

Awake!

A MIXED-UP WORLD **-Can You Change It?**

Also In This Issue:

World Council Of Churches
-A House Divided

JUNE 22, 1976

Awake!

Reg. U.S. Pat. Off.

June 22, 1976
Vol. 57, Num. 12

Average Printing Each Issue:
9,975,000

WHY THIS MAGAZINE IS PUBLISHED

Today as never before, what goes on in the rest of the world affects each one of us. "Awake!" reports on the world scene. But it does more for you personally.

It probes beneath the surface and points to the real meaning behind current events. And it gives practical suggestions to help you to cope effectively with the mounting problems of our time.

The scope of subjects covered by "Awake!" makes it a magazine for the entire family. Customs and people in many lands, the marvels of creation, religion, practical sciences and points of human interest all are included in its pages.

In keeping its freedom to bring you the truth, this magazine has no commercial advertisers to please. Also, it stays politically neutral and it does not exalt one race above another.

Most importantly, "Awake!" provides hope, giving you a basis for confidence in the Creator's promise of a new order of lasting peace and true security within our generation.

Now Published in 32 Languages

Semimonthly Editions:

Afrikaans	Finnish	Italian	Spanish
Cebuano	French	Japanese	Swedish
Danish	German	Korean	Tagalog
Dutch	Greek	Norwegian	Zulu
English	Iloko	Portuguese	

Monthly Editions:

Chinese	Malayalam	Sesotho	Ukrainian
Cinyanya	Melanesian-Pidgin	Tamil	Xhosa
Hiligaynon	Polish	Twi	Yoruba

Five cents a copy

Watch Tower Society offices	Yearly subscription rates for semi-monthly editions in local currency
America, U.S., 117 Adams St., Brooklyn, N.Y. 11201	\$1.50
Australia, 11 Beresford Rd., Strathfield, N.S.W. 2135	\$2.50
Canada, 150 Bridgewater Ave., Toronto, Ontario M6A 1Z5	\$1.50
England, Watch Tower House, The Ridgeway, London NW7 1RN	£1.50
Hawaii, 1228 Pensacola St., Honolulu 96814	\$1.50
New Zealand, 6-A Western Springs Rd., Auckland 3	\$1.50
Nigeria, West Africa, P.O. Box 194, Yaba, Lagos State	₦1.10
Philippines, P.O. Box 2044, Manila 2800	₱8
South Africa, Private Bag 2, P.O. Elandsfontein, 1406	R1.30

(Monthly editions cost half the above rates.)

Remittances for subscriptions should be sent to the office in your country. Otherwise send your remittance to 117 Adams Street, Brooklyn, N.Y. 11201. Notice of expiration is sent at least two issues before subscription expires. Second-class postage paid at Brooklyn, N.Y. and at additional mailing offices. CHANGES OF ADDRESS should reach us thirty days before your moving date. Give us your old and new address (if possible, your old address label). Write Watchtower, R.D. 1, Box 300, Waikiki, New York 12589, U.S.A. POSTMASTER: Send Form 3579 to same address. The Bible translation used in "Awake!" is the modern-language "New World Translation of the Holy Scriptures," unless otherwise indicated. Printed in U.S.A.

IN THIS ISSUE

A Mixed-up World—Can You Change It?	3
Can the World Be Changed?	5
Why We Can Be Confident a Better World Is at Hand	8
Men of Medicine Learn from Creation	13
Poison Oak and Ivy	
—Very Touchy Subjects	15
World Council of Churches	
—A House Divided	16
"As a Thorny Weed"	19
The Mosquito—Insect Menace of the Night?	20
Why a Dove?	23
Spotting the Furious Typhoon	24
What Is the Bible's View?	
What Does It Mean to Be "Born Again"?	27
Watching the World	29

PUBLISHED BY
WATCHTOWER BIBLE AND TRACT SOCIETY
OF NEW YORK, INC.
117 Adams Street, Brooklyn, N.Y. 11201, U.S.A.
N. H. KNORR, President GRANT SUITER, Secretary

A MIXED-UP WORLD

-Can You Change It?

Millions believe the world situation to be extremely critical. Who can bring about change for the better? Can young people do it?

THERE is a lot wrong with the world. No one will argue about that. Many young people believe the situation is so critical that changes are necessary if the human family is to survive. In fact, some of them believe that it is already too late to avoid world disaster. They would compare the course the world is taking to that of a runaway train that is speeding downhill toward a yawning canyon the bridge over which has been washed out.

Most older persons, however, will probably not agree. They are inclined to feel that this mixed-up world will somehow recover and that everything will work out all right. "Look at the dark days of the Great Depression, or to those of the World War II period," they may say. "Conditions often appeared hopeless, but they improved. The world survived, and it will again."

"But the situation is *not* the same," many youths will quickly reply. "It is altogether different now." And, frankly, they have a point.

A very different society has been created. In his book *Future Shock* Alvin Toffler writes: "We are simultaneously experiencing a youth revolution, a sexual revolution, a racial revolution, a colonial revolution, an economic revolution, and the

most rapid and deep-going technological revolution in history."

If we face up to the present troubled world in which we live, we have to acknowledge that what happened to previous generations may not be applicable to present-day situations. We must try to grasp the effect that the shocking revolution in society has had upon youth.

