, his wife asked him, "What are you thinking about, Doc?"

He looked up with a merry twinkle in his eye, "Oh, I am just naming the counties of California."

"Such a man,—always studying!"

"This time I am studying to decide which one to go to."

It was very hard for Mrs. Granger to give up her little home, and to move so far away from her people. Her girlhood treasures, her furniture, even her beloved organ,—on which she had planned to give music lessons to Andrew and to Baby Marjory,—were all left behind, and they came westward to seek their fortunes.

"Now, where from here?" questioned Mrs. Granger wearily. The long, tedious journey from Missouri on an emigrant train, with two small children, had been almost more than the usually dauntless little woman could bear. Every day had borne her farther away from her mother and brothers and her old home in Missouri, California! She had heard it vaunted to the skies. "The land of opportunity for the poor man" was the slogan that had drawn them westward. The fruits and flowers, she had enjoyed from the car windows as the lazy express train had brought them across the Sacramento Valley.

"Is this our destination?" she again asked her husband as he busied himself with the luggage.

"No, dear. The telegram from the Superintendent of Schools said we had to go by stage from here. Shall we rest over here or go on to-day?"

"Go on, by all means," replied the tired wife. "Let's get it over with, and see our future home."

The old-fashioned stage, with the high seat occupied by a quaintly bedecked driver, fascinated the Easterners. As the stage swung around sharp curves and swooped through dry, rocky, creek beds, they realized that they were indeed in a different world, at least in a different part of it.

Mr. Granger was boyishly happy over the adventure. "It's just as I thought it would be, Lizzie. Don't you think that you will love it here?"

His enthusiasm was the last straw for the homesick wife. "No, I don't! How can people make a living here? Where are the corn fields? And what do they burn? No corn—no cobs, no cobs—no fuel."

Mr. Granger laughed heartily. "Oh, you loyal little Missourian! Cattle raising is the principal industry here, and they live the year around on the grass."

"That dry stuff!"

The other passengers entered into the discussion. "It is dry now in the fall. Our rains

come in the winter, and soon you will see these mountains a bower of beauty, with bountiful green grass and lovely wild flowers." At last Mrs. Granger was convinced that the dry grass would produce sleek, fat cattle, for they passed herds of contented, grazing stock.

"How tall are those trees?" asked Mrs. Granger, in awe and wonder, as the stage brought them into the far-famed redwoods.

"I read that one had to look three times to see the top; and it seems almost true," laughed her husband.

At last the stage driver drew up with a final flourish and crack of his long, rawhide whip, and the passengers alighted before a long, low building made of lumber sawed from the trees that grew on that spot. The new home of the travellers was in a lumber camp in the redwood mountains, and it seemed to them that deer horns, deer hides, and guns adorned every doorway and corner.

They boarded for a few days in the rude place provided for the workmen, while Mrs. Granger searched about, investigating all buildings with a watchful eye for a future home. She felt lonely and desperate. "I have nothing left! I've lost all that I had in this foolish move of ours," she remarked at the breakfast table one morning. "At least I have plenty of *time* since we are boarding. I believe that I'll begin to study."

The workmen around the long table laughed. Study wasn't exactly in their line. "Going down to the little old schoolhouse and go to school to that teacher husband of yours?" questioned one of the men.

"No," she continued gravely, ignoring the amused glances, "there are two books that I have long wanted to read."

"And they are—?" queried her husband.

"Thoughts on Daniel' and 'Revelation.'"

"I haven't read 'Thoughts on Daniel,' but I found the book on Revelation very interesting indeed," replied Mr. Granger.

His wife looked at him in wide-eyed astonishment. "When did you read it?" she questioned.

"Oh, I borrowed it from that young preacher, Butler, back home. I offered it to you at the time, and wanted you to read it."

"I must have been too busy with the children," murmured the wife. "Now I have the time, and no books!"

The young man who sat next to Mrs. Granger suggested timidly, "There is an old gentleman up on the mountain side who has those books. He offered to lend them to me. He's a queer old fellow, with a very interesting history,—although he's just a sheep herder now. He'd be delighted to lend you the books."

"I would not care to borrow books, though I would appreciate it if you could find where I could purchase them."

"Shall I ask the old man to come to see you?"

"That wouldn't be necessary," replied Mrs. Granger as though dropping the subject; then, as her curiosity was aroused, she continued, "In what way is he peculiar?"

"Why, he says that the observance of Sunday is the mark of the beast," replied the young man as he pushed back from the table.

Mrs. Granger escaped from the noise of scraping chairs and the heavy tread of the boots of the mountaineers as they filed out to take up the labour of the day. She waylaid the young man when he appeared on the porch. "What do you mean by 'the mark of the beast'?"

"Oh, I don't know, but old man La Rue contends that Sunday is the mark of the beast, whatever that means. I guess it won't bother us none up here, being as no one keeps Sunday—nor any other day—except old man La Rue."

"I won't get up that way this week. He'll more'n likely come to see you anyway. He's on the lookout for every newcomer. He'll bring you books and papers probably. He seems to think that his duty. He says you can find out all about the mark of the beast in the Bible. He is a Christian, though, ma'am," added the youth as he hurried away to the woods.

"I wonder what he means by the mark of the beast being Sunday?" mused Mrs. Granger as she wandered beneath the towering trees with her children. "I never even heard of such a thing. Maybe if I'd study my Bible I might get some light. I know it mentions beasts in Daniel and also in Revelation. I never could understand those two books."

Why this Ravage by the Elements?

