

Awake!



THE GROWING OIL CRISIS

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What Do You Know About Prayer?

PAGE 8

Winter Ways of Wildlife

PAGE 20

JANUARY 8, 1974

THE REASON FOR THIS MAGAZINE

News sources that are able to keep you awake to the vital issues of our times must be unfettered by censorship and selfish interests. "Awake!" has no fetters. It recognizes facts, faces facts, is free to publish facts. It is not bound by political ties; it is unhampered by traditional creeds. This magazine keeps itself free, that it may speak freely to you. But it does not abuse its freedom. It maintains integrity to truth.

The viewpoint of "Awake!" is not narrow, but is international. "Awake!" has its own correspondents in scores of nations. Its articles are read in many lands, in many languages, by millions of persons.

In every issue "Awake!" presents vital topics on which you should be informed. It features penetrating articles on social conditions and offers sound counsel for meeting the problems of everyday life. Current news from every continent passes in quick review. Attention is focused on activities in the fields of government and commerce about which you should know. Straightforward discussions of religious issues alert you to matters of vital concern. Customs and people in many lands, the marvels of creation, practical sciences and points of human interest are all embraced in its coverage. "Awake!" provides wholesome, instructive reading for every member of the family.

"Awake!" pledges itself to righteous principles, to exposing hidden foes and subtle dangers, to championing freedom for all, to comforting mourners and strengthening those disheartened by the failures of a delinquent world, reflecting sure hope for the establishment of God's righteous new order in this generation.

Get acquainted with "Awake!" Keep awake by reading "Awake!"

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Awake!

"It is already the hour for you to awake."

—Romans 13:11

Volume LV

January 8, 1974

Number 1

The GROWING OIL CRISIS

THE "lifeblood" of every industrial nation is OIL, that is, petroleum. Without it many homes would go unheated in winter. There would be no gasoline for automobiles, trucks and tractors, or fuel for airplanes.

A host of electric appliances would not function without oil. Lights, ovens, washing machines, air-conditioners, television sets and many others would shut off. Why? Because much of the electricity used in the world today comes from generators fueled by oil.

Most machines depend on lubricants made from oil. Too, without oil a wide range of products would be affected. These include paints, plastics, synthetic fibers and rubber, fertilizers and others. Their production involves the use of oil.

Truly, if oil were no longer available, the economies of the industrial nations would grind to a halt in a matter of months! Even serious shortages would be severely damaging, as has been evidenced by what has happened since the Arab lands have cut down the amount of oil they were supplying other nations.

Which industrial nations are especially hard hit? An American official states: "An energy crisis of unprecedented dimensions today grips the whole world. It hits hardest at advanced industrial lands dependent on the Middle East as prime source of oil, among them the United States, Japan and the nations of western Europe."

But why the crisis? Aside from the Arab cutoffs, was the world running out of oil? Would there still have been a shortage? Why are the Western nations and Japan so affected, and not the Communist lands?

Is Oil Running Out?

First of all, is the world's supply of oil running out? No, there is not really a shortage of oil on this planet, as of now. True, if present usage continues, someday it could conceivably run out. But that is not the case now, for proved reserves are more than enough for the industrial nations for quite a few years yet.

However, there is indeed an oil crisis. One reason centers on the *availability* of

the oil. In some places it is being used faster than new oil can be pumped out of the ground and refined into its various products. Any nation that uses more oil than it produces will have a problem. And the world is using it so fast that at times it has trouble getting enough from various sources. *Time* magazine says: "The world's consumption of oil is increasing by 8% a year, and U.S. consumption, now nearly 40% of the total, is rising by 8.7%."

This leads to the more fundamental problem: the largest oil users are often the ones that do not have large supplies within their borders. They are more often 'oil poor,' not having enough reserves within the ground that they can tap. The western European nations have hardly any oil pools at all within their borders. Japan has very little. And the United States has far less than it needs, with its oil fields tapering off due to overuse for many years.

So there is enough oil still under the ground to last large users such as western Europe, Japan and the United States several decades. But because they are using it so fast, and because the large reserves they need are not found within their borders, they have the problem of trying to get it from where it is available. That is not so easy.

Other Energy Sources?

However, are there not other sources of energy that the industrial nations of the West and Japan can use instead of oil? Why not atomic energy, natural gas, coal, water power, or even solar (sun) energy?

Such other energy sources have been used, or are under development. But none of them can fill the gap in energy requirements for the next ten to fifteen years at least. The demand for energy rises so fast that these other sources simply cannot provide enough at present. They can only supplement the use of oil, not replace it.

For instance, atomic energy has been hailed as a future major energy source. But it is not that as of now. Scientists do not expect it to be for at least another decade or two. Also, atomic energy is mainly used as a fuel for generators to make electricity. But can it fuel automobiles, tractors, airplanes? Not in the near future. So while atomic energy can generate electricity, and is doing so on a relatively small scale now, it does not solve the energy problem that exists today and that will worsen in the next few years. Also, there is the problem of radiation pollution that may jeopardize its use on more than a limited scale.

How about coal? Coal is abundant in many areas. It can be used as a fuel to turn generators making electricity. It can also be used for heating homes and in other ways. But to use it in such things as automobiles it must be converted to a liquid fuel. This is an expensive process. Oil is cheaper. Also, coal is generally regarded as a "dirty" fuel, a greater pollutant than "cleaner" oil. For this reason, in some areas where pollution standards have been set, it is not possible to use coal.

But is there not talk of large amounts of oil-containing rocks (known as shale) in the western United States? Also, how about the oil-containing sands of Canada? There is said to be billions of barrels of oil locked into those rocks and sands. True, but the cost of getting the oil out is far greater than the cost of merely pumping it directly from the ground. Entire industries would have to be developed to process the huge quantities that would be needed. It is not at all likely that this can or will be done in time to satisfy the growing demand for fuel.

What about water power? The building of dams along rivers harnesses the mighty power of water. But this is principally as a source of generating electricity. The de-



scending water turns generators that make electricity. But such a source of energy is limited. It cannot fuel automobiles. It cannot provide lubricants for the machinery of industry. Also, in many lands the use of rivers and dams even for the generation of electricity is limited. That is why water power contributes only a small part of the total energy produced today. It will contribute an even smaller proportion in the near future as the energy demands soar.

Natural gas is also a desired energy source. But the nations of western Europe and Japan have little. In the United States, natural gas production is not likely to increase much, as new fields are harder and harder to find. Yet it is in these particular nations that the demand for energy fuels leaps ahead.

Is solar energy, the energy that can be harnessed from the sun, the answer? Someday—perhaps. But surely not in time to meet the growing crisis now.

Thus, to repeat—there are oil shale, oil sands, water power, natural gas, coal, solar energy, even wood—yet none of these energy sources can take the place of oil during the time of crisis now and in the near future. The industrial nations are simply too locked into oil use to be able to make the vast, rapid and very expensive changes to another fuel in the next ten to fifteen years, even if it were somehow possible.

The Dilemma

However, since there is enough oil somewhere on earth, could the nations simply

pump it up faster to meet demand? There is no assurance that they could. Why not? Because the oil needed, especially by western Europe, Japan and the United States is not theirs to control. That is the real problem.

As noted previously, Japan produces only a small amount of oil. Western Europe produces very little, although oil fields now being developed in the North Sea will help somewhat. But these North Sea fields are not expected to produce enough in the next ten years to supply anything but a fraction of the demand. In the United States, its oil fields are now producing at peak capacity. And the oil is being used up faster than new oil-producing areas can be found. Not even the incoming Alaska oil fields will make enough of a difference in the 1970's. That Alaska production will be far more than offset by growing demand.

Thus, a leading company in the oil industry states: "The U.S. . . . faces a critical oil-and-gas supply problem from now to about 1985." And it adds: "We are not alone in this critical supply problem for the next 12 to 15 years. Europe and Japan are facing the same problem." The *New York Times* also says:

"In the 1970's a new common danger threatens the industrialized societies of Western Europe, North America and Japan. . . . "Talk of an energy crisis is now commonplace in all the major industrial capitals. . . . "A committee of the European Parliament warned that the lights could go out 'quite literally' by 1980 if conclusive steps to coordinate energy sources are not taken immediately."

Huge Imports Needed

What all of this means is that these industrial nations are required to import huge amounts of oil. And in the immediate future they will have to import far more. As *U.S. News & World Report* comments: "Only imports keep the lights burning and machines running."

For example, Japan uses about 5,000,000 barrels of oil every day. It has to import practically *all* of that! Of those imports, about 90 percent come from the Middle East. It is estimated that by 1980 Japan could be using as much as 13,000,000 barrels a day. Nearly all of that, too, would have to be imported, mostly from the Middle East.

Western Europe uses about 15,000,000 barrels of oil a day. Nearly all of that is imported. About 80 percent of these imports come from the Middle East and North Africa. If oil usage there continues to grow, experts assert, by 1980 western Europe would be using 26,000,000 barrels a day, mostly imported. Even the North Sea oil fields now being developed could, according to most estimates, provide only about 3,000,000 barrels a day by 1980. The rest would have to come mostly from the Middle East and North Africa.

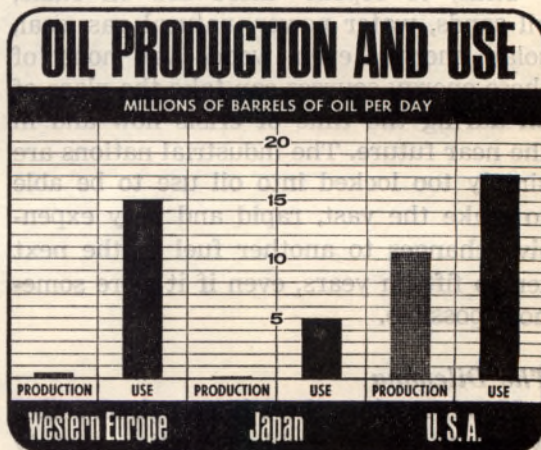
The United States produced less than 11,000,000 barrels of oil a day in 1973. But it used more than 17,000,000 barrels a day! So it had to import over 6,000,000 barrels each day to make up the difference. Thus, in 1973 it imported about 35 percent of its oil. And domestic production is expected to decline in the future as its own oil fields are 'running down' from long usage.