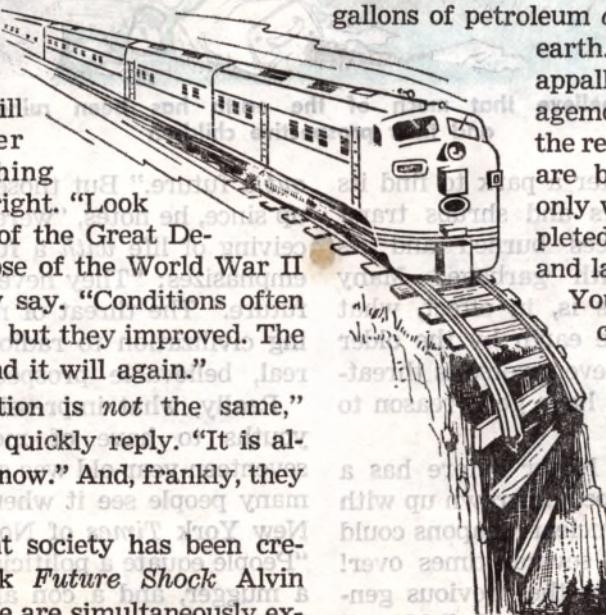
Consider, for example, the effect of the technological revolution, which is fueled primarily by the hundreds of millions of gallons of petroleum *daily* taken from the

earth. Youths often are appalled by the mismanagement of resources. At the reckless rate that these are being consumed, not only will they soon be depleted, but the air, water and land will be poisoned!

Young people are inclined to exclaim: "How dare our parents' generation exhaust earth's resources and pollute the environment, ruining it for us and our prospective children!"

Many young people believe the world to be on a fatal course

Can't we sympathize with such a view? For how





Many youths believe that much of the earth has been ruined for them and their prospective children

would you feel to enter a park to find its once-beautiful flowers and shrubs trampled, its stately trees burned and its grounds littered with garbage? Many youths feel that this is, in effect, what has been done to the earth by the older generation, and that even worse is threatened. And don't they have good reason to worry?

Think about this. Never before has a generation of young people grown up with the knowledge that nuclear weapons could wipe out civilization several times over! Drawing a contrast to the previous generation, British commentator Jeff Nuttall points out that youngsters who reached puberty before the dawn of the atomic era "were incapable of conceiving of life with-

*out a future." But those who have grown up since, he notes, "were incapable of conceiving of life *with* a future."*" As Nuttall emphasizes: "They never knew a sense of future." The threat of man himself blowing civilization to radioactive pieces is a real, believable prospect to them.

Really, what impression can we expect youths to have of men in power? A seventeen-year-old was simply telling it as many people see it when he wrote in the New York Times of November 22, 1975: "People equate a politician with a burglar, a mugger, and a con artist; many think that our leaders are constantly looking out for no one except themselves."

When children enter their teens, they come to realize that it is business persons

out for financial gain that have been responsible for exposing them to a poisonous mental diet of crime and violence. A leading United States magazine, in its September 1975 issue, reported: "Your child, if he's typical, will watch 13,000 people die on television before he is 15 years old. If he were to see every show on network prime time this year, he would witness murders, beatings, rapes, muggings, and robberies at the rate of eight an hour, with three out of four programs featuring violence."

Also, as youngsters grow older they begin to discern that it is greedy commercialists who endanger life on earth with pollutants, and it is power-hungry leaders who imperil civilization by building nuclear arsenals. Can we blame youths for growing to hate the system that has done so much to ruin their prospects for a happy, secure future? Nobel Prize-winning scientist Szent-Györgyi understood how youths feel, explaining:

MANY persons have thought that a better world could be created. And in the past, youths have been eager to try to do it. During the 1960's, for example, young people commonly made headline news with their efforts to reform the system. Thousands of them *en masse* protested against what they considered to be a racist, lawless, cruel society. But, more recently, practically all such efforts to change the system ceased.

A couple of years ago, when the corrupt practices of some of the most powerful

"They find everything a lie. The great political parties are out for profit and power, the military for domination, fattening itself with their young bodies. . . . They see that religions are always on the side of power. And they see that while half of the children of the world go to sleep hungry, without the food they need to build sound minds and bodies, we spend hundreds of billions to raise our stock of nuclear bombs and missiles higher and higher. They see that most of their political leaders are really mindful only of their re-election, of keeping their power, feeding the people with arguments which should be rejected by the simplest logic."

Yes, many youths see this as a corrupt, cruel world! And don't we have to agree? But, some will tell you: 'You can build a better world. You must clean out of your governments the corrupt, immoral elements. You can do it.' But can youth change this mixed-up world, and create a new and better one? Is it a waste of time to try?



men in the world were spotlighted, youths hardly raised a sound of indignation. This was a startling silence in view of youths' efforts at reform just a few years before! Why?

In their book *The Conspiracy of the*

FEAR FOR THE FUTURE

Fearing an impending collapse, many persons are taking measures to preserve themselves. "Time" magazine of August 4, 1975, reported on one such plan: "Waiting for Armageddon is, in a curious way, one of the morbidly titillating preoccupations of our time. . . . A group of California land developers has founded something called the Scott Meadows Club—712 acres of fertile Sierra wilderness in Northern California's Siskiyou County, all set aside as a secret retreat, once civilization as we know it has disintegrated."