(Continued from page 6)

against kingdom; and there shall be great earthquakes, and in divers places famines and pestilences; and there shall be terrors and great signs from heaven." "For these are days of vengeance that all things which are written may be fulfilled." "And there shall be signs in sun and moon and stars; and upon the earth distress of nations, in perplexity for the roaring of the sea and the billows; men fainting ["expiring," margin] for fear, and for expectation of the things which are coming on the world: for the powers of the heavens shall be shaken. And then shall they see the Son of man coming in a cloud with power and great glory. But when these things begin to come to pass, look up, and lift up your heads; because your redemption draweth nigh." Luke 21: 10, 11, 22, 25-28.

How faithfully does the Master foretell the terrible things that will be visited upon this earth because of its sins! God can not protect sin; and when sinful men plunge so deep that they lose even the sense of shame for their evil deeds, then the great God of love is forced to withdraw His protection, and they reap what they have so wilfully and so arrogantly sown.

And right here is where many people make a fundamental mistake. As they behold these destructive visitations, with their harrowing tolls of human life and their wiping out of homes and

all that they stand for, the hasty conclusion is that God Himself is the author and the perpetrator of it all. But we should be fair enough to let God tell His own story. Reflectively ponder His words that follow:

"Fools because of their transgression, and because of their iniquities, are afflicted. Their soul abhorreth all manner of food; and they draw near unto the gates of death. Then they cry unto Jehovah in their trouble, and He saveth them out of their distresses. He sendeth His word, and healeth them, and delivereth them from their destruction. Oh that men would praise Jehovah for His loving-kindness, for His wonderful works to the children of men! And let them offer the sacrifices of thanksgiving, and declare His works with singing." Psalm 107: 17-22.

Every affliction that has ever come is in one way or another connected with some kind of transgression. There is no effect or result anywhere without its cause, be that cause either immediate or remote. The text is, "The curse that is causeless alighteth not." Proverbs 26: 2.

We would abhor a human judge who would protect murder, robbery, or any other crime. And shall not the great Judge of the universe be reckoned upon to deal with the sins of men? He has visited this earth because of its sins all through its history, and He is even now making His final visitations in this "great day of the Lord."

But if you will join the merciful Christ by turning away from your sins, He invites you to "look up, and lift up your heads; because your redemption draweth nigh." And through His prophet the assurance of the Lord is:

"Fear not, for I have redeemed thee; I have called thee by thy name, thou art Mine. When thou passest through the waters, I will be with thee; and through the rivers, they shall not overflow thee: when thou walkest through the fire, thou shalt not be burned, neither shall the flame kindle upon thee. . . . Since thou hast been precious in My sight, and honourable, and I have loved thee; therefore will I give men in thy stead, and people instead of thy life. Fear not; for I am with thee." Isaiah 43: 1-5.

In no equivocal language the Lord tells of the terrors that will fill the earth in "the great day of God." And alongside all these warnings are the rich promises of His love and protection. To know the blessedness of these promises fills the soul with calm joy, even in the midst of the greatest visitations of "the day of the Lord." God has a shelter, and each one is urgently invited to find the solace of its protection.

"The clock of life is wound but once,

And no man has the power

To tell just when the hands will stop—

At late or early hour;

Now is the only time your own;

Live, love, toil with a will,

Place no faith in to-morrow, for

The clock may then be still."

OUR HOMES!

Making Home Homely

The Children's Influence

SOMEONE has said that a home without children is no home at all; that it provides nothing more than a habitation and a name, and that one might as well live in an hotel and be just a number and a pair of boots. This, of course, is a wildly extravagant exaggeration, and we may take it with a big pinch of salt, because we all know heaps and heaps of childless homes that are exquisitely comfortable, and deliriously happy and homely. It is, therefore, absurdly fantastic to argue that without children home is not homely. My own home is childless, but to me it is the most homely home on earth.

But having disposed of this fallacy which argues "no children no home," it would be a mistake to suppose that the children's influence in the home is negligible. Far from it. The healthy atmosphere created by a family of romping boys and girls is something to delight in. Nothing contributes more to the homeliness of a home than the play and laughter of the kiddies. It is infectious, and should never be repressed or frowned down. If children are wisely brought up they will never be a nuisance, they need never be in the way, but will add just that final touch of buoyancy and simplicity so desirable in the home. There is much, too, that we can learn from the youngsters, and many of us might well take a leaf from their book of ingenuous and artless ways. The child, moreover, is often a good peacemaker. The following is a true story, but is not an isolated one. There are many similar.

A couple of my acquaintance, having got at loggerheads over some inconceivably foolish trifle, had drifted into "not on speaking terms." Neither of them would hold out the olive branch. The tension tightened. Matters became acute. The child—ever observant—was conscious of something strange between her parents, and climbing on to her father's knee one day, wound her chubby arms about his neck, and peering into his sullen and angry face said with the utmost tenderness, "Daddy, don't you love Mummy any more?" That opened the flood gates. Tears flowed on both sides. The estranged parents pocketed their grievances, sank their differences, and made up their minds to "kiss and be friends again." Yes, decidedly the child has its influence in the home.