For the United States, the situation, if it continued, would become far more serious by the end of the 1970's. By 1980, some authorities estimate, the nation would be using about 27,000,000 barrels of oil each day. Of that, about 15,000,000

would have to be imported—over 55 percent! By 1980, it is claimed, production in the 'lower 48' states would drop to about 10,000,000 barrels a day. Some 2,000,000 barrels a day would come from Alaskan oil fields, leaving the 15,000,000-barrel deficit. Most of that would have to come from the largest supply available, the Middle East and North Africa.

During the winter of 1972-73 Americans had problems getting enough heating oil due to shortages. The result was that some factories and even schools temporarily closed down. Also, in the summer of 1973 some had difficulty getting enough gasoline for their automobiles. Europeans had similar problems. So even before the Arab cutoff of oil to the United States the fact of the matter was just as the Los Angeles *Herald-Examiner* reports: "The U.S., which currently has no spare oil production capacity, is becoming increasingly dependent on foreign oil." And the New York *Times* adds:

"There is general agreement in industry and government that Western Hemisphere sources will be unable to expand their shipments to the United States significantly and that the bulk of the future increases in crude oil imports will have to come from the Eastern Hemisphere sources in the Middle East and Africa."



Canada, a major supplier of oil to the United States, is also having its problems. So it may soon have to curtail its oil and gas exports. The *Toronto Star* relates:

"Canada faces a return to the era of the horse and buggy and the dirty coal furnace unless we protect our [oil] resources against rapid depletion by the energy-hungry United States, warns Toronto geophysicist J. Tuzo Wilson, one of the world's most distinguished scientists.

"Demands on dwindling supplies of oil and natural gas could plunge North American civilization into a desperate crisis within 10 years, he says . . .

"The demands for gas and oil are so insatiable and rising so rapidly that it is clear that Arctic petroleum reserves offer no long-term solution to the problem of energy supplies," writes Wilson."

Thus, like it or not, North America, western Europe and Japan will have to import more and more oil from other countries, and in gigantic quantities. This creates several huge problems. One is because the only proved sources of such vast oil deposits are in two places generally unfavorable to those nations.

The first location is in the Arab and Moslem lands of the Middle East and North Africa. The second-largest proved oil reserve is found in the Soviet Union. This means that the Communist and Arab-Moslem lands control the largest oil sources on earth. And we have seen what can happen to those sources since the latest Arab-Israeli war.

Yet, the location of these oil reserves poses not only political problems, but also enormous financial ones for the nations buying the oil. How so?

Staggering Costs

The cost of imported oil to the United States, western Europe and Japan is already gigantic. They are paying billions of dollars a year for this oil, principally to the producing countries of the Middle East and North Africa.

Even if the price of oil stayed the same, the increased volume needed by the industrial nations that are short would cost them a growing fortune. But the price of oil has not stayed the same! It has been going up sharply, more than double what it was a few years ago. And everyone expects the price to keep going up, since the demand for oil grows by leaps and bounds.

That is why authorities state that, no matter what happens, the price of energy in all its forms, especially oil, is bound to go up in the future. The days of cheaper fuels, of low-priced gasoline for automobiles, are gone.

Because of the much higher costs, and growing needs for imports, the consuming nations have to pay out more and more money to buy the oil. This worsens the deficits in their balance of payments with other nations. In other words, they spend more than they are able to make. This increased spending of such vast sums is bound to heat up the already bad inflation in those nations. It pushes higher the prices and costs of many things, not just oil. This is because people who use oil products pay higher prices, and they will eventually demand higher wages to make up for it. Higher wage costs make manufacturers increase the price they charge for their products. So the higher and higher cost of oil fans the flames of what is already bad inflation.

The United States, the foundation of the Western world's economy, has already been having grave problems with its balance of payments. For many years the country has been spending more money than it has made overseas, going farther and farther in debt to other nations. The payments it will have to make for rising oil imports will worsen the situation.

To illustrate: during 1973 it is estimated that the United States spent about \$7 bil-

lion for oil imports. By 1975 economists expect this to rise to \$15 billion. By 1980, says James Akins, American ambassador to Saudi Arabia, the cost of imported oil "would be more than 40 billion dollars a year in outflow." Such staggering payments would be very difficult to make. Few experts think that the United States would be able to export enough products to pay for all of that. It becomes apparent, then, why the oil problem is called a crisis.

The situation is not much different for Canada, western Europe and Japan. All those nations will have growing difficulty paying for the staggering quantities of oil they will have to import in the years just ahead.

Yet, what if these nations are not able to pay for that oil, or for some reason supplies are curtailed? Then the industrial way of life of North America, western

Europe and Japan, as we know it today, will be drastically *changed*.

Since the Soviet Union has large reserves of oil, it is not confronted with such shortages. It, together with Romania's smaller oil fields, can supply the Communist nations of eastern Europe. So the Soviet Union and its friends are in a good position. So also the Arab and Moslem nations of the Middle East and North Africa, and their friends.

But that is not the case with North America, western Europe and Japan. They already have a problem getting enough oil, and that problem can only grow in the next few years. What it really means is that every person living in such countries will have his life affected one way or another. The cost of things, the entire way of life of those nations, will never be the same again.

What Do You Know

about

Prayer?

PRACTICALLY everyone prays, though some persons do not do so very often. Many times prayer is reserved as a last resort—for use after all else has failed.

For example, during World War II it was said, "There are no atheists on life rafts." When the airplane was down in the sea, the radio was dead, land was a thousand miles away, provisions were almost gone, and no help was in sight—when all other sources of aid had been exhausted—then men raised their eyes and prayed.

But is that what prayer is all about? Is prayer a last resort, to be dug up from

the back of the mind after all else has failed?

That is not what Biblical prayer is all about. The Bible presents prayer as the means by which we should frequently speak to God—not just when in desperate straits. It is a way to ask his blessings, and also to give our thanks for provisions he has made—both spiritual and material.

Prayer is based on the conviction that God exists, hears and answers. In the Bible he is called the "Hearer of prayer." (Ps. 65:2) The Bible shows that God is approachable by man. We should expect God to listen to proper prayers, for he himself tells his people to pray, and his Word gives many examples of acceptable prayers. (2 Chron. 7:12-16) It tells us that Jesus, by both word and example, showed the necessity of praying.* If the Son of God recognized such need to pray, how much more do we need to do so.

The act of praying to God implies a closeness to him. A leading Bible dictionary points out concerning early Bible times: "The devout Israelite of that day believed deeply in God, and was perhaps more closely conscious of Him" than are many persons today.—*A Dictionary of the Bible*, James Hastings, Volume IV, page 41.

The faithful Israelites knew that Jehovah really exists, and acted in their behalf. The psalmist, confident of Jehovah's direction and help, sang: "Make me know your own ways, O Jehovah; teach me your own paths. Make me walk in your truth and teach me, for you are my God of salvation. In you I have hoped all day long." "God is for us a refuge and strength, a help that is readily to be found during distresses." (Ps. 25:4, 5; 46:1) The Christian apostle Paul said: "In fact, [Jehovah] is not far off from each one of us."—Acts 17:27.

What Prayers Are Answered?

That proper prayer is answered is an accepted Bible truth. However, the Bible is equally as emphatic that *not all* prayers are answered.

Many persons pray for wrong reasons—to win a prize at a raffle or in a contest,

* For examples, see the following Biblical passages: Mark 1:35; 14:35, 36; Luke 6:12; 11:1; 23:46; John 17:1-26.

to get a big business order, or to win a bet or a sports contest. Is it any wonder that such prayers are not answered?

The disciple James reminded: "You do ask, and yet you do not receive, because you are asking for a wrong purpose, that you may expend it upon your cravings for sensual pleasure."—Jas. 4:3.

Practicers of non-Biblical religions often consider their worship to be a sort of "magic" that gets their god to do whatever the worshiper wants. But the Creator is not like the fabled jinn of Aladdin's lamp, waiting to do man's bidding.

It is true, of course, that Jesus told his followers: "If you ask the Father for anything he will give it to you in my name." (John 16:23) However, Jesus was speaking to his followers. The things for which they would ask were limited by what they had learned from him, and by their knowledge of God's purposes.

"Anything" clearly did not include things they knew, or had reason to believe, were not pleasing to God, or things that were not in harmony with his will. If our requests are to be granted, they must please God. We must not request unrighteous things, or those contrary to God's revealed will. The apostle John stated: "This is the confidence that we have toward him, that, no matter what it is that we ask *according to his will*, he hears us."—1 John 5:14.

But, on occasion, even prayers by God's servants are not answered. Moses' prayer to enter the land of Canaan was not. King David's prayer in behalf of Bath-sheba's child went unheeded. The apostle Paul's prayer to be delivered from his "thorn in the flesh" went unanswered. To be heard, prayers must be in harmony with God's purposes! So, then, even failure to understand God's purpose in a matter can re-

sult in an unanswered prayer.—Deut. 3: 23-27; 2 Sam. 12:16, 22; 2 Cor. 12:7-9.

To be acceptable to God, prayers must be through the channel he recognizes. Jesus said: "No one comes to the Father except through me." Jesus also said prayers should be presented 'in his name.' (John 14:6; 16:23) Thus, our prayers should acknowledge that the value of the sacrifice of Jesus' own human life makes it possible for us to approach God in prayer, and that there is just "one mediator between God and men, a man, Christ Jesus." —1 Tim. 2:5.

Other Requirements

Also, for our prayers to be answered, we must be obedient to God. The book of Proverbs reminds: "He that is turning his ear away from hearing the law—even his prayer is something detestable." When the people had been disobedient to God, the prophet Jeremiah wrote: "When I call for aid and cry for help, he actually hampers my prayer."—Prov. 28:9; Lam. 3:8.

One reason for Jehovah to withdraw his favor was stated to ancient Israel. It also applies to Christendom today. God said: "For the reason that this people have come near with their mouth, and they have glorified me merely with their lips, and they have removed their heart itself far away from me, and their fear toward me becomes men's commandment that is being taught."—Isa. 29:13.