Young, teachers Paul Lauter and Florence Howe comment on what brought about the changed attitude of youths in recent times: "There was a fundamental belief [years ago], call it middle-class optimism perhaps, that institutions could be reconstructed. . . . But the [Vietnam] war changed all that."

The strong efforts of youths in the 1960's to reform the system brought them up against hard realities. They came to realize something they had not realized before, something that many older persons wish to close their eyes to. And that is: *the world is basically, fundamentally, corrupt, and it has been all along.* A youth activist of the 1960's pointed to this realization, writing in the *New York Times Magazine* recently: "We had concluded, correctly, that we were living in a rotten, corrupt, morally bankrupt, brutally exploitative system, failing to apprehend only that this meant the world was clicking along as usual."

What, then, is the conclusion to which many youths have come? It is that they cannot do anything to change the corruption that exists; it is rotten through and through, including its politics, commerce and religions. It can't be made into a better world. As another young activist of the

1960's wrote concerning his efforts to improve the world: "These experiences made me feel that the system could not be reformed. I gave up trying to change it —'eat, drink and be merry' became my philosophy." And, judging from what we see, millions of other youths have adopted this same attitude.

"That's the trouble with many youths today," certain older persons may complain. "They are so negative and pessimistic." But young people are likely to reply: "We're not being negative; we're just being realistic." And, indeed, a growing number of persons who have considered the evidence would agree. For example, in the sum-up of the widely publicized Second Report to The Club of Rome, entitled "Mankind at the Turning Point," the conclusion was reached: "We are on a fatal course. . . . The odds seem against man."

Also, Professors Dennis C. Pirages and Paul R. Ehrlich foresee world disaster, explaining in the conclusion of their book *Ark II*: "What is happening and what has been happening in the United States and around the world are symptomatic of an impending massive collapse of the industrial order. We are all now caught in a gigantic tragedy of the commons; each person, each family, and each nation is struggling to stay ahead while the whole system is on the verge of collapse."

Most older persons, however, while agreeing that the world is in a bad state, will argue that it's the only world we have. Therefore, they say, instead of giving up and planning for its collapse, we should be doing all we can to save it, to reform it. But youths today commonly see such efforts at reformation as a waste of time, like trying to empty the ocean with a thimble.

Are young people with such views correct? Is the situation hopeless? Does it make sense to adopt the philosophy 'eat,

drink and be merry, for tomorrow we may die'?

Any Future at All?

It is because of the seemingly hopeless world conditions that many youths began living simply for sensual gratification. But soon many of them could see that this wasn't bringing them real joy or happiness. To the contrary, it often led to heartache. One indication of this is the skyrocketing suicide rate among young people. In the United States, for example, it leaped a staggering 250 percent from 1955 to 1975 for persons aged fifteen to twenty-four.

"So what's the answer, what are you driving at?" the young reader may ask. "Are you going to tell us that if we just be good and live by the 'golden rule' this will solve our problems and we will be happy? Are you trying to say that this will make the world better, and that all those dire calamities predicted will thereby be averted?"

No, we are not trying to say that at all. In fact, whether you live a so-called 'good life' will probably have little, if any, effect on the course of the world. Jesus Christ lived an exemplary life on earth, but that hasn't reformed the world. Nor did Jesus' early disciples succeed in reforming the world. But, then, they didn't expect to, or even try to do so. Does that surprise you?

When we look at what Jesus and his disciples taught about this world, we aren't surprised. Jesus realized that the world system is corrupt, and that it is irreformable. So he pointed to the only realistic solution, explaining that this system must be destroyed. He compared the destruction to that of Noah's day, saying: "For just as the days of Noah were, so the presence of the Son of man will be. For as they were in those days before the flood, eating and drinking, men marrying

and women being given in marriage, until the day that Noah entered into the ark; and they took no note until the flood came and swept them all away, so the presence of the Son of man will be."—Matt. 24: 37-39.

Jesus' disciples were keenly interested in his teachings on this matter. In fact, they had just asked him the question: "What will be the sign of your presence and of the conclusion of the system of things?" (Matt. 24:3) They accepted Jesus' teaching as to the end of the system of things, and one of them later wrote: "*The world is passing away* and so is its desire, but he that does the will of God remains forever."—1 John 2:17.

Perhaps you wonder, Could the end of the world, about which Christ and his disciples spoke, be near at hand? It is of interest to consult Jesus' answer to his disciples when they asked for a "sign" of the conclusion of the system of things. His answer is recorded in the Bible, principally in Matthew chapter 24, Mark chapter 13 and Luke chapter 21.

Jesus there provided a "sign" made up of many features. All these various events, he said, would be occurring just prior to the world destruction. And the remarkable thing is that these very things that he foretold are now happening throughout the world! According to Jesus' prophecy, this means that the destruction of the system is near at hand!

"If that is true," you may say, "why not try to get everything out of life before it is soon cut off? What future is there?"

The point is, the end of this world system will open the way to the brightest future, beyond even our finest imaginations. This is because the end of this corrupt system of things will not mean the end of all life on earth. For recall that the Bible promise quoted above says: "*He that does the will of God remains forever.*" And

the life that will then be enjoyed on earth will be of the highest quality. We can be assured of that because the Bible says of our Creator: "You are opening your hand and satisfying the desire of every living thing."—Ps. 145:16.