We hear quite enough about the shortcomings of the girl of to-day, her love of clothes, her hunger for amusement, her thirst for admiration. We are asked to believe that she has no love of home, no religion, no sympathy for suffering, no consideration for the aged, no respect for her parents, no vocation for motherhood. A brutal charge indeed if it were really true. But every

age has its characteristics you know, and every generation its particular faults. You may not approve of cigarettes, cocktails, jazz, and all the rest of it, but you cannot surely close your eyes to the obvious fact that the girl of to-day is gloriously healthy, physically, and mentally, astonishingly capable and brainy. You must admit she has remarkable poise, thorough efficiency, and a noticeably even temper. She makes a rattling good wife, is a splendidly loyal chum, an unflinching help and stimulant. And it is just these qualities that make her helpful in the home. And if she happens to appreciate comfort, and all the joys of life, and having a good time generally just as much as you and I, do you not think she is at the same time helping and doing her bit in making home homely? I do, and I am convinced that it is only the mentally out-of-date and narrow-minded, the hopelessly old-fashioned and "stuck-in-a-rut" who spend so much time carping at the girl of to-day. Doubtless she has her faults. I am not defending, nor excusing them, but she has also some matchless good qualities that are certain to find expression when she turns her mind eventually to making home homely. Not the least of these is a complete absence of sham and pretence. *Marie Blanche in Good Health, England.*



Junior and Mr. Germ

By Howard W. Haggard

MR. Harold Augustus Germ was sitting on the hillside just a little from Junior. "How did you get here?" asked Junior. Mr. Germ smiled and said: "Off the fly's foot. My journey is ended. This is the place I wanted to reach."

"Where are we?" asked Junior.

"On your baby sister's face," replied Mr. Germ.

"My baby sister's face," cried Junior. "No! No!" Then he looked around. Mr. Germ might be right after all. Many strange things had happened to Junior since he had become small. This steep, rough hillside might be baby sister's face. Yes, Mr. Germ was right. It was baby sister's face. These small trees to which Junior was holding to keep from falling were the tiny downy hairs that grew on baby sister's face. The hollow that Junior thought was a deep ditch in the red dirt of the hillside was baby sister's mouth. Sister started to smile and her mouth was coming open now. Junior could see her teeth. They looked to him as big as stone monuments. As sister opened her mouth the skin on her face moved. Junior felt what he had thought was the hillside move under his feet. He almost lost his balance and fell off.

At last Junior had reached baby sister's face. That is the place he had wanted to reach ever since he saw Fido put Mr. Germ's children there. Junior remembered, too, how he had reached baby sister's face. The fly had carried him there. He was ashamed of himself for being angry with the fly and sticking it in the back with the splinter of wood. Now that he had reached sister's face he must get rid of the germs that were there. Junior looked around to find the germs. For a moment he had mistaken them for round rocks on the hillside. Now he saw one of them move and he knew they were germs. He saw Mr. Germ's fourth cousin, too. He was near the corner of baby sister's mouth wriggling back and forth almost ready to go in.



OUR BIBLE READING

"The entrance of Thy Word giveth light"



Who Changed the Sabbath?

Earl F. Hackman

Who is responsible for the so-called change of the Sabbath?

"He shall speak great words against the Most High, and shall wear out the saints of the Most High, and think to change times and laws." Daniel 7:25.

NOTE.—As the only *time* in any way connected with the law of God is the Sabbath, it follows that the change contemplated by this power is the change of Jehovah's rest day. As to the identity of this power, there is an almost unanimous verdict by Protestant commentators that this power is the papacy; so at her door must be placed the responsibility of attempting to change the Sabbath. Now the question comes, Is the Catholic Church responsible for the change of the Sabbath? On this point we shall offer three proofs:

1. A mark of its origin. Sunday begins at midnight. This very fact reveals the hand of Rome. The Bible day ends at sunset. (Leviticus 23:32.) The Romans, on the contrary, began their day at midnight.

2. Testimony of history. Dr. N. Summerbell, a noted author in the Christian church, says in his "History of the Christians," page 418: "It (the Roman Church) has reversed the fourth commandment, doing away with the Sabbath of God's word, and instituting Sunday as a holy day."

There were three principal steps in the establishment of Sunday: The first came in 321, when Constantine made his famous law in behalf of "the venerable day of the sun." This was the first law ever made in regard to Sunday keeping. See Encyclopædia Britannica, article "Sunday."

The second step was an attempt made by the Council of Laodicea to abolish the keeping of the seventh day. The historian Prynne says: "The seventh-day Sabbath was . . . solemnized by Christ, the apostles, and primitive Christians, till the Laodicean Council did in a manner quite abolish the observance of it."—"Dissertation on the Lord's Day," page 32.

The third principal step in the establishment of the keeping of Sunday was by the Council of Orleans. Dr. Summerbell says: "In 321 Constantine made a law that Sunday should be kept in all cities and towns. But the country people

were allowed to work, and not until 538 A. D. was country labour prohibited by the third Council of Orleans, which called it the *new Sabbath*.—Page 152.

Wherever the Catholic Church held sway she suppressed the Sabbath and exalted Sunday. The fact that the Sabbath continued to be observed in many places where the Catholic Church did not have influence enough to suppress it is strong evidence that the change was wrought by the power of the Catholic Church.

3. The third proof is given in the next question and answer.

What power has claimed authority to change the law of God?

We now give the third and last proof that the Catholic Church is responsible for the change of the Sabbath. And surely nothing is stronger proof than her own claims. No less than five Catholic catechisms admit that Rome made the change.

"Which is the Sabbath day?"

"Saturday is the Sabbath day."

"Why do we observe Sunday instead of Saturday?"

"We observe Sunday instead of Saturday, because the Catholic Church in the Council of Laodicea (A. D. 336), transferred the solemnity from Saturday to Sunday. [The date usually given for this council is 364]"—"The Convert's Catechism of Catholic Doctrine," by Rev. Peter Geirmann, C. S. S. R., p. 50, third edition, 1913, a work which received the "apostolic blessing" of Pope Pius X, Jan. 25, 1910.