Today Christendom's churches come near God with their mouths, and glorify him with their lips, but their hearts do not motivate them really to conform to his ways. For example, they push aside the Bible's high moral standards, and accept with approval persons who practice fornication, adultery and homosexual acts—all forbidden in the Scriptures. (See Leviticus 18:22; 1 Corinthians 6:9, 10.) Further,

they teach 'men's commandments' as doctrines. Among these are their teachings about the immortality of the soul, and torment in hellfire, as well as other pagan doctrines they have adopted from non-Biblical human sources.*

In view of Jehovah's words through Isaiah, only persons who return to Jehovah's ways and his teachings, thus drawing their hearts toward him, can expect their prayers to be heard favorably. The apostle John wrote: "Whatever we ask we receive from him, because we are observing his commandments and are doing the things that are pleasing in his eyes." —1 John 3:22.

What Position to Assume

No special position while praying is more "holy" than another. The Bible tells of people standing to pray, raising their hands toward heaven, kneeling, and even prostrating themselves, face down to the earth, as subjects prostrated themselves before a king. Some positions show humility, but the many different circumstances in which prayers were offered in Bible times show that no specific position, either of the hands or the body, is required.—Mark 11:25; 1 Ki. 8:22; Luke 22:41; Neh. 8:6.

While the position of our body is not important, our mental attitude is. Earnestness of heart is a requirement if our prayers are to be favorably heard by God. "Come back to me with all your hearts," Jehovah said. (Joel 2:12, 13) Before him we have no claim of merit, no ground for self-congratulation, no right to demand. His kindness is not something we deserve.

* For the Bible's teaching on whether the soul dies, and whether man is conscious to suffer after death or not, see Ezekiel 18:4, 20 and Ecclesiastes 9:5, 10. These and many other points on which modern religious doctrine and the inspired Bible disagree are discussed in the book *The Truth That Leads to Eternal Life*.

Jesus approved the humble tax collector who said simply: "O God, be gracious to me a sinner."—Luke 18:9-14.

Where and When Can You Pray?

Examples related in the Bible show that prayer may be offered from any place, at any time. The Hebrews understood that "Jehovah is near to all those calling upon him, to all those who call upon him in truthfulness."—Ps. 145:18.

Abraham's servant prayed when he happened to be by a well in Mesopotamia. Daniel prayed in his room. The apostle Peter prayed alone, on the flat roof of a Middle Eastern house. Jesus prayed publicly, privately, in the quiet of the garden of Gethsemane, and on a mountain.—Gen. 24:10-14, 26, 27; Dan. 6:10, 11; Acts 10:9; Matt. 26:36; Mark 6:46.

A silent prayer can be offered in the presence of others, though unknown to them. Abraham's servant prayed silently, "speaking in [his] heart." Hannah prayed "speaking in her heart," so "her voice was

not heard." Thus, God can hear our silent prayers.—Gen. 24:45; 1 Sam. 1:13.

These examples show that a close communion with the Creator is possible. There is no need of an appointment to approach God in prayer. No schedule needs to be adhered to. We can pray at any time. David kept calling to Jehovah "all day long." The apostle Paul encouraged: "Be persevering in prayer"; "pray incessantly."—Ps. 86:3; Col. 4:2; 1 Thess. 5:17.

Develop a warm appreciation of the privilege of prayer. Sense the spiritual strength it provides. The privilege of prayer should never be taken lightly. It is not to be reserved as a last resort, to be employed only when all else has failed. Instead, prayer should be a part of your daily life. Private prayer, family prayer and congregational prayer will strengthen you in these troubled times. Speaking to God through prayer brings his peace, promotes the flow of his holy spirit, and helps us to be confident of his blessings for an eternal future of life in his righteous new order.

Prayers That Resulted in a United Family

● At times a person's situation may look hopeless. Yet the prayers of honest-hearted ones have led to their finding joy in true worship. A woman from Chicago, Illinois, relates:

"My husband began to drink heavily and, under the influence of alcohol, he began to beat me and the children. Things got so bad that I thought I was going to lose my mind. One day while I was very depressed, I prayed to God, saying: 'O God, please help me, because I'm about to lose my mind.'"

That same week Jehovah's witnesses called on her, but, thinking they were fanatical, she turned them away. Later, however, this woman obtained one of their Bible study aids, "*Things in Which It Is Impossible for God to Lie*." She read it in one night and recognized it to be the truth. Seeing the woman Witness who had left her the book, on the street, she asked her to call. This led to her becoming a baptized witness of Jehovah. But for a number of years thereafter she experienced physical and mental abuse from her husband. All during this time she continued praying to God for strength. Finally, through her fine example in Christian conduct, her husband began to change. Now the whole family is united in true worship.

Our Mysterious Universe

A FEW years ago, astronomers thought they understood the heavens quite thoroughly. Earth's physical laws seemed adequate to explain distant phenomena. But today they are not so confident. There is more and more talk about 'new laws of physics.' Why?

Baffling new mysteries have presented themselves. The problem of solving these is not entirely due to lack of information. Actually, voluminous amounts of astronomical facts have been accumulated. There is uncertainty, however, as to their meaning. Yet, this should not be too surprising when one considers the enormous size of the universe.

The sun, central part of our solar system, is over ninety million miles from the earth. But this solar system is itself only a tiny fraction of the Milky Way Galaxy, which measures some 100,000 light-years across. (A light-year is almost six trillion miles!) This entire galaxy might contain another 100 billion suns. And yet the whole universe may have that many galaxies. Yes, the "edge" of the universe is possibly a staggering twelve billion light-years away!

Astronomers are finding that the whole universe is laced with dilemmas for them. Consider, for instance, our own small corner of this universe, our solar system.

Mysteries in Our Solar System

The solar system of which our earth is a part has always presented mysteries.

Though the ancients had some knowledge of the motions of the heavenly bodies, many theories have changed. Ptolemy, about 150 years after Jesus' birth, taught that the motionless earth was the center of the universe. His error stayed largely unquestioned until the time of Polish astronomer Nicolaus Copernicus (1473-1543). The sun, he argued, not the earth, is the center of the solar system.

But there was more to be learned. Not until 1781, with the discovery of Uranus, was it known that there are more than six planets in our own solar system. Neptune was not found until 1846. And Pluto was first actually sighted down in fairly recent times, in 1930. But today, do men really understand our solar system? Is it now free from mystery?

Some authorities assert that there may be another, a *tenth* planet in our solar system. One astronomer predicts its existence on the basis of Halley's Comet. He believes that an unknown planet exerts pull on the comet, causing it to have an ever-widening orbit around the sun and accounting for a "delay" of a few days in its appearance every seventy-six years.

Then there are asteroids. These are hundreds of small bodies, minor planets that float between Mars and Jupiter. From where did they come? No one knows for sure. Current theory says that they are the material for a planet that never formed. Asteroids are called one more "mystery of the skies."

So, even now, knowledge of our own solar system remains unsure. Understandably, Zdenek Kopal in *The Solar System* (1973) admits: "Most of our knowledge of the solar system has been acquired so recently that a book on this subject written only ten years ago would read like Latin or Greek in comparison."

But there are even larger mysteries shaking some long-cherished theories.

Quasars, Pulsars and "Black Holes"

Says *Worlds Beyond Ours*: "Of all objects in the sky none have proven so perplexing and troublesome as the mysterious sources of energy known as *quasars*." What are quasars?

"Quasar" is a shortened name for quasi-stellar radio sources. (Quasi-stellar, derived from Latin, means 'as if a star.') When first observed in 1960, quasars were dubbed with this name because it was thought that they were distant stars. Soon, however, it was evident that they were something else. Now they are often considered small galaxies. Many books just call them "objects." But what makes them outstanding?

The tremendous amount of energy that quasars produce for their relatively small size. Some radiate about 100,000 billion times as much light and energy as our own sun. This would be like a flashlight that shines as brightly as a large metropolitan city!

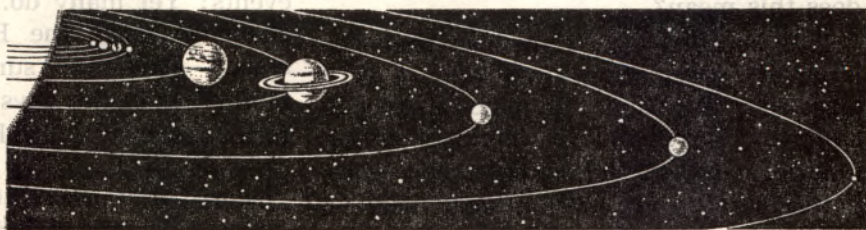
Then, too, there is quasar speed. All galaxies are believed to be rushing away from one another at fantastic speeds. But some quasars are thought to be moving away at even greater speeds. They are

usually considered to be the farthest material thing from the earth, maybe even twelve billion light-years away. How are such estimates made?

On the basis of what is called "red shift." Light appears to travel in a wave-like pattern. As it passes through a prism, longer waves produce a deep-red color; the shorter ones are bluish. The process of "red shift" may be illustrated with a train whistle. As a train approaches you (causing the sound waves to shorten), the whistle's pitch seems to rise. However, after passing (and as the sound waves lengthen), the pitch drops. Light waves behave in a similar way. According to the "red shift" rule, objects leaving the earth have a longer wave length and so produce an increased amount of red shift. On this basis, quasars are thought to be the most distant objects in the universe. But there is still more to the quasar mystery.

To some experts, they imply contradictions to Einstein's theory, on which most views of the universe are based. His theory says that nothing in the universe can travel faster than the speed of light. Yet some scientists claim to have found that parts of one quasar are traveling away from each other at *ten times the speed of light!*

Rather than say that Einstein is wrong, many now argue that it is the red-shift rule that is in error. One argument says that quasars are really closer than they appear and that their red shift results



Astronomers say there are nine planets in our solar system. Is there also a tenth one?

from 'spectral tricks.' Another claims that the weight of quasar material has changed through millions of years, giving a misleading red-shift impression. Nevertheless, a few astronomers are willing to accept the possibility that Einstein's theory, if not wrong, is incomplete.

The debate goes on. What are the mysterious quasars? No sound answers have come forth. The mystery only intensifies. But other heavenly phenomena also baffle scientific brains.

There are pulsars, for instance. These are generally thought to be neutron stars that emit periodic bursts of radio "noise." So unexpected was their discovery back in 1968 that even experienced, well-educated astronomers at first speculated that the signals pulsars put out might be from men living in another world trying to contact ours.

Then, too, there are questions about mysterious X-ray sources and so-called "missing matter" in space. Perhaps, goes current speculation, clouds of matter in space are absorbed by "black holes." What does this mean?