ISN'T it true that you are inclined to put confidence in some things, but not in others? If, for example, you read in the newspaper that the sun will rise at a certain time, you probably believe it. Why? Because the movements of the earth and the sun are so regular and precise that such predictions can be accurately made.

But, on the other hand, what if a politician tells you that when he is elected, the rate of unemployment will fall, relations with other countries will improve and economic prosperity will be enjoyed? You have little confidence in what he says, isn't that so? Why? Because, even if he is sincere, you realize that his power and ability to carry out his promises are limited.

Young people, especially, tend to be pessimistic about efforts of men to correct problems. And the fact is, much of the earth becomes more and more polluted every day, its natural resources continue to be squandered, the wildlife is killed off, food shortages increase, the arms race goes on, and so forth. Yet, prospects for the future are not as bleak as some may believe.

Consider for a few moments an often overlooked side of the picture that shows why we can look forward with confidence to what lies ahead.

Reasons for Confidence

If we think about it, we can see in things around us good reasons for confidence as

"But that sounds like wishful thinking," some may say. And yet it is more than that. There are compelling reasons for us to be optimistic about the prospects for a lasting, happy future in a better world. Consider why we say this.

Why We Can Be CONFIDENT A BETTER WORLD IS AT HAND



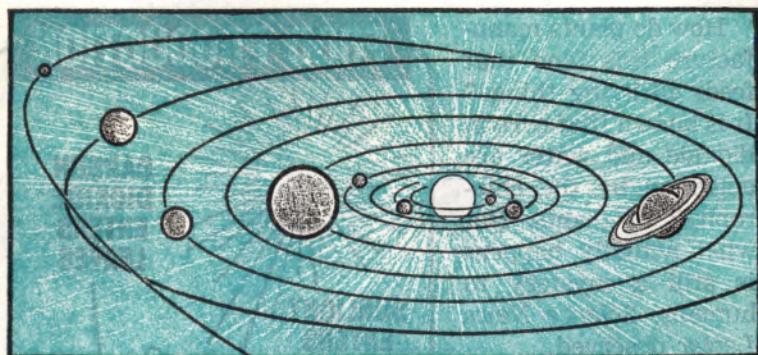
to the future. For instance: The uniform, regular movements of the earth and other bodies in space. Because of their unvarying, reliable orbits, not only can we count on the sun rising at a certain time tomorrow morning, but eclipses can even be predicted centuries in advance. Also, because of the earth's consistent speed of travel, some 66,600 miles per hour, it keeps just the right distance from the sun—not too near and not too far away—for life to be

pleasant and enjoyable on earth.

But there are scores of other factors that make a happy life here possible. The earth consistently makes a complete revolution on its axis every twenty-four hours. This provides regular, predictable hours of light and darkness. But what if sometimes it rotated in ten hours, or thirty hours, or fifty, or whatever? The length of day and night would be unpredictable. There could be no planning; little real work could be accomplished. There would be confusion. And if, as in the case of the planet Mercury, the earth rotated once a year, one half of the earth would be a frozen sub-zero waste and the other half would be a deserted furnace.

Earth's atmosphere, composed of a mixture of different gases, also provides reason for confidence. Like a mighty "ocean" it surrounds our planet. Just as fishes will perish out of water, so we would die if we could no longer breathe this proper mixture of atmospheric gases. But for thousands of years, everywhere around the earth, the atmosphere has remained stable, maintaining just the right mixture for supporting life. And all this time the atmosphere has shielded living things from certain harmful rays of the sun; it has kept the warmth of the earth from being lost in the coldness of outer space, and it has protected humans from meteors, which are usually burned up as they penetrate the upper atmosphere.

A writer in the *New England Journal of Medicine* commented: "The sky is a miraculous achievement. . . . I doubt whether any of us could think of a way



The uniform movements of the planets give reason for confidence in the promises of their Creator

to improve on it, beyond maybe shifting a local cloud from here to there on occasion. The word chance does not serve to account well for structures of such magnificence."

The soil, too, is remarkably designed for our benefit, providing a basis for confidence. A thimbleful of it contains billions of living organisms. Many of these organisms decompose wastes and dead creatures, thus cleansing the earth. Some take nitrogen from the air and change it into nitrogen compounds. This is important, since plants need nitrogen and they cannot utilize it directly from the atmosphere. Doesn't it appear obvious that an Intelligent Source is responsible for the many amazing processes and cycles that make life on earth not only possible, but potentially very enjoyable?

Just consider the function of plants and what this indicates about our future. Maybe you have read comments such as, 'plants send down roots to get water and push up their stems for sunlight.' But ask yourself: 'Why? How?' You know that plants have no brain and so are not capable of conscious thought. Yet could you ever have conceived the vast variety of delicious foods that plants produce for our pleasure?