The following instruction on the third (fourth) commandment is taken from "A New Catechism of Christian Faith and Practice," pages 86, 87, by the Rt. Rev. James Belford, D. D., Titular Bishop of Milevis; the authorized American edition with the imprint Ave Maria Press, Notre Dame, Ind., 1909:

"What day was the Sabbath?"

"The seventh day, our Saturday."

"Do you keep the Sabbath?"

"No; we keep the Lord's day."

"Which is that?"

"The first day; Sunday."

"Who changed it?"

"The Catholic Church."

NOTE.—These words draw a line which ought to make plain to us the great (Turn to page 25)



The

DOCTOR SAYS



"I have been troubled with a patch of eczema which thus far has resisted all treatment. What have you to suggest?"

You may get almost instant relief from an application of X-rays. Often one treatment is sufficient to effect a cure. But the treatment must be administered by a competent person, other wise it might do more harm than good.

"Please tell me what food I should eat in case of catarrh of the stomach, intestines, throat, and head."

In such a case, there is always a possibility of trouble requiring surgery, such as appendicitis or gall bladder trouble; and again there may be infected tonsils or bad teeth, any of which would prevent your getting permanent relief from diet and home treatment.

So your best and cheapest course in the long run would be to consult at once a competent physician or surgeon who is up to date in modern methods, and who can give you a thorough examination and determine just what is the cause of your trouble, or else to go to a good sanitarium.

For diet I can recommend nothing better than milk, cereals, fruits, and vegetables in proper combination, and the avoidance of grease, condiments, pickles, tea, and coffee.

"Is nasal catarrh curable?"

Nasal catarrh is usually curable, but the cure is by no means an easy or simple matter. There is no such thing as a successful "catarrh remedy." The numerous advertised nostrums are all mere "catch penny" schemes, and some are positively harmful.

In the majority of cases there are conditions in the nose which require the special attention of an expert. Bones become thickened; mucous surfaces are swollen; drainage passages become obstructed, retaining infectious material. The cavities of the facial bones connected with the nasal cavity become infected, thus maintaining a condition of chronic infection.

In every case of chronic nasal catarrh a competent nose specialist should be consulted. The wonderful advances made in the treatment of disorders of the nose within the last quarter of a century make it possible now to effect a cure in practically every case of chronic catarrh in which the disease has not existed so long as to cause extensive destruction of the mucous membrane or other structures of the nose.

"What is the cure for a verucca on the bottom of the foot? What is the cause of the same?"

A wart consists of a hypertrophy of one or more papillae of the skin. The cause is by some investigators thought to be parasitic. Destruction by some means is a remedy. The quickest method is removal by excision. When this method is employed great care should be taken to remove with the wart a margin of healthy skin, avoiding any cutting of the wart itself. The electric cautery, electrolysis, various chemical escharotics, the X-ray and radium are all effective means of removing these excrescences.

"About six years ago (when I was thirty-four years old), I discovered one small lump in my right breast. There was no pain or soreness. I went to a surgeon for examination. He stated that the lump was in all probability harmless, but advised an operation as a matter of precaution. When the operation was performed, two quite small lumps were taken out. A microscopic examination showed them to be cysts. Three years ago, small cysts appeared in the left and right breasts. I had them operated on. Now there is another cyst in my right breast. I am sure that my surgeon

will advise another operation in order to be on the safe side. I have been told that x-ray can be used, but that it has a tendency to harden the tissues so that a possible future operation might be more difficult.

"I am writing to ask: 1. What causes cysts in the breast? 2. In view of the history of this case, would it be considered safe to do nothing? 3. Is there any method of treatment besides surgery and x-ray, and which is the better treatment?"

Cysts of the breast may be due to stopping of the milk duct while the terminal continues to function. 2. It is not considered advisable to neglect cysts. It is believed that cancer may arise from these cysts in some instances. 3. There is no method of treatment so efficient as surgery. 4. At forty years of age the lactating period has passed, as a rule. There is a plastic procedure developed for this very type of case. A curved incision beneath the breast is employed. This incision is later hidden by the drooping of the breast. Through the half-moon incision, the breast tissue is readily removed leaving the nipple, areola and skin over the breast intact. The rotundity of the breast is reestablished. An experienced surgeon can restore the contour until it is almost identical with the normal breast. A procedure of this type once and for all terminates the disturbance.

"What is neuralgia? How may the pain be relieved?"

Neuralgia may be caused by malnutrition, impoverishment of the blood, an excess of protein in the diet, auto-intoxication through the absorption from the colon of the products of putrefaction. An eminent French physician has stated that pain is the cry of a hungry nerve for better blood. The best way to secure better blood is to live an active outdoor life. Better blood is secured by careful regulation of the dietary, avoiding all irritant and poison-containing foods, by thorough mastication of food, and a sufficient amount of exercise daily in the open air to secure moderate perspiration; the cold bath every morning on rising, and an abundance of fresh air during the night secured by opening the windows of the bedroom or by sleeping outdoors.

For temporary relief heat is the best of all remedies. It cannot be too often repeated that heat kills pain. Applications of heat may be applied in a great variety of ways, as by hot fomentations, hot water bags, hot sand bags, hot poultices, photophore, incandescent electric light, arc light and diathermy.

"Is there a cure for ichthyosis? What is the cause? Perhaps you can suggest measures which would improve the condition of my skin."

Ichthyosis is a congenital disease. That is, it is something that comes to a person from the parents, although it is not necessarily hereditary, and the parents may not have had it. It may not show itself for some time after birth, and may then begin in a small patch at the ankles or wrists, and continue to spread.