It is believed—and remember that this is largely speculation—that when a very large star "burns out," its inner atoms collapse under tremendous weight, resulting in a dense object. Yet, so the theory goes, it retains a strong gravitational field; no light can escape. It is theorized that matter from companion stars is absorbed into

this "black hole." Does this matter then go 'someplace else,' into a system of anti-matter, scientists ask? Even the question seems mysterious. And men have no answer.

Are "new laws of physics" really needed to answer the questions raised in the last few years? Some say so. But D. W. Sciama

of Oxford says that a new discovery usually does not call for a "new law" but "usually shows that we have failed to work out some of the consequences of the laws already known. The unexpected discovery of radio galaxies, and of the quasi-stellar objects... are probably examples of such failures. As such they are dramatic reminders of the enormous gaps in our understand-

ing of the behaviour of matter in bulk [such as stars, galaxies, and similar heavenly matter]."—*Modern Cosmology*, 1971.

The Bible and Astronomy

Since there are "enormous gaps in our understanding of the behaviour of matter in bulk," why should men question what the Bible says about certain astronomical events? Yet many do. Some persons will challenge what the Bible says, for instance, about the sun and moon being motionless in the days of Joshua. Do you recall that event? The Bible account reads:

"Joshua proceeded to speak to Jehovah on the day of Jehovah's abandoning the Amorites to the sons of Israel, and he went on to say before the eyes of Israel: 'Sun, be motionless over Gibeon, and, moon, over the



There may be 100 billion galaxies in the universe. Do laws of earth's physics apply the same way in all these galaxies?

low plain of Aijalon.' Accordingly the sun kept motionless, and the moon did stand still, until the nation could take vengeance on its enemies. Is it not written in the book of Jashar? And the sun kept standing still in the middle of the heavens and did not hasten to set for about a whole day. And no day has proved to be like that one, either before it or after it, in that Jehovah listened to the voice of a man, for Jehovah himself was fighting for Israel."—Josh. 10:12-14.

Even some religious persons have questioned this account. The *New Catholic Encyclopedia* states: "In terms of modern science and modern theology it is just as impossible for God to obey man as it is for the sun to stand still." (1967; Volume XIII, page 795) But on what basis can solar behavior be called "impossible"? No human, of course, not even one who believes the Bible, can definitely explain how the sun stood still. But should that shake one's faith in the Bible? No. As we have seen, men today do not understand the mysterious astronomical events taking place *right now*. But who can deny that they *do* take place? No one.

God could, as Creator, if he wished, stop the motions of the whole solar system. Or, he could stop the motion of only the earth so that sun and moon appeared to remain in the same position as viewed from the earth. On the other hand, it is possible that the sun, moon and earth all continued on in their regular movements, but that the *light* from sun and moon ceaselessly shone by some form of refraction that we do not now understand. In any event, this was a truly unique event, for the Bible says that "no day has proved

to be like that one, either before it or after it, in that Jehovah listened to the voice of a man."

The simple reasoning of Henry Cooke in the last century is still valid regarding this Biblical event:

"Were even philosophers better acquainted with the causes of the annual and diurnal [daily] movements

of the heavenly bodies, they would be better able to judge of this miracle. Though all miracles are alike easy to Omnipotence, it may still be fact, that some order of exceeding simplicity effected what appears so stupendous to our eyes. Something perhaps more simple than the stopping of the pulsation of the heart, . . . Had syncope, or fainting, never been witnessed but once some thousands of years ago, it would appear as incredible to modern physiologists as the standing still of the sun to infidel philosophers."

The humble person knows that the question that Jehovah God asked Job is still proper: "Have you come to know the statutes of the heavens?" The answer is still, No! (Job 38:33) Such a person is overwhelmed at the thought that the Maker of the vast heavens even condescends to deal with men. Said the Bible writer David: "When I see your heavens, the works of your fingers, the moon and the stars that you have prepared, what is mortal man that you keep him in mind, and the son of earthling man that you take care of him?"—Ps. 8:3, 4.

Such humble persons will take time to learn about this marvelous God. And, rather than challenge Him or His Word, such one will seek to harmonize his own life with God's changeless standards.

- **Where Is Your Money Heading?**
- **Hormones as Medicine.**
- **When Fuel for Heating Runs Short.**

—In the next issue.

Is **BUDDHISM** *the Way to Enlightenment?*

BUDDHISM developed in Asia, and most adherents to it are still on that continent. But interest in Buddhist teachings has been increasing in other parts of the world in recent times. Many look to it as a way to "enlightenment."

Buddhism is based upon the person and teachings of Siddhartha Gautama, who became known as "Buddha" (meaning "Enlightened One"). Siddhartha was born into a royal family in India in the sixth century B.C.E.

While still a young man Siddhartha became disturbed over the fact that sickness, suffering, old age and death are the common lot of everyone. He determined to abandon his royal surroundings and to become a wanderer in search of truth.

For six years Gautama practiced extreme self-denial. During this time he spoke with many teachers and philosophers but could not gain satisfying answers as to why life seemed to be so filled with unpleasantness. What would he do?

Gautama had grown up as a Hindu and was familiar with yoga, which includes exercises by mental concentration. He decided to search for the truth by means of meditation. To that end he sat down under a large fig tree called a bo tree. Here he claimed to have become enlightened, this making him a Buddha.

"Enlightenment" About What?

What was Buddha enlightened about that has attracted so many followers for



centuries? To answer that question, let us consider some background information about the people of India in the sixth century B.C.E.

A scholar of Buddhist writings, Professor T. W. Rhys Davids, points out:

"The country was politically split up into little principalities, most of them governed by some petty despot, whose interests were not often the same as those of the community. . . . A convenient belief in the doctrine of the transmigration of souls satisfied the unfortunate that their woes

were the natural result of their own deeds in a former birth, and, though unavoidable now, might be escaped in a future state of existence by present good conduct. [They were] hoping for a better fate in their next birth."

Buddha himself was influenced by that belief in transmigration of souls after death. He developed a complicated philosophy based upon it. In general, Buddhists believe that rebirth can take place in five different states: (1) in hell (there are eight hot hells, eight cold hells and other minor hells); (2) as an animal; (3) as a "preta" (a ghost with a small mouth and big belly, tortured by hunger and thirst); (4) as a human; (5) as a god. Of course, certain groups may list these various "states" somewhat differently.

Thus Buddha believed that all things were constantly going through a cycle, changing from one state to another. He considered nothing permanent. Buddha expressed his view of life as follows:

"Birth is suffering; decay is suffering; death is suffering; sorrow, lamentation, pain, grief, and despair are suffering; not to get what one desires is suffering."

Buddha's enlightenment had to do with how to escape from the endless cycle of rebirths. How would that be possible?

By recognizing the "Four Noble Truths," which may be summarized as follows: (1) All living is painful; (2) Suffering is due to craving or desire; (3) When desire ceases there comes a release from suffering; (4) The way to release from suffering is to follow the Noble Eightfold Path consisting of four ethical precepts—right speech, effort, conduct and work—and four mental precepts—right views, hopes, attentiveness and contemplation.

So it is desire, in Buddha's opinion, that links a person to the chain of rebirths. To escape from it one must extinguish all desire for things pleasing to the senses. All craving for life as we know it must be suppressed. Meditation was viewed as a means to that end.

The Way to Nirvana

The kind of meditation that he advocated involves concentrating all of one's attention on a single object, a certain part of the body or perhaps on a phrase or riddle. In time, the mind empties of all other thoughts, feelings and imagination. Through such meditation some have even developed "superhuman qualities" or abilities, including levitation, ability to project an image of themselves to a distant place and mental telepathy. It is said that one meditating can get to a point in which he is indifferent to pain or pleasure and no longer desires life or any of the pleasures associated with it. At this point he is said to become free of the necessity of rebirth. He has reached Nirvana. What is that?

Professor of Sanskrit Walter E. Clark explains that Nirvana is a state which "cannot be reached or described by hu-

man knowledge and words." It is "utterly different from all things in the knowable world." Does that sound desirable to you? Would a state in which you are neither aware of life nor desire it help you to cope with the problems you face in life?

Does Buddhism Satisfy

Man's Spiritual Need?

Man has an inborn need to worship God. That is why he has always had some form of religion. Can Buddhism satisfy man's spiritual need? Can it answer his questions about how the universe came about, how life came to be upon earth, why wickedness exists and whether it will ever end?

Concerning the origin of the universe, Buddha said: "The origin of phenomenal existence is inconceivable, and the beginnings of beings obstructed by ignorance and ensnared by craving is not to be discovered." Buddhist writings say that the universe evolved from the dispersed matter of a previous universe that wore out. In time Buddhists expect that the present one will dissolve and that out of it will arise another.

Zen Buddhist expert Daisetz T. Suzuki emphasized:

"To us Orientals . . . there is no God, no creator, no beginning of things, no 'Word,' no 'Logos,' no 'nothing.' Westerners would then exclaim, '*It is all nonsense!*' It is absolutely unthinkable!" Orientals would say, '*You are right.* As long as there is at all a "thinking" you cannot escape getting into the dilemma or the bottomless abyss of absurdity.'" [Italics ours]

How do you feel about that? Do you wish to believe in something that is admittedly "nonsense" if a person uses his thinking ability? In your own experience have you found that thinking leads only to "dilemma or the bottomless abyss of absurdity"? Are you more successful in coping with the problems of life when you refrain from thinking? Is it really enlightenment to say there is no Creator and to

believe in an unprovable theory of evolution? Such a philosophy could never satisfy your spiritual needs. In fact, it failed to do so even for followers of Buddha in ancient times.

Professor Albert S. Geden explains:

"The human craving for an ideal or idealized object of love and homage was too strong. . . . The desire was met, and found its satisfaction, in the deification [after his death] of [Buddha] himself; . . . With him were reintroduced the Hindu deities, or the more important and popular of them. But they were always subordinated in attributes and power to the Buddha. And thus a system in theory deistic became a practical polytheism."

Toward the beginning of the Common Era images of Buddha made their appearance. The simple places of Buddhist devotion were changed into elaborate temples. Some of these temples also contain images of the Hindu gods Vishnu, Siva and Ganesha. Buddha's refusal to enlighten his followers about God left a vacuum that was filled by his own deification and by adopting gods and practices of other religions.