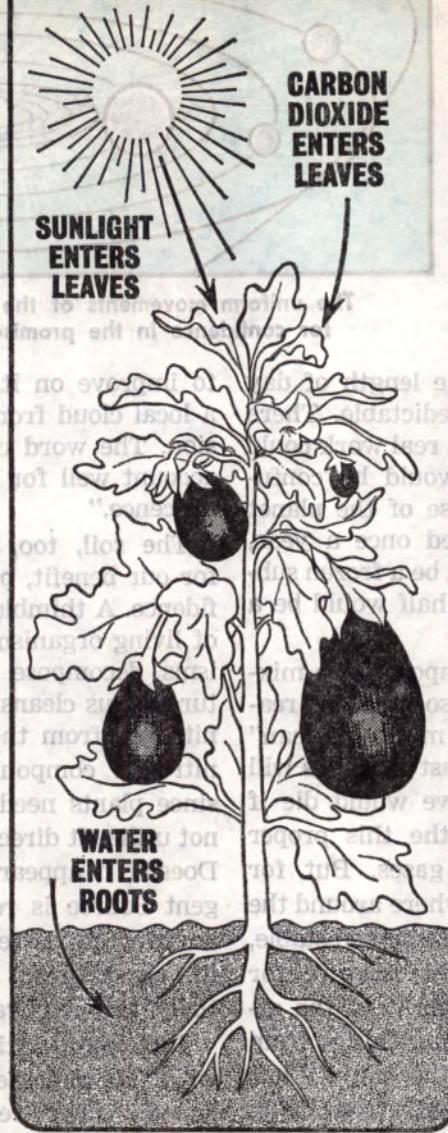
How do plants manufacture this food that feeds all living things? It is known that carbon dioxide and water are acted on by the chlorophyll of plants. But what actually happens is still a mystery to humans. *Science News Letter* observed:

"It is here that the 'deities' perform their miracle. Sunlight provides energy for the great chemical change; and chlorophyll acts as the 'switchboard' that controls the reaction. Under the influence of these two, the carbon dioxide and water now combine to create the basis of all food, a simple sugar. All the numerous fats, proteins and carbohydrates used by plants and animals must be created later from this sugar."

There are hundreds of factors that work together to make life on earth not only possible, but potentially very happy. Consider light. Not only is it vital to the production of all food, but it blesses us with gorgeous color and beauty. The color of things actually is in the light that shines upon them. Amazingly, light can be separated into tens of thousands of hues or colors! How pleasant, how miraculous is light!

Yet it is similar with so many things,

FOOD PRODUCTION



such as the infinite variety of sounds, tastes and smells that contribute toward making our life pleasant and enjoyable. These things are staggeringly complex. Man did not create them. He doesn't even fully understand them all. When we think about it, don't the many processes and cycles make us realize that our planet Earth had a Designer? Yes, the many interdependent factors that work in harmony to sustain life on earth produce a marvelous system far, far more complicated than anything man has designed or built.

What does all the thought and work that we see in earth's complicated functions tell us? It tells us that the Creator of it all is interested in making life pleasant and happy for all those who live here. It thus gives us reasons for confidence in the future. From what we have seen, surely the Creator wants life on earth to be pleasant and happy, and he clearly has the power to carry out his will.

What About Harm Already Done?

True, some people believe that humankind's future on earth already has been seriously damaged. Huge sections of land

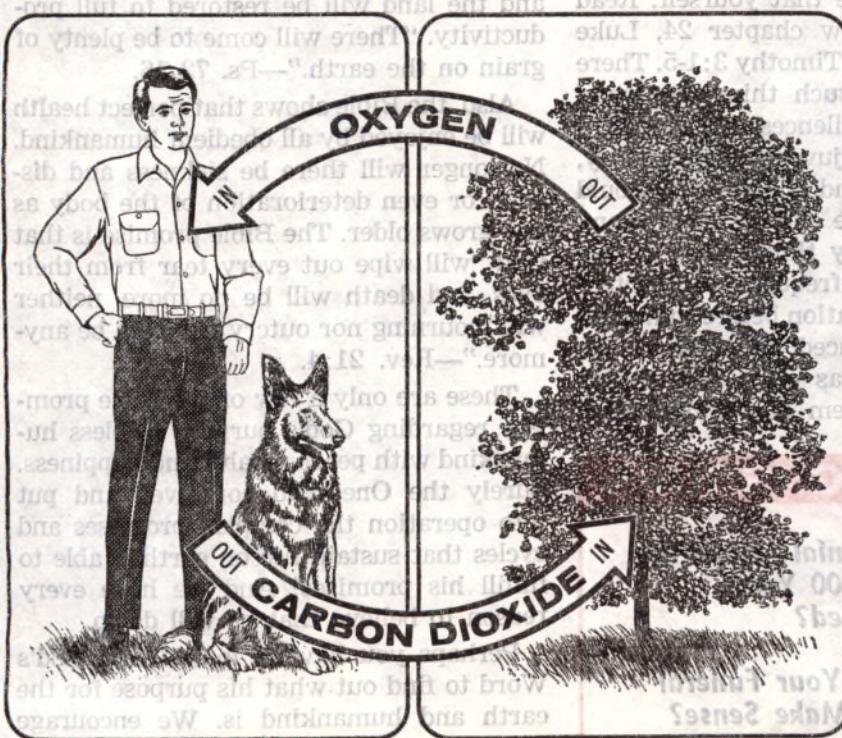
have been misused, which has resulted in destroying or greatly inhibiting its food-producing capabilities. But is this damage permanent?