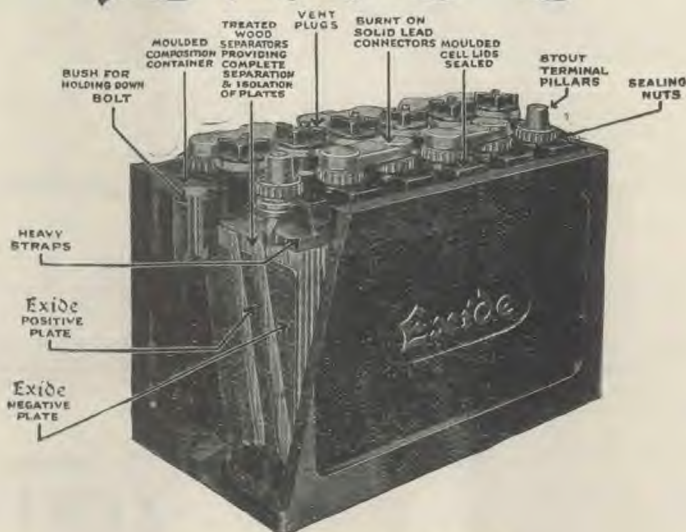
There is a mild form of the disease that is very little more than a roughening of the skin, which is hard and dry and parchment-like. The severer forms have warty or horny growths, somewhat similar to fish scales, which give the disease its name.

I do not know that anything can be promised so far as a cure is concerned. No method of cure has ever been successful. You may, however, try frequent bathing, especially in warm, alkaline water, using, say, four to eight ounces of bicarbonate of soda to a bath, and following it with an oil rub after thorough drying. This may give you some measure of relief, but of course will not cure the trouble.

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CALCUTTA

Who Changed the Sabbath?

(Continued from page 23)

issue involved in this Sabbath question. If we would be true Protestants, we should keep holy the seventh-day Sabbath. Those who keep Sunday are accepting the authority of the Catholic Church in respect to the day for their Sabbath keeping.

What part of the law has the papacy thought to change?

The fourth commandment.

"They (the Catholics) allege the Sabbath changed into Sunday, the Lord's day, contrary to the Decalogue, as it appears; neither is there any example more boasted of than the changing of the Sabbath day. Great, say they, is the power and the authority of the church, since it dispensed with one of the Ten Commandments."—*Augsburg Confession, Art. 28.*

Do Catholic authorities acknowledge that there is no command in the Bible for the sanction of Sunday?

"You may read the Bible from Genesis to Revelation, and you will not find a single line authorizing the sanctification of Sunday. The Scriptures enforce the religious observance of Saturday, a day which we never sanctify."—*Cardinal Gibbons, in "Faith of Our Fathers," edition, 1892, page 111.*

What is my duty in face of all this evidence?

God will save every person who lives up to all the light that He sends him. If we do wrong not knowing it is wrong, God will not hold it against us. See John 9:41 and Acts 17:30. But if we have been keeping the wrong day through ignorance, and now light has come to us from the Bible, showing us there is no Bible proof for Sunday, then it is every Christian's duty to walk in that light. If we do not keep the seventh-day Sabbath after the light has come to us, then it will be held against us in the day of judgment. (James 4:17.) Some say it does not make any difference which day we keep, it is not a question of days, but a question of obedience. God says, "The seventh day is the Sabbath." The church says, "The first day." Now which day will you keep? "We ought to obey God rather than men." Acts 5:29.

It is not a world for men to take their ease in; but a world for work. It is not a world for the selfish greed of gain, nor the selfish struggles of power; but a world for generous self-abandonment, for sacrifice and heroic toil. Only he shall be loved of God and honoured of men who is found to have accomplished something for human happiness and human good.—

Roswell D. Hitchcock.

MEATLESS RECIPES

GREEN PEAS, FRENCH STYLE

12 button onions, peeled 1/2 tsp. sugar
 3 cups shelled peas 1 tsp. salt
 2 tsps. minced mint 2 tbsps. butter
 Lettuce leaves

Place the peas, onions and mint with the seasonings in a deep pan with enough water to keep them from sticking. Over the top place tender lettuce leaves. Cover and cook slowly until the peas and onions are tender. Add the butter and serve.

PINEAPPLE AND CELERY TOMATO CUPS

6 tomatoes 1 cup finely chopped pineapple
 1 cup mayonnaise lettuce
 1 cup finely shredded celery

Scald the tomatoes, plunge into cold water and peel. Chill before using. Mix the pineapple and celery with the mayonnaise to moisten. Remove the pulp of the tomatoes with a spoon and fill the shell with the celery mixture. Serve on crisp lettuce leaves, garnish with mayonnaise and chopped parsley.

NUT AND FRUIT WHIRLS

2 1/2 cups flour 1/2 cup raisins
 1/2 tsp. salt 1/2 cup chopped candied
 4 tsps. baking powder orange peel
 1 tbsps. sugar 1/2 cup chopped citron
 4 tbsps. butter 2/3 cup brown sugar
 1 egg, beaten 2 tbsps. butter
 1/2 cup chopped nuts 2/3 cup milk

Sift together the flour, salt, baking powder and sugar. Rub in the butter, keeping the mixture flaky. Add the egg and milk and roll into an oblong sheet a scant half inch thick. Soften the butter, spread it almost to the edge, sprinkle on the top the fruit and nuts that have been mixed together and the sugar and roll like jelly roll. Cut in half-inch slices and place with the cut side down on a buttered pan lined with paper. Bake thirty minutes in moderate oven.