What about guidance for everyday life? Buddhism does contain some moral precepts. There are, for example, the "five precepts" against killing, stealing, adultery, lying and drunkenness. But moral precepts alone are not sufficient. People need a reliable guide for making everyday decisions. Where do many Buddhists turn for such guidance? Professor L. A. Waddell observes:

"Divination is sought after by the majority of professing Buddhists in matters of almost everyday business, as well as in the great epochs of life—birth, marriage, and death—or in sickness. . . . The Burmese, who may be taken as a type of the [conservative] 'Southern' division of Buddhists, are fettered in the bonds of horoscopes and witch-doctors."

Buddhists, like everyone else, have a need for spiritual guidance on matters. Because

Buddha's philosophy does not fill that need, they resort to divination.

What About Hope for the Future?

Does Buddhism offer any hope for the future? Buddhists divide an epoch of evolution and destruction of the universe into four "incalculable" periods. Buddha spoke of the length of one of these in this way: "Suppose a mountain of iron to be touched every hundred years by a muslin veil; the mountain will be destroyed before the Incalculable is at an end." After four of these "incalculable" periods the whole cycle starts over again. So, according to Buddhist belief, evil and suffering have always existed and will continue forever as a part of recurring world cycles.

What about Nirvana as a hope? This, too, is questionable. Why so? Because Nirvana is supposed to signify that one has reached the end of one's cycle of rebirths. Some Buddhist monks have even burned themselves to death to make sure they do not slip back into the rebirth cycle. But if a person is not to be reborn, what happens to him? Buddha considered this one of the "questions which tend not to edification." He said:

"I have not elucidated that the saint exists after death; I have not elucidated that the saint does not exist after death; I have not elucidated that the saint both exists and does not exist after death; I have not elucidated that the saint neither exists nor does not exist after death."

In other words, Buddha offered no enlightenment whatsoever as to the future hopes of even a Buddhist "saint," not to mention the hopeless situation of most laymen who must experience innumerable rebirths.

Origin of Buddha's Teachings

Buddha's belief in rebirth and that a person's deeds in one life affect him in his next life came from Hinduism. So did his ideas about meditation and Nirvana.

Where did these Hindu beliefs get their start?

The Encyclopædia Britannica (1952 edition) observes: "The religion [of India] is not based on anything exclusively Indian but on old world-wide beliefs." How did these "old world-wide beliefs" get to India? William H. McNeill explains in *The Rise of the West*:

"The existence of trade relations between Mesopotamia and the Indus Valley from [the third millennium B.C.E.] . . . suggests that the Sumerians may have played a role in the earliest stages of Indus civilization . . . Seaborne contact with Sumer may have provided ready-made models and ideas which the Indus peoples could adapt to the peculiarities of their local cultural tradition."

Interestingly, the Holy Bible pinpoints Babel in Mesopotamia as the center from which civilization spread out after the confusion of man's languages because of disobedience to God in the third millennium B.C.E.—Gen. 11:1-9.

Of course, the teaching of rebirth comes from belief in immortality of the soul. Interestingly the Bible sheds light on the origin of that teaching.

In the Bible the word "soul" refers to all breathing creatures, whether insects, birds, fish, animals or humans. The Bible shows that the soul is the entire creature, every fiber of its being, *not something immaterial and separate from the body*. Therefore, at his creation, the Bible says, "the first man Adam" was *not given* but "*became* a living soul."—1 Cor. 15:45; Gen. 1:20-28; 2:7.

As related in Genesis, the oldest record about the origin of man, God commanded Adam not to eat the fruit of a certain tree. If he did so, God said, Adam would "positively die." (Gen. 2:15-17) Did that mean that the human soul can die? Yes, as the prophet Ezekiel later explained: "The soul that is sinning—it itself will die." (Ezek. 18:4) According to the Bible, nothing

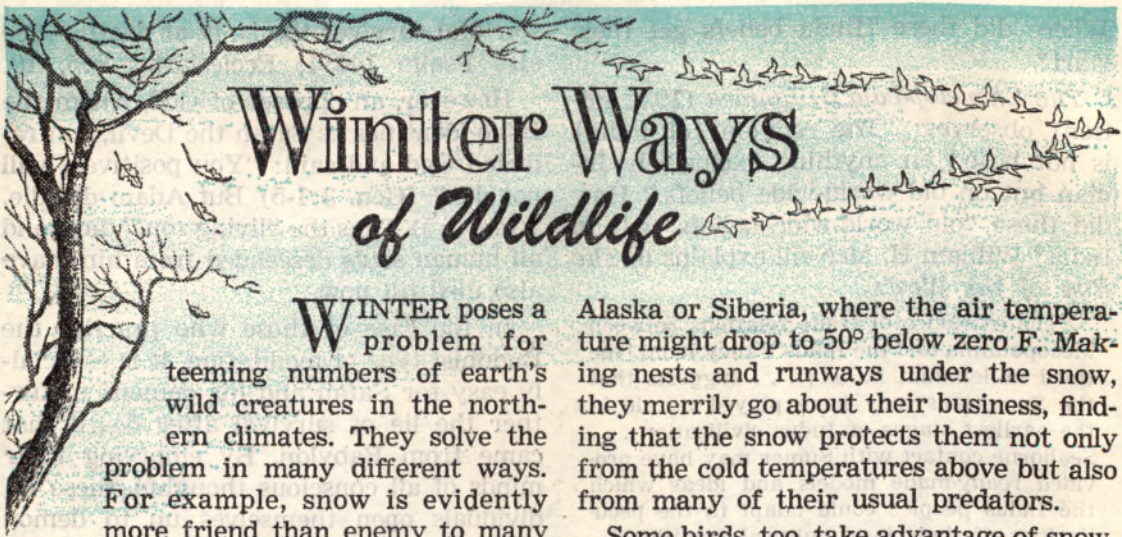
spiritual survives the body at death.—See also Psalm 146:4; Ecclesiastes 9:5, 10.

However, an opposer of God, whom the Bible identifies as Satan the Devil, contradicted God and said: "You positively will not die." (Gen. 3:1-5) But Adam did die. (Gen. 5:5) Thus the "living soul" died, and all human souls descended from him have also died till now.

In the case of those who practice the Buddhist type of meditation, it is especially easy for Satan and his demons to further the lie of survival after death that came from Babylon. By emptying their minds of all conscious thoughts, these individuals open themselves up to demon influence. Thus, at times, such individuals display supernatural mental and physical abilities. But do they really benefit themselves by laying themselves open to demon influence? (Note for yourself the principle stated at Matthew 12:43-45.)

No true enlightenment can come from a system that is built on a lie and that encourages the influence of wicked spirits. The Bible reveals that the true hope for the dead is not transmigration, but resurrection. Jesus Christ promised: "The hour is coming in which all those in the memorial tombs will hear his voice and come out." (John 5:28, 29) Yes, billions of persons will live again as humans, but under righteous conditions, right on this earth. This is no empty promise. Jesus demonstrated its truthfulness by restoring to life at least three persons.—Luke 7:11-17; 8:40-56; John 11:1-40.

The Bible also tells the truth about the origin of the earth and man, how wickedness got its start and how God will put an end to all human oppression in this very generation. Would you not like to become better acquainted with this hope? Jehovah's witnesses will be glad to help you to do so.



Winter Ways of Wildlife

WINTER poses a problem for teeming numbers of earth's wild creatures in the northern climates. They solve the problem in many different ways. For example, snow is evidently more friend than enemy to many of these wild creatures, since it is an excellent insulator. 'Let the snow come' is their tune.

And so when a blizzard bothers the white fox, he just digs deep into a snow-drift. Curled up with his bushy tail covering his nose, the white fox then sleeps out the blizzard. When fierce winds disturb the cottontail rabbit, he may make a cavellike niche in the snow, letting the wind pack the drifting snow around him. The rabbit's own body heat warms up the cavern, and the snow protects him from the wind.

Cozy, snug conditions—these are what a great number of small rodents find under the snow. Winter temperatures at ground surface seldom fall below 20° F. even in

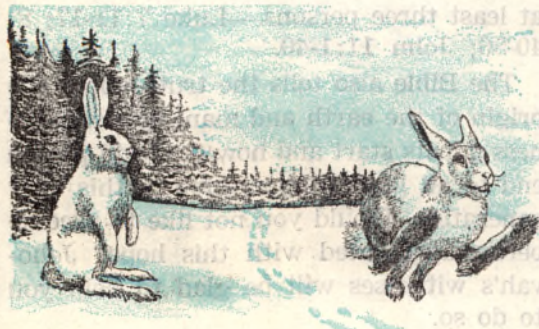
Alaska or Siberia, where the air temperature might drop to 50° below zero F. Making nests and runways under the snow, they merrily go about their business, finding that the snow protects them not only from the cold temperatures above but also from many of their usual predators.

Some birds, too, take advantage of snow. The ptarmigan, an Arctic bird, frequently dives into a snowbank to sleep for the night.

Winter Sleep

To many creatures, the best way to deal with winter is to sleep through it or at least much of it. So when winter comes and humans may busy themselves ice-skating on a pond, they do not see any frogs around. This is because the frogs, like a number of other cold-blooded creatures, have gone to sleep for the winter. The frogs find themselves a nice bed of unfrozen mud at the bottom of their favorite pond. But before they do this, they eat plenty of food, so that once they go to sleep they need not be concerned about meals.

Snakes in northern climates also find themselves a good place to snooze when winter comes. They search out hollow logs or a bed under a stump. A cave or rock den also makes a good sleeping place. Certain caves almost become a hotel for snakes. In the mountains of Pennsylvania, a den was found that housed almost 200 sleeping rattlesnakes and copperheads.



Eating well before winter comes, snakes live off their fat during their winter snooze. As winter goes on, of course, they use up their fat. Thus, in late winter a naturalist once saw timber cutters wake up a big rattlesnake from his sleeping quarters under a large log. During his sleep, the rattler had used up so much of his fat that, as the naturalist said, the snake's skin "hung on him almost as loosely as it appears to hang on the sides of an elephant."

There are also a number of warm-blooded creatures that slumber through the winter. Take, for example, the groundhog by the name of woodchuck. Mr. Woodchuck digs himself a burrow and ensures privacy by sealing off his sleeping chamber with dirt scraped from the far end of the room. Then he rolls up into a ball and sleeps away, sometimes as long as six months! Naturalists have dug up dozing woodchucks and found that these hibernators breathe only about a dozen times an hour. The pulse rate may drop from a normal rate of around eighty or ninety beats per minute to five or less. And the animal's temperature may drop to around 40° F. Once asleep, Mr. Woodchuck is insensible to sound or touch. You could roll him across the floor, for example, without waking him up. No insomnia for woodchucks!