No, it need not be. Perhaps you are even acquainted with areas that have been terribly damaged by pollution, natural disasters or destructive farming practices. Yet the earth has amazing built-in restorative capacities, as noted in places where destructive fires and volcanic eruptions have devastated the land. In time these areas flourished once again with vegetation. And when man's pollution has been controlled, rivers that once appeared hopelessly ruined have again supported fish and become a healthful place in which to swim.

Even land that was turned into barren wastes due to man's misuse of it can be

restored. A case in point is the Near and Middle East. Once areas there were very fertile, as testified to by ancient histories, but they were then ruined and lay desolate for centuries. In recent times, however, some of this land has been restored to productivity. Food expert Walter C. Lowdermilk, after an investigation for the U.N., concluded that "Israel is restoring to cultivation a land damaged by a millennium of abuse."

So while you may be rightly concerned about man's abuse of the earth, be assured that the harm is not permanent. Young people need not worry that their parents' generation will pollute the environment to such an extent as to ruin it for future generations. Why can we be so sure?



Earth has many marvelous processes and cycles, such as the oxygen-carbon dioxide cycle. Do they not make us realize that our planet Earth had a Designer?

Further Basis for Confidence

This is where the Bible comes in. It tells of the Creator's purpose for the earth and all humankind. It does not direct our hopes toward the present failing system of things, but reveals God's purpose to do away with the mixed-up and ineffective rule of this earth under the hundreds of present political governments. God caused the prophet Daniel to foretell His purpose to replace these

governments with a single government of His own making, His kingdom by His Son Jesus Christ. Note this Bible promise:

"In the days of those kings [or rulerships] the God of heaven will set up a kingdom that will never be brought to ruin. And the kingdom [of God] . . . will crush and put an end to all these kingdoms [political governments of men], and it itself will stand to times indefinite." —Dan. 2:44.

When will this happen? As noted in the previous article, the Bible helps us to determine when by giving a "sign" made up of many features. Within a certain generation all the features of this "sign" would take place. When this occurred, the time for God to bring this corrupt system to an end would be at hand. Is the "sign" now being fulfilled?

You can determine that yourself. Read in the Bible Matthew chapter 24, Luke chapter 21 and also 2 Timothy 3:1-5. There you will note that such things as wars, food shortages, pestilences, great earthquakes, lawlessness, juvenile delinquency, along with anxiety and uncertainty, would mark the time of the end of this system. Aren't these the very things that we see occurring with such frequency and intensity today? No generation before in human history has experienced all these things with such intensity as ours. This means that God's new system has drawn near!

The Bible describes the grand changes that this will soon mean for humankind. God promises to stop for all time the political bickering and fighting. Those who live in God's new system will all be peace-loving persons who have carried out the Bible prophecy at Isaiah 2:4: "They will have to beat their swords into plowshares and their spears into pruning shears. Nation will not lift up sword against nation, neither will they learn war anymore."

With the end of war, armaments races and greedy commercial systems, no more will there be polluting of the air, the water and the land. Yes, the Bible says that God is going to "bring to ruin those ruining the earth." (Rev. 11:18) This means that, in time, the air everywhere will regain its freshness and fragrance, every river and stream will again sparkle with pure water, and the land will be restored to full productivity. "There will come to be plenty of grain on the earth."—Ps. 72:16.

Also, the Bible shows that perfect health will be enjoyed by all obedient humankind. No longer will there be sickness and disease, or even deterioration of the body as one grows older. The Bible promise is that God "will wipe out every tear from their eyes, and death will be no more, neither will mourning nor outcry nor pain be anymore."—Rev. 21:4.

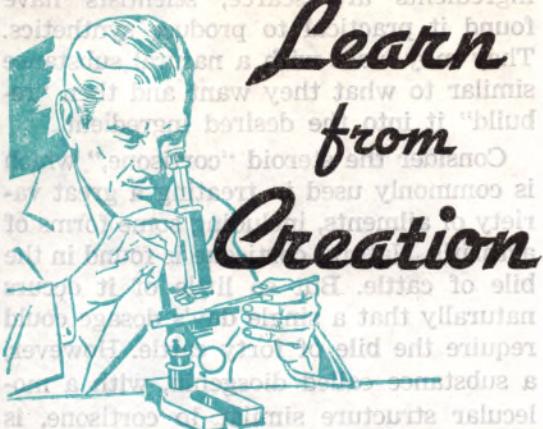
These are only a few of the Bible promises regarding God's purpose to bless humankind with peace, health and happiness. Surely the One who conceived and put into operation the complex processes and cycles that sustain life on earth is able to fulfill his promises! And we have every reason to believe that he will do so.

Perhaps you haven't looked into God's Word to find out what his purpose for the earth and humankind is. We encourage you to do this. You will then see why we truly can be confident that a better world is at hand.

IN COMING ISSUES

- **The Bicentennial—Have the Hopes of 200 Years Been Realized?**
- **Planning for Your Funeral —Does It Make Sense?**
- **Our Atmospheric "Ocean."**

MEN OF MEDICINE



By "Awake!" correspondent in Sweden

HAVE you taken a stroll recently through the woods or an open field? If so, it probably did not occur to you that you were walking about in the oldest and largest "factory" for producing medicine. An investigation will reveal, however, that the natural creation is a most important source of chemical preparations used in treating our aches and pains.