SOUP BRAZILIAN

4 potatoes 4 tbsps. butter
 2 cups spinach 5 cups water
 1/2 cup string beans 1 tsp. salt

Cut the vegetables into cubes. Melt two tablespoonfuls of butter and cook the vegetables in it until slightly brown. Add the seasoning and water and cook slowly until they are soft. Add the rest of the butter just before serving.

LETTUCE AND PEAS

1 small head lettuce 1 cup bread crumbs
 2 cups peas 1 tbsps. melted butter
 1 tbsps. chopped onion 1/2 tsp. salt

Prepare lettuce cups by slipping one leaf of lettuce inside the other. Mix the other ingredients and fill the cups. Tie together with string and steam one-half hour. This makes a nice plate luncheon dish.

TOMATOES CLAIRE

6 whole tomatoes 3 cloves
 1 onion 2 tsps. salt
 1/2 cup bread crumbs 6 eggs

Stew the tomatoes with seasoning until most of juice has evaporated, add the crumbs. Place in an earthen baking dish and drop the eggs on top of the tomatoes. Cook until set and serve at once. This is also an attractive luncheon dish.

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Gethsemane and Calvary

(Continued from page 10)

Again we quote the words of another: "It was not the spear thrust; it was not the pain of the cross that caused the death of Jesus. That cry uttered 'with a loud voice' at the moment of death, the stream of blood and water that flowed from His side, declared that He died of a broken heart. His heart was broken by mental anguish. He was slain by the sin of the world." "Desire of Ages," p. 772.

As I stand alone at the foot of the cross I find myself again represented in one or the other of the two thieves crucified with Jesus. As I lift my eyes to the right I see hanging there the impenitent thief. He was a sinner before God, but to the bitter end he resisted the mighty argument of the cross and died with curses upon his lips. He represents that great class of finally impenitent, who resist to the end the drawing power of the grace of God, and who are finally abandoned of God as though Jesus had never died for them. For them the agony of Jesus was in vain. May we not be among that number.

But I lift my eyes to the left and I see hanging there the penitent thief. Like the one on the right he had been a great sinner, and even that day he had in the beginning joined in the cursings of the other thief. But the silent suffering of Jesus had

softened His heart. He read the inscription over the head of Jesus, "The King of the Jews" and there broke over his vision a great light. He saw Jesus dying, not for Himself, but for others; not to occupy an earthly throne, but to win the right to dethrone self and sin from the rebel hearts of men, and to be enthroned Himself as King of the empire of men's hearts. He saw the One who was sinless, being made sin in his behalf, and thereby accumulating merit which He did not need, but which would be for him both the title to heaven and fitness for heaven. His heart was won and yielded to his Lord as he cried, "Jesus, remember me when Thou comest in Thy Kingdom." The darkness that had settled over Calvary was pierced by a beam of light from the throne of God as the dying King replied, "Verily I say unto thee to-day (while all things seem to be against me) thou shalt be with me in Paradise."

That dying, penitent thief, represented me. Like him I recognize that Jesus has won the right to be King of the Empire of men's hearts. None other shall henceforth rule in this heart of mine. To me, therefore, comes likewise the blessed assurance, "Thou shalt be with Me in Paradise."

Will you not, dear reader, likewise crown Him as King of your heart and life? At this season when so many in the world are recounting the scenes of Gethsemane and Calvary, will you not also yield your heart more fully to Him, that He may be your title to and your fitness for heaven? He "who knew no sin" was made to be sin for you, that you might "be made the righteousness of God in Him." "And in none other is there salvation; for neither is there any other name under heaven, that is given among men, wherein we must be saved." Acts 4:12.

Why I Believe the Bible

By K. B. Wilcox



FEW days ago, someone asked me why I believed the Bible. I had not thought very much about the subject, but since then I have been asking myself just why, in this modern age of unbelief, I should still have confidence in this "out-worn," "antiquated," "out-of-date" Book that is being literally torn to pieces by modern critics.

Being a fairly modern young person, one reason I believe the Bible is because it has been proved to me to be, instead of an "out-of-date" Book, a very "up-to-date" Book. I hear or see it quoted almost every day in the church and from the pulpit, of course, but it is also mentioned in the newspapers and magazines, on the streets, in the cinemas, and, inadvertently, in private conversation; for we find many Bible expressions in use to-day, and I am sure I may safely say that nine-tenths of those who use them or hear them used do not know that they may be found in the Bible. I have also been astonished at the number

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of subjects of modern interest that are touched upon in this same antiquated Book.

I believe the Bible because many of its historical statements have been proved by archaeological discoveries beyond the shadow of a doubt, and its prophecies have been fulfilled to the letter.

Another proof that there is something in the Bible beyond that found in any book written by mere man is the fact that, despite innumerable efforts to destroy it, it still stands strong and unchanged throughout the centuries, preserved in most miraculous ways from the efforts of those who have sought to obliterate it. It may be read again and again, and each time it is read new beauties appear, new truths are discovered, new interest is awakened, and knowledge is increased. It is read more widely the world over than any other book, and it is the best known of all books.

I believe the Bible because I have seen the outworkings of its teachings in the daily lives of my fellow-men. I have seen a selfish, ill-tempered, sour young woman transformed by the power of its magic influence into a sweet-tempered, lovable individual whose sunny disposition made friends everywhere. I have seen a cold, scheming, underhanded man of the world, who always tried to get the best of the other fellow in business deals, changed into a kind, magnanimous, sympathetic Christian; and by the power of this same mighty Word, I have known of a cursing, blaspheming lawbreaker, guilty of some of the worst crimes in

the criminal calendar, being miraculously transformed into a docile, honest, God-fearing law-keeper, who could be safely trusted with millions. I have seen a dirty, savage, blood-thirsty cannibal made over into a clean, peace-loving, civilized tribal ruler by the power of this wonderful Book.