Such deep sleep seems to make hibernators immune to many dangers. For example, a slumbering hedgehog was placed under water more than twenty times without drowning. And scientists put a sleeping marmot in an airtight jar filled with carbon dioxide. Remarkably, they found that this winter sleeper suffered no harm after four hours. So deep is the winter

sleep of such creatures that waking up is a slow process requiring prolonged exposure to heat. Perhaps the all-time high in hibernation was registered by a young female ground squirrel, which slept for thirty-three weeks out of the year!

Only nineteen weeks of activity, and back to sleep again!



Bear Naps

Compared to woodchucks, ground squirrels, snakes, frogs, and so forth, the winter sleep of many bears is only a series of naps. This is because the slumber of bears in the winter may be disturbed, since their body temperature remains high and their breathing stays at a normal rate. Not regarded as true hibernators, bears can be easily aroused from their nap. Some even wake up on their own accord in the winter and prow around for a few hours or days.

Of course, napping bears prefer not to be disturbed by anyone, not even by out-of-season warm spells. Scientists who studied grizzly bears in Yellowstone National Park found that they chose dens where they would not likely be disturbed; some dens were on canyon walls. All the dens were on slopes that faced north, so that brief warm spells would not warm up the den and wake up the occupant. The dens were cozily lined with the fine insulation of pine and fir boughs. But just when did



grizzly bears enter their dens for their winter snooze?

Over a period of years, the scientists discovered that grizzlies did not enter their prepared dens for slumber until the onset of a blizzard, one that would quickly cover their tracks as they entered their dens. In a few hours, drifting, blowing snow covered their footprints, and now who would know that a dozing bruin was in bed?

Traveling South

Just as some humans head for southern climates with the approach of winter, so do many creatures of the wild, especially the birds. In fact, about two thirds of all species of birds in the northern United States and Canada (about twelve to fifteen billion birds) fly southward, to southern states and Mexico or to Central and South America, for the winter. Of course, for birds the trip southward is not just to get away from the cold; they need to travel to a warmer climate to make a decent living. During the summer up north they live on seeds, berries and insects. But in the winter not only are such tasty tidbits in short supply, but there is also a shortage of daylight hours in which to search for any available food.

The trip south, for many birds, is a long one. For instance, with winter's approach, white storks from Europe travel as far as South Africa. And, oddly enough, young storks that have never yet been away from home travel first, without an older bird to show them the way. The yearly round trip of Mr. and Mrs. White Stork and family may cover some 14,000 miles! Truly as the Holy Bible says about the stork's God-given instinct: "The stork in the sky knows the time to migrate." (Jer. 8:7, *The New English Bible*) The wonderful winter ways of wildlife are indeed a credit to the Creator of all these creatures.

Consider this fact too: Many of the southward-bound feathered voyagers fly virtually entirely over water, making long trips nonstop. A Pacific subspecies of the golden plover lives in the Alaska tundra during the summer. In the fall this bird travels 3,000 miles over the Pacific Ocean to Hawaii! As if Hawaii is not enough of a trip, this bird will continue south for another 2,500 miles to the Marquesas. Not infrequently it will fly 500 miles more to the small South Pacific islands of the Tuamotu Archipelago.

Other Ways to Deal with Winter

Heading south, if you can do it, may be the ideal way to beat the cold, but for creatures that cannot fly, it is mostly out of the question. So a common way of coping with winter problems is to store up food supplies. The red squirrel enjoys mushroom meals and so stores up quantities of these during the summer. First, though, he dries the mushrooms by laying them out on the topmost tree branches. Then he stores them in a dry place, ready for winter use.

Putting on special winter coats is a common way many creatures survive the cold. They grow heavy coats specially equipped with a layer of fine, soft hair next to the skin.

Long before man started to manufacture coats with airy padding, the deer was taking advantage of dead-air space—heat traveling very slowly through still air. So with the approach of autumn, the deer sheds its cool summer coat and grows its winter coat, each hair of which is hollow. Covered with this air-insulated coat, the deer needs nothing more, even on the worst days, than finding protection in the deep woods among the pine and spruce. But whereas a deer might get stalled in deep snow, the snowshoe rabbit cares not how deep the drifts get. Why is this? Well,

with the approach of winter, new white fur grows abundantly on the rabbit's feet. By the time snow is on the ground, the rabbit's feet have been transformed into broad, soft light pads to carry him over the deepest drifts without sinking.

Right now in the northern hemisphere countless kinds of animals are coping with winter's cold and winds. They may be asleep in a den or beneath the snow or bounding about the countryside. Amazing indeed are the winter ways of wildlife!

Are You A GOOD TEACHER?

"MOMMY, show me how! I want to do it!" cries a little five-year-old. What is she asking of her mother? Be my teacher.

No matter what your situation in life, you are often required to be a teacher. Every time you give directions from a road map, show a new employee how to operate a machine, explain to a child how to tie his shoes—you teach.

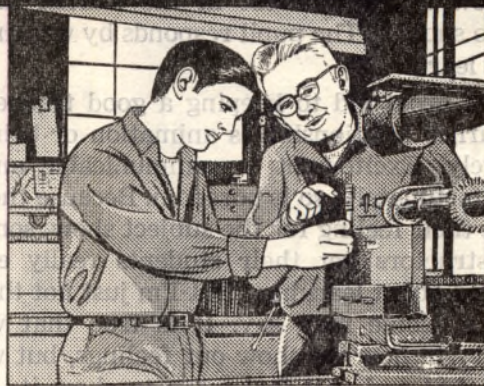
Yes, everyone is a teacher, and we should be interested in improving our ability as teachers.

Obviously there are many different kinds and levels of teaching. But why do we enjoy having some people explain things more than we enjoy others? What makes some people *good* teachers?

When asked these questions, a Danish pupil replied: "A good teacher really knows the subject or skill. He is also practical in his approach, telling me why it is important to learn a certain thing. As a result I see where I can use the information or skill in my life." A Canadian student brought up another aspect: "A good teacher takes a personal interest in you. You are not just a number to him."

The Teacher-Learner Relationship

Students are people; they need to feel that a personal interest is being shown in them. As H. C. Rose in *The Instructor and*



His Job states: "Students respond very quickly to genuine interest."

Yes, good teaching starts with our general attitude toward people. Do we really care enough for others to explain matters to them patiently? If so, we will be willing to take time, not only with the person, but also beforehand to organize our thinking to be of the most assistance and guidance. We will be friendly and make the learner know that we welcome his questions and comments.

As a practical example, suppose we are asked to instruct a new employee in the operation of a machine. What can we do to create a good relationship? If we give him a scowl for interrupting our work and immediately barrage him with words, how will there be an atmosphere conducive to learning? How much better to show a personal interest and assure him that

we will be happy to explain the operation to him.

Parents, especially, must remember that a child desperately wants to please, to feel successful and appreciated. If he is made to feel stupid, or rejected, because he does not learn something as quickly as the parent feels he should, his desire to learn may be impaired for the future.

Can we not see why some who may not have as much technical skill in teaching as others do are still better teachers? They show a real interest in the learner and the subject. The pupil responds by wanting to learn.

A great aid to keeping a good teacher-learner relationship is animation or being lively. Excitement is communicable and, unfortunately, so is boredom. Because they let their feeling for the subject show, some instructors get their students really excited about learning. 'But I'm just not that way,' some may say. It is true that we vary in how we show our feelings, but we all feel and can find ways to show it.

Often some fresh research on the subject will rekindle our excitement and then, in turn, we can excite our learner. Personally reviewing why our enthusiasm is important for the learner will help. Also, we need to get our mind off ourselves and immerse ourselves in our subject in order to achieve the desired relationship with those whom we are trying to help.

But there are times when this relationship exists, the student wants to learn, and yet both may be disappointed with the results. What is missing? Perhaps certain teaching skills. Consider a few of the more valuable ones.

Simplicity—the Key

An experienced teacher said: "The teacher must not only know the material he wants to teach, but also know it in its *most simple and yet accurate form*. If it

is complicated to the teacher, he cannot teach." What is needed is simplicity.

Sometimes the teacher knows his subject so well that he forgets how complicated it can seem to someone who does not. If that is true in your case, what can you do to simplify your explanation? First, *watch your vocabulary*. It is easy to forget that terms, especially technical terms that may be familiar to you, can be confusing to others. Even when you are not discussing something technical, care is needed. Suppose you are teaching your young daughter to bake a cake. You need to make sure that your little one knows the difference between such words as "beat," "stir" and "fold." So, in addition to favoring short words and short sentences, be sure to explain any word that may represent the unknown to your pupil.

Secondly, *avoid verbiage*. Do not flood the learner with words. Talking is not the same as teaching. Simplicity often requires that you slow down and select your words carefully.

Thirdly, approach the subject *logically* or in a *step-by-step* fashion. Build on what your student already knows. It is often helpful to make a list of what you want to teach. Break it down, noting what each operation or point will involve, and then figure out which one the learner must know first. Now, what can you successfully teach next, and so on? Remember that only a few steps can usually be absorbed at any one time.

Another factor that makes for simplicity is *repetition*. If you select a few main points and employ repetition, the results are often heartwarming.

What do we mean by repetition? Is it having a certain phrase that we say again and again? That method might cause the learner to memorize the phrase as a slogan, but not learn the idea behind it. Far better that we choose different words—

then the ideas stick. A teacher of long experience encourages: "Learn to say the same thing two or three different ways. This tends to stop the student from memorizing words only, but gets the main point across."

You can improve at simplifying by analyzing your approach. Constantly ask yourself: 'Was there a better way to explain that? How could it have been made more clear, more simple?'

Two other areas to scrutinize are the use of illustrations and the use of questions.

Use of Illustrations

An illustration is a story with a point to it, or it might be a demonstration, step by step, of how to do something. Visual aids, such as a blackboard, can be very useful. 'Word pictures' can also be used.

But some may say, 'I'm just not a storyteller and never will be.' Actually, we all use illustrations frequently. When we say "slow as a turtle" or "free as a bird," we are explaining by example—illustrating.