Have you recently had a headache? Likely you reached for aspirin tablets. Aspirin has become a trade name for *acetylsalicylic acid*, which is now mass-produced synthetically. Originally, however, aspirin was produced from a substance discovered in the bark of the willow tree. Willow bark contains salicin. After a process of refinement, salicin produces salicylic acid, which is the base for aspirin, probably the world's best-known pain reliever.

Even the more sophisticated drugs of modern medicine frequently are not new. They can be traced back to Creation. On many occasions scientists have gotten ideas from folk medicine. After noting that

use of certain plants benefited particular ailments, chemists have isolated the active ingredient for mass production. Let us consider some examples.

Plants as a Source of Raw Materials

Plants supply the raw material for many medications. A well-known heart medicine is an example. Some two centuries ago a doctor in England noticed that a certain home remedy helped persons suffering from dropsy, an illness in which fluid collects in various tissues or body cavities. This remedy included leaves of the foxglove plant, which bears the name *Digitalis purpurea* because of its fingerlike purple flower. From foxglove leaves comes the chemical "digitalis," known throughout the world as essential in the treatment of many persons having heart disease. It would be most unwise, however, for anyone to treat himself with these leaves, for they are very poisonous and a correct dosage is of the utmost importance.



Foxglove

Another well-known medicinal plant is *Atropa belladonna*, also called "the deadly nightshade." This is the source of atropine, the best-known member of a class of drugs that relax spasms in a number of organs.

Plants provide raw material for narcotics too. The best-known example is the opium poppy. From dried seed cases of these poppies comes a milky juice called opium (from the Greek word for poppy juice).

As to the effects of the narcotic, a physician of the seventeenth century wrote: "Among the remedies which it has pleased Almighty God to give to man to relieve his sufferings, none is so universal



Belladonna

and so efficacious as opium." The pain-relieving qualities of opium are due to its containing the alkaloid "morphine," named after Morpheus, Greek god of dreams. The well-known codeine (from Greek *kōdeia*, "poppyhead") is a morphine-based pain reliever.

Nearly everyone has heard of penicillin. Perhaps this antibacterial substance has aided you to recuperate from a serious disease. Though penicillin is now manufactured by industry on an enormous scale, did you realize that this "wonder drug" had a humble beginning? It was first derived from mold of the genus *Penicillium*. One of its best strains came about in a culture from the stem of a moldy cantaloupe.

Have you ever heard of "sweet clover disease"? Some fifty years ago it was noticed that certain cattle, due to feeding on improperly cured sweet-clover hay, developed a malady characterized by severe bleeding. Later, scientists isolated the poison that had interfered with normal blood clotting in the cattle. They named the substance *Dicoumarol* and today it serves as an important anticoagulant.

Drugs from Animals

Animals are another source of modern medicines. Organ extracts, primarily from the glands of slaughtered animals, provide substances such as hormones and enzymes that act as ingredients in medicines. For instance, the thyroid hormone *thyroxine*, which is used in treating certain types of thyroid disease is derived from the thyroid gland of animals.

Do you know someone who suffers from diabetes? Perhaps you did not realize that insulin for treating this disease often comes from the pancreas of cattle. However, much insulin today is produced synthetically.

Imitating Creation

Of course, not all medicines contain purely natural substances. Where natural ingredients are scarce, scientists have found it practical to produce synthetics. They may start with a natural substance similar to what they want and then "rebuild" it into the desired ingredient.

Consider the steroid "cortisone," which is commonly used in treating a great variety of ailments, including some forms of arthritis. Natural cortisone is found in the bile of cattle. But so little of it occurs naturally that a single day's dosage could require the bile of forty cattle. However, a substance called diosgenin, with a molecular structure similar to cortisone, is found in certain yams that grow in Mexico. By use of an enzyme extracted from black-bread mold, chemists were able to change a diosgenin molecule into a cortisone molecule. There are now several plant by-products used for producing cortisone.

Vitamin C, essential for good health, is available naturally, but in too small amounts for mass production. Having determined the molecular structure of ascorbic acid, which is pure vitamin C, scientists noticed that it resembled another molecule—glucose. Using acetic-acid bacteria, they were able to "rebuild" the glucose molecule into one of ascorbic acid, thus producing synthetic vitamin C.

Having achieved success at remolding already-existing molecules, chemists soon learned how to form totally new substances, ones not found in nature, but structurally similar to natural ones.

Indeed, many products used in the practice of medicine are simply modifications or synthetic duplications of natural substances. Even in this modern age, therefore, men of medicine continue to learn from Creation.

POISON OAK and IVY

-Very Touchy Subjects-



POISON oak is not an oak, nor is poison ivy an ivy. The names come from the resemblance of their cluster of three leaves to some forms of oak leaf, and from the plant's habit of climbing like an ivy. Several species come under these common names, and all are of the genus *Rhus*. The general practice is to call the bushy types poison oak and the climbing ones poison ivy.

The North American continent is the only continent that plays host to these plants, one variety or another being found in almost every kind of environment, from swamps to dry, hilly terrain. They can be beautiful. The young leaves are a deep-wine color, then they become a glistening green, and finally turn crimson in the fall. Admire them if you will, but keep your distance!