And because this same powerful record tells me of a divine Being who backs up every statement made by this Bible in the person of His Son whom He sent into the world to be the embodiment of all that is noble and good and true, and to exemplify in His own perfect life the truth of the teaching of the Book, thus proving its authenticity, I believe the Bible. I think it was Robert Ingersoll's daughter who, when he was about to die, said to him "Papa you are experienced and able to tell me. Which would you advise me to take as my guide and rule of life through the mazes of this world—your infidelity or mamma's religion?" And Ingersoll replied, "Your mother's religion, my child."

Look where you will the world over, among all the heathen nations, and you will find in all some tradition, some folk-lore, something which contains the idea of some supreme being, often supplemented with teachings similar to those of the Bible. Where in all the history or tradition of any heathen nation in the earth to-day do we hear the Bible-denying, popular theory that man descended from an ape? The Oriental nations, who are steeped in tradition, have no such legend or theory. As one Chinese in San Francisco recently remarked, he thought man was degenerating into a monkey rather than coming from a monkey in the first place. The most complicated machine in the world must have a maker of some kind; and it is much easier for my mind to grasp, by simple faith, the story of the creation of this complex world of ours by a great master-mind, as recorded in the Bible, than to accept the ever-changing, man-made theories.

There is something in the sweet old story that touches an answering chord in my heart—something that wholly satisfies. Can you conceive of any other than a supreme Being, the great Creator of the heavens and the earth and all that in them is who could so completely meet the changing, fickle, restless, unsatisfied, hearts of all mankind?

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Hemorrhage from the Nose and Mouth, and how to deal with it

By A. G. Simmins, M.B., M.R.C.S.

BLEEDING from the nose is extremely common and is not often serious. If it occurs very frequently it may mean that there is something within the nose which requires treatment, such as ulceration, or else that there is some general disease present. Very rarely is sufficient blood lost to seriously affect the general health. To stop bleeding from the nose, the head should be held back with the patient sitting up, and cold applied at the back of the neck, either by means of a piece of cold metal or of cloths wrung out of cold water. It is better not to blow the nose, as this hinders the clotting of the blood which helps to stop the hemorrhage. In cases of serious bleeding a doctor must be called in.

Whenever there is severe bleeding, from whatever part it may be, it is most important that the patient should keep still. He must be told that the quieter he keeps the more quickly will the bleeding cease. Patients suffering from hemorrhage often become very restless and uneasy, and it is the first duty of those in

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attendance on them to reassure, and urge the necessity for absolute rest.

There are many causes of bleeding from the mouth. Of the less serious conditions causing it there may be mentioned inflammation and ulceration of the inside of the mouth, spongy gums, and biting of the tongue, such as occurs in epileptics during a fit. The bleeding is usually slight. To relieve the bleeding, a mouth wash should be used after every meal, or more frequently, and the teeth should be kept thoroughly clean with a brush. A saturated solution of thymol is a good and cheap mouth wash that can be made up by any chemist. In cases of spongy and bleeding gums it is a good thing to "massage" the gums with the finger for a few minutes every day. This increases the bleeding for the time, but after a while marked improvement takes place. After using the thymol for a few days, it is an advantage to change to an alum mouth wash composed of half an ounce of alum together with an ounce or so of a glycerine substitute, to a pint of water.

Sometimes hemorrhage from the mouth is the sign of more serious disease, either of the mouth itself or of other parts. The blood ejected from the mouth may really come, not from the mouth, but from the stomach or lungs. The commonest causes are ulcer of the stomach, cirrhosis of the liver, and tuberculosis of the lungs. If the blood comes from the stomach it may come in large or small quantities, and may be anything in colour

from bright red to a dark brown or black. Whether due to liver or to gastric ulcer, the patient has usually had indigestion for some time previously and may have had other hemorrhages. Cirrhosis of the liver is a condition not infrequently found in elderly men who have lived and drunk too well. It is sometimes known as "hob nailed liver." Gastric hemorrhage is often associated with it, but is often beneficial rather than harmful. Hemorrhage from an ulcer is a much more serious matter.

Blood which has been coughed up from the lungs can be distinguished by its bright red frothy appearance. Tuberculosis is the most frequent cause of bleeding from the lungs. The blood may sometimes be brought up without any noticeable coughing. Not infrequently the blood is only just sufficient to slightly stain the sputum, at other times many ounces of pure blood are brought up. Slight staining of the sputum with blood occurs in many other diseases besides tuberculosis.

The treatment of all patients who have had severe bleeding from the lungs or stomach is very much the same. They must lie down immediately and remain perfectly still. Someone should remain near by to reassure them. The food must be restricted to fluids, and these should be non-stimulating drinks such as milk, barley water, and fruit juices. They must be given cold. Sips of ice cold water are useful. In the case of hemorrhage from the stomach the doctor may stop all food for a time. The patient should not be

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allowed up without the permission of the doctor and must be kept absolutely flat in bed and everything must be done for him.

Bleeding from the nose, mouth, lungs, or stomach is sometimes due to cancer. Two things may be said about cancer before closing this article: one is that it is often difficult to determine whether cancer be present, and that cancer in its early and curable stages is painless; the other is "Beware of Cancer Quacks!" If cancer is suspected, to go to a qualified medical man is to relieve one's mind and to make sure, if it is cancer, of any chances of cure there may be.