One may feel inadequate in using longer illustrations, but often shorter ones can be used with great effect. The greatest teacher who ever lived on earth, Jesus Christ, did that. When speaking about judging others he said: "Why look at the speck in your brother's eye when you miss the plank in your own?" (Matt. 7:3-5, *New American Bible*) What a powerful illustration! Yet it was short.

There are many benefits to the short illustration. It is simple and so usually is more understandable. The lengthy illustration, unless extremely well done, tends to get complicated. The learner may get so involved in figuring out the illustration that he forgets the lesson.

On the other hand, a simple illustration can really aid teaching. Educator N. L. Bossing explains why: "The ability to

think abstractly [thinking not supported by examples] is one of the most difficult of human accomplishments." The learner needs examples to grasp your point fully.

Illustrations also help to bring the teaching into the realm of real life. After teaching your son certain principles about driving a car, give him an example of the kind of problem that can come up in traffic. This will impress upon him that the principles just taught are important in real-life situations. An appropriate illustration does not take you away from your subject. It makes it more important, more real. That is good teaching!

How does a person think of good illustrations? You do not need to think up "stories"; simply think of "examples" of your point. Do not be afraid of using imagination. For example, suppose you are trying to teach your children how the planets move in relation to one another. What can be done to make it "real"? Why, the sugar bowl can become the sun; a cup, the earth, and the saltshaker, the moon! Move them around one another, and the words you have used will take on meaning to your child.

If you make it a habit to look for examples, you will soon find that what you say often makes a lasting impression.

Use of Questions

When properly used, the question is an outstanding tool. Basically, questions ask for facts (Who? What? When? Where?) or they ask for conclusions or opinions (How? and, Why?).

Short, concise questions are the best. They usually involve one main idea.

If you really want to know what your student is thinking, you may need to watch the tone of your voice. For example, a parent might ask his teen-age son how he views the smoking of marijuana.

By the way the father says the word "marijuana" the son could learn that his father does not approve of it. What then? He might give his father the expected answer. But if the question is asked without emotion, the boy is more likely to reply as to how he really feels about it. Questions seldom result in good teaching if they are put in a harsh or demanding manner. Do not forget the teacher-learner relationship.

It is also good to remember that if you are asking someone to think, it is important to be patient. If you ask a question, but then quickly give the answer yourself, you will never really know whether the other person could have answered. Pause after the question; watch the expression on his face, and then if you see that he does not comprehend, rephrase the question.

Questions can be used to stimulate interest, test understanding, or both. Often questions that stimulate interest are rhetorical, that is, the answer is obvious or no verbal answer is required—such as, "We all want to be happy, don't we?"

Questions to test understanding are the most difficult. They are frequently used

in reviewing main points or checking student comprehension. Such questions must be worded carefully to avoid discouraging your student. If you ask him to reason on something and he comes to the wrong conclusion, he may feel slow, embarrassed or disappointed in himself. If you can tell from his facial expression that he is not following you, it might be better to re-explain without questioning or tactfully inquire if he would like more explanation. Your pupil will be grateful.

Really, showing consideration, interest and patience in our everyday life has a good effect upon us, not only when teaching, but all the time. We become persons who can communicate more effectively with others. We are more easily understood because we are more understandable.

The question is not really, Should you think about becoming a teacher? You are one. The question is, Will you make the effort to be a *good* one?

The rewards of being a good teacher are great. For when we teach we share with another person. We give part of ourselves to help someone else. It is an enriching experience that can make life more interesting and more worth while.

A GOOD IMPRESSION

PARENTS know how "impressionable" young children are. Some of the experiences they have may seem quite minor to adults. Yet from these experiences in childhood young people can learn lessons that will last throughout their life.

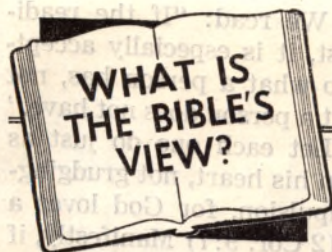
Some Christian at a district assembly of Jehovah's witnesses in San Antonio, Texas, helped to provide just such a lesson—in honesty—for a ten-year-old lad. This young boy was attending the assembly with his parents and, after the end of the day's sessions, walked with them through an amusement park section of the "Hemisphere" on their way to their motel. Not long thereafter, the Watch Tower Society received the following letter from this youngster:

"I appreciated the 'Divine Name' District Assembly. The departments were run very well. Something strange happened while I was going to the motel. My new wallet fell out of my pocket. I was very upset. My wallet contained 3 dollars and my library card. We went to San Antonio and walked the whole hemisphere grounds. The next day I checked at the Lost and Found Department at the assembly. It wasn't there. I checked about 30 minutes later. I checked again. There it was. . . .

"May Jehovah Be With You.

[Signed]"

How fine it is when an individual by manifesting Christianity can provide such a lesson in honesty for a youngster!



DOES GOD REQUIRE A TITHE?

THE ancient practice of tithing or giving a tenth for religious purposes has continued to the present day. Parishes of the Church of England are maintained by a "tithe rent charge." Tithes support the Roman Catholic Church in Quebec, Canada. The members of various other denominations believe that they are Scripturally obligated to contribute a tenth of their income to their church. Does God really require this? What does the Bible say?

The first recorded instances of tithing in the Holy Scriptures were voluntary, unsolicited acts. Abraham, the forefather of the Israelites, gave King-Priest Melchizedek one tenth of the spoils of his victory over Chedorlaomer and his allies. (Gen. 14:18-20) Later, Abraham's grandson Jacob made a vow to God, saying: "If God will continue with me and will certainly keep me on this way on which I am going and will certainly give me bread to eat and garments to wear and I shall certain-

ly return in peace to the house of my father, then Jehovah will have proved to be my God. And this stone that I have set up as a pillar will become a house of God, and as for everything that you will give me I shall without fail give the tenth of it to you."—Gen. 28:20-22.

Clearly, Abraham had not imposed the payment of tenths on his family as a regular duty. It would have been superfluous for Jacob to vow to pay a tenth had he already been under obligation to do so. Moreover, Jacob's vow about giving a tenth of everything in no way implied that his descendants would have to do the same. That vow was a solemn promise by which Jacob alone bound himself.

Jacob's descendants, the Israelites, however, did eventually receive a law from God requiring the payment of tithes. What was the purpose of this law? Is it binding on Christians today?

The prime reason for tithes in Israel was to support the priesthood and the services at the sanctuary, because neither the priests nor other members of the tribe of Levi were given a land inheritance of their own. Their main work was to look after the spiritual interests of fellow Israelites. The tithes, therefore, served as a divinely arranged means of support, a payment for services rendered in behalf of the nation. God's law stated: "The Levites themselves must carry on the service of the tent of meeting, and they are the ones who should answer for their error. It is a statute to time indefinite during your generations that in the midst of the sons of Israel they should not get possession of an inheritance. For the tenth part of the sons of Israel, which they will contribute to Jehovah as a contribution, I have given to the Levites as an inheritance." (Num. 18:23, 24) The non-priestly Levites, in turn, gave a tenth of what they had received to the Aaronic priesthood for its support. —Num. 18:25-29.

The Christian congregation forming the "Israel of God," or a nation of spiritual Israelites, differs from natural Israel. (Gal. 6:16) It has no special priestly class nor a body of sanctuary workers who cannot own land or are otherwise prevented from using their hands to

the full in caring for their material needs. All the members of spiritual Israel are a "holy priesthood." (1 Pet. 2:5) Thus there is no need for the kind of material support Jehovah God outlined for natural Israel.

Furthermore, the activities carried on at the sanctuary by Israel's priests and the Levites pointed to realities fulfilled in Jesus Christ. Respecting the provisions of God's law to Israel, the Bible tells us: "Those things are a shadow of the things to come, but the reality belongs to the Christ." (Col. 2:17) "Since the Law has a shadow of the good things to come, but not the very substance of the things, men can never with the same sacrifices from year to year which they offer continually make those who approach perfect." (Heb. 10:1) When the reality came into being, the functions pointing to it ceased to have any value. And tithes for supporting these functions were no longer required.

The Law covenant, with its commands about tithing, was abolished on the basis of Jesus' death on the torture stake. Of this, the inspired apostle Paul wrote: "[God] blotted out the handwritten document . . . and He has taken it out of the way by nailing it to the torture stake." (Col. 2:14) Hence, the command on tithing given to the Israelites cannot be used to prove that God requires this of Christians.

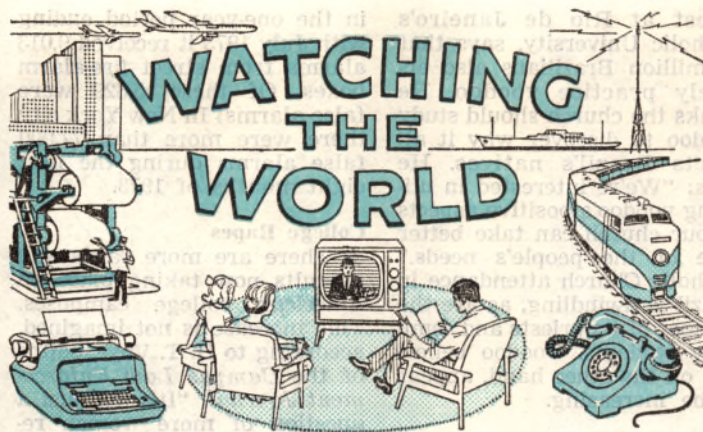
An examination of the Christian Greek Scriptures gives no indication that members of the first-century church had to pay tithes. True, they made contributions for relief measures in behalf of needy fellow believers. They also gave assistance to elders who worked hard in speaking and teaching. At no time, though, do we read of a specific amount of income being set aside for such contributions.—Acts 11:29; Rom. 15:26; 1 Cor. 16:1-3; Phil. 4:15, 16.

In the Christian Greek Scriptures the emphasis is on voluntary giving that stems

from the heart. We read: "If the readiness is there first, it is especially acceptable according to what a person has, not according to what a person does not have." (2 Cor. 8:12) "Let each one do just as he has resolved in his heart, not grudgingly or under compulsion, for God loves a cheerful giver." (2 Cor. 9:7) Manifestly, if tithing had been enjoined upon Christians, the amount would already have been determined for them by a specific command.