Fruit for Bad Breath

A DIET exclusively of wheat bran and fruit, preferably apples and oranges, continued for three or four days is advocated by Professor Kellogg for clearing the tongue and sweetening the breath in ordinary cases. Half a pound of sterilized bran should be eaten daily, and apples may be eaten as many as desired if causing no inconvenience. Twelve to sixteen apples taken at four meals will suffice. They must be eaten raw and should be well masticated. The apples may also be eaten whenever there is a craving for food. It is further affirmed that since fruit lays no tax upon the digestive tract, berries, grapes, oranges, etc., may be added to the diet if desired. The greater the bulk and the less the actual food value represented in the food the better. The bran is necessary for the reason that the tender cellulose of fruit is often almost completely digested and so furnishes little residue.

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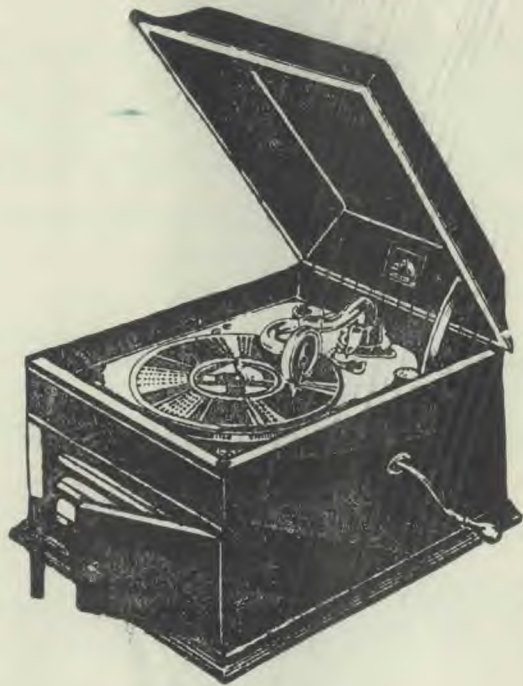
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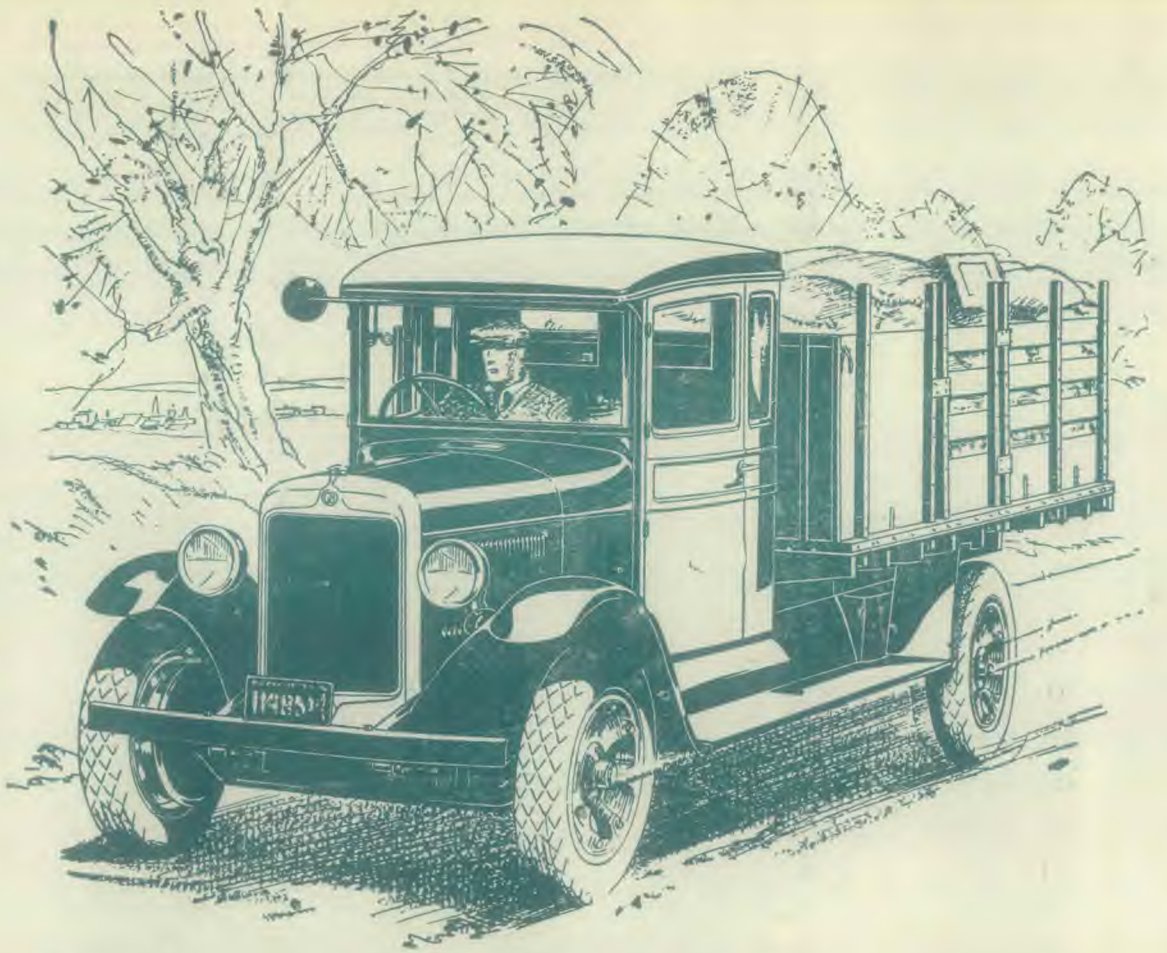
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