Regarding material assistance to elders, Christians were instructed: "Let the older men who preside in a fine way be reckoned worthy of double honor, especially those who work hard in speaking and teaching. For the Scripture says: 'You must not muzzle a bull when it threshes out the grain'; also: 'The workman is worthy of his wages.'" (1 Tim. 5:17, 18) Again there is no mention of any tithe to be used in assisting elders materially. Then, too, we should not conclude from this text that any of the elders received a fixed salary. What they received were voluntary gifts from those who appreciated that the time these elders spent in behalf of the congregation could have been used by them in working for money. The apostle Paul and other faithful elders, however, did not seek after such material assistance. They worked with their hands to care for their physical needs.—1 Thess. 2:9.

Thus there is no Biblical proof that early Christians considered tithing to be a divine requirement. It was such only during the time the Law covenant was in force. With the abolition of the Law, the command about tithing was also canceled. And no command to tithe was given to the Christian congregation. Contributions for furthering the interests of true worship were strictly voluntary. Jehovah's Christian witnesses today follow the example of the first-century congregation in this regard.



what the energy crisis . . . will do to economic conditions in the United States and abroad."

... On Farming

◆ Modern farming methods require huge amounts of oil. In fact, *Science* magazine says, farming, as an industry, is the largest user of petroleum in the U.S. The shortages affect machinery, such as tractors and trucks, and petroleum-based fertilizers. It was recently estimated that the equivalent of 80 gallons of gasoline is required to produce just one acre of corn. The so-called green revolution, being pressed in many parts of the "less developed" world, uses similar high-energy crop-production techniques. Understandably, the magazine adds: "Problems have already occurred with green revolution crops, particularly problems related to pests. More critical problems are expected when there is a world energy crisis."

... On Honesty

◆ "Black market" fuel, already a problem in the U.S., is expected to cost the government even more money in lost taxes during the oil shortage. How? Consider one way: Diesel fuel and number 2 home heating fuel are almost the same, chemically speaking. But, primarily because of taxes, heating fuel may sell for 26 cents per gallon; diesel fuel, for 43 cents. Truckers sometimes evade taxes by using home heating oil in their tanks. *Fleet Owner*, a trucking magazine, says that that trick alone costs the government one billion dollars a year in unpaid taxes.

"Churches Are in Trouble"

◆ A special study of fourteen Boston area churches—Catholic, Episcopalian, Unitarian, Baptist and others—says they are suffering from declining attendance and mounting costs. It notes: "The institutional church, regardless of denomi-

Effects of the Energy Crisis . . .

◆ Nearly every country has been strained in one way or another by recent Arab cutbacks in oil. Even in India retail gasoline costs increased by almost 50 percent, to \$1.49 per gallon. There is also a shortage in natural gas. Particularly the industrialized nations of the U.S., western Europe and Japan are feeling the energy squeeze. Consider a few of the effects.

... On Automobiles

◆ Sunday driving is now banned in certain European countries to conserve fuel. Gasoline restrictions have also appeared in the U.S. and most speed limits there are now 55 miles per hour. The scarcity of petroleum and its rising price have increased small-car sales in recent months. Smaller cars go farther on each gallon of gas than do larger ones. Many persons are trading in big cars at an economic loss to buy smaller ones. Meanwhile, new big-car sales are slumping. In one thirty-day period ending in November their sales were 27 percent below the same period in 1972. Says a major auto sales analyst: "No one ever thought things would fall so far so fast."

... On Other Industry

◆ U.S. industry's unemployment rolls are longer due to

layoffs because of the petroleum shortage. Fewer airline flights, for instance, mean that fewer pilots and ground crewmen are needed. Fewer skilled workers are needed to build airplanes. Also, such products as synthetic fibers (used in clothing) as well as plastics are in limited supply due to the shortage of natural gas, which is essential in their manufacture. In the brick industry, fuel normally accounts for 10 percent of production costs; now, due to the increase in the cost of fuel, it is responsible for 50 percent of the costs. And, says *Business Week*, "as the oil and gas shortage bites deeper, a host of products will disappear from the market, many of them cheap, low-profit items."

... On the Stock Market

◆ During the first six weeks after the early October outbreak of war in the Middle East the Dow-Jones industrial stock averages fell by over 125 points. On one day, Monday, November 19, the drop of 28.67 points was the sharpest in eleven years and the fifth-largest day's drop in history. Stock averages in Europe declined as much as 20 percent during October and November. The cause? A *New York Times* editorial reflects the view of many: "The sell-off on Wall Street clearly reflects fears of

nation, faces a situation in the urban community that can be described only as disastrous." At least two of the churches are now said to be considering the removal of their structures for housing and an office building. A follow-up report in the *Boston Globe* says that many local "clergymen agree with the premise of the study that inner-city churches are in trouble."

A Baptist and the Bible

◆ Roy Essex is Baptist chaplain at the University of Toronto as well as chaplain and consultant with other organizations in that area. What does he think about the Bible? The *Toronto Star* reports: "I don't go along with the Adam and Eve stuff. I find difficulty with Daniel and the lions' den and other Old Testament stories." He adds: "There is a lot of superstition still mixed up in what passes for religion. We need to separate the two." His views are just the opposite of those of Jesus Christ and his apostles, who testified that they believed these accounts.—Matt. 19:4-6; 1 Cor. 15:45; Heb. 11:32, 33.

Fewer at Mass

◆ A survey published in *The National Catholic Reporter* shows that U.S. Catholic Church attendance suffered a "catastrophic" drop between July 1972 and July 1973. The number of Catholics attending church "weekly or almost weekly" dropped from 61 percent to 48 percent during that year. Among those over 50 years of age, the decline was from 76 percent to 55 percent; this latter tendency the surveyors called a 'dramatic phenomenon.' Writer William Reel says that this problem "threatens to bring down the whole institution."

Catholics and Voodoo

◆ Over 90 percent of Brazil's 100 million people are Catholics. But Raimundo Cintra, a

priest at Rio de Janeiro's Catholic University, says that 60 million Brazilians also actively practice voodoo. He thinks the church should study voodoo to discover why it attracts Brazil's natives. He says: "We're interested in utilizing voodoo's positive aspects so our church can take better care of the people's needs." Catholic Church attendance in Brazil is dwindling, as are the number of its priests and seminary students. Voodoo believers, on the other hand, appear to be increasing.

Pollution Lingers

◆ Ever more pollution is being poured into the oceans. But now the lingering effects of such pollutants are better understood. Some time back a small oil spill took place in Buzzards Bay, Massachusetts. About 95 percent of the fish, crabs, lobsters and clams were dead within hours. Months later, small marine organisms still suffered toxic effects. Within eight months the area contaminated had grown to ten times the size of the original spill. Poisonous compounds were still present in sediments a year later. Reports a current *Saturday Review/World*: "In all, the evidence added up to a far more incriminating picture of the problems of oil than had been envisaged."

More Cancer

◆ The number of deaths in the U.S. from cancer is increasing. In 1971 there were 161.4 deaths due to cancer out of every 100,000 deaths in the country. In 1972 the figure had risen to 166.8 deaths. This increase is about three times the annual average since 1950. Cancer authorities claim that 1.3 million Americans may be found to have cancer for the first time in 1974.

False Alarms

◆ The Baltimore, Maryland, Fire Department reports that

in the one-year period ending with July 1973 it received 9,013 alarms from street fire-alarm boxes. Of these, 5,329 were false alarms! In New York city there were more than 77,000 false alarms during the first eight months of 1973.

College Rapes

◆ There are more rapes and assaults now taking place on American college campuses. This increase is not imagined, according to H. T. Voyer, editor of the *Campus Law Enforcement Journal*: "It's not just a question of more women reporting it. It has happened." What is behind the rape increase? Coed dormitories, for one thing, which allow almost anyone free access to virtually any part of a college campus. Hitchhiking girls are also vulnerable to attack. Authorities also connect the increase with a general rise in campus crime, ranging from stealing bicycles to muggings.

Work and Live

◆ A new report by the U.S. Veterans Administration indicates that a person is likely to live longer if he continues to work. Work, it is reasoned, makes people feel needed.

Gonorrhea Epidemic Continues

◆ World wide, gonorrhea is now said to be "almost out of control." A recent medical symposium was told that there may have been up to two and a half million cases of the disease in the U.S. in 1972. A spokesman for the Center for Disease Control observes: "No significant infectious disease is more common than gonorrhea in the United States right now." There, and elsewhere, "extra-genital gonorrheal infections" are occurring more frequently. This is gonorrhea in the throat or rectum, a result of homosexual or other perverted practices. Can the disease be stopped? According to the *Montreal Star*, experts at an international symposium held there

"saw little hope of solving the problem short of a return to traditional sexual morality."

1973 Tornadoes

◆ By late November the U.S. had already been struck by a record 990 tornadoes. They are reported to have killed seventy-five persons. Fierce tornadic winds, believed to reach a speed of 600 miles per hour in their vortex, have been known to drive wooden splinters through steel, lift railway cars into the air and level masonry buildings.

Alcoholic Mothers

◆ Chronically alcoholic women who are pregnant may bear children with serious birth defects, according to a study published in the medical journal *The Lancet*. It reports the cases of eight deformed children born to such women. All the children had what was consid-

ered below-normal intelligence and weight and were 20-percent shorter than average infants. Afflicted with a variety of physical defects, all are thought to be permanently retarded in their growth. Dr. David W. Smith of the University of Washington estimates that up to 20 percent of all alcoholic mothers may bear similar children.

Autos and Infant Safety

◆ In 1972 there were 370 infants less than one year of age who were killed in auto accidents. Pediatricians recommend that a small child be strapped into a special heavy plastic carrier attached to the front seat of the car. The child faces the rear. A raised back on the carrier keeps the child from being thrown against the windshield in case of an accident or sudden stop.

Sudden Death

◆ According to doctors at Stanford University, there is now an "epidemic" of sudden-death heart attacks in the United States. It currently claims 150,000 American lives every year. Doctors have identified certain 'risk factors'—obesity, smoking, hypertension, elevated blood cholesterol and a family history of heart trouble.

Seafood Hepatitis

◆ Over two hundred cases of infectious hepatitis were reported from Houston, Texas, in late September. About the same time 14 persons in northwest Georgia contracted the disease. Both groups of people had eaten tainted oysters from Louisiana. Raw seafood from polluted waters, a common source of infectious hepatitis, can be safely consumed according to some—but only if it is *thoroughly* cooked.

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