Their sap contains a chemical called urushiol, and a very minute quantity on your skin can give you a painful case of poison ivy dermatitis. The slightest brush against a leaf can cause an itching rash. Blisters develop from which a clear liquid oozes, and severe cases cause swelling and even fever. It takes several hours after contact for the symptoms to appear, and sometimes a few days. The toxin is not superficial, but penetrates the surface of the skin to infect the tissue underneath. That is why it takes time to develop.

It is so easy to contract a case of poison oak that for years it was thought that the plant gave off a miasma or vaporous exhalation that infected persons who never touched it. That is not true, but a person doesn't have to touch the plant with his bare skin to be affected by it. If a person's clothes brush against the plant, he can get it by touching his clothes months later. Petting a dog that has run through a patch of poison oak is sufficient to get a bad

case of it. Smoke from the burning plant can carry the toxic urushiol.

To illustrate the persistence of this poison, a pair of white canvas gloves used to collect poison ivy lay in a closet for ten months, and was then washed in hot water and strong laundry soap for ten minutes. A volunteer then handled the gloves, and the next day he had poison ivy dermatitis! This shows why a usual precaution recommended—washing with yellow laundry soap after a trip in the woods—oftentimes does not work. It is still good advice. It may help, and it can't hurt. Some authorities advocate it if it can be done within thirty minutes after contact, saying that there is a chance that it may inactivate the poison.

Once the rash has started, there are no really effective treatments. It usually has to run its course, taking from two to three weeks to do this. Calamine lotion will soothe the itching. Refraining from scratching will prevent aggravating it and perhaps spreading it. In severe cases a physician may be able to prescribe a treatment that will relieve the suffering. There are several cortisone-like medicines that are used. But once the poison is contracted, it is basically a waiting game for relief to come.

With poison oak the old saying is true: an ounce of prevention is worth a pound of cure. Various creams and ointments are sold to keep the urushiol sap off the skin. They do little good. Some doctors give doses of urushiol, orally or by shots, to build up immunity, but this has not proved very effective. A better protection is clothing that prevents the plant's contact with bare skin. The best preventive is recognizing the plant and keeping your distance. Don't touch it, or anything it has touched.

WORLD COUNCIL OF CHURCHES

FOR centuries the religions of Christendom have been divided. That is nothing new. But today Christendom's fragmentation is at its peak. More religions claim to be Christian.

However, although they all claim to be Christian and to worship the same God, they have different doctrines, practices and political beliefs. Even within the same church there are often profound divisions, such as along lines of race and nationality, as well as those stemming from financial and social barriers.

These divisions have resulted in the greatest contradiction in wartime: members of the *same* religion, and others too, all claiming to follow the "Prince of Peace," slaughter one another.

Attempts to Unite

Such obvious contradictions have turned many people away from the churches—and from God. So various attempts to heal the divisions have been made. One of these attempts at unification has been the formation of the World Council of Churches.

The Council was founded in Amsterdam, the Netherlands, in 1948, with its headquarters located in Geneva, Switzerland. It is presently made up of 286 of the larger church organizations, including Protestant, Anglican, Eastern Orthodox and Old Cath-

-A HOUSE DIVIDED

olic. These represent an estimated 400 to 500 million persons.

At the end of 1975 the Council held its fifth general assembly.

The location, for the first time, was Africa—Nairobi, Kenya. Member churches were represented by 747 voting delegates. Other religions, including the Jewish, Hindu, Buddhist, Moslem and Roman Catholic, sent observers. Pope Paul VI sent a message of greeting.

The theme of the assembly was "Jesus Christ Frees and Unites." Dr. Philip Potter, the Council's general secretary, spoke of the "search for the unity of the church."

Deep Divisions

At the very outset, it became evident that there were deep divisions that it would be impossible to repair. One of these had to do with the changed makeup of the assembly.

In previous assemblies delegates from West European and North American churches had dominated the proceedings. But in Nairobi the churches representing Asia, Africa, Latin America, the Pacific Islands and Soviet-dominated Eastern Europe had the greater voting strength.

Of the 747 delegates attending this religious conference, 439 were from "Third World" (developing) nations and Commu-

nist lands. Together, these constituted nearly 60 percent of the total delegates. This changed makeup was apparent in many issues dividing the Council. Usually, the West European and North American churches supported Western political, social and economic policies. Churches from the Third World and Communist lands had opposing views.

An indication of the difference came when an African delegate hurled this charge at the Council: "I believe there is a conspiracy to tone down this whole assembly to please the North Americans and Europeans because that's where the money is." However, in view of the new majority, that did not happen.

Another example of East-West tension was observed by *Newsweek*. It noted that a Liberian churchman "proposed the most controversial demand of all—a five-year moratorium on sending white missionaries to Africa." The hostility of some African churchmen toward their European and American counterparts was apparent.

Divided on 'Liberation Struggle'

A bitterly divisive issue had to do with 'liberation movements.' The tone in this matter was established at the beginning of the assembly in the keynote address. This was delivered by Dr. Robert Brown, a professor of theology at the University of California.

Although he was from a Western nation, Brown pointed out that "the idea of Jesus Christ as a liberator of mankind offered little comfort to those whom history has seen as oppressors, such as the 'Whites' who as a race conquered, oppressed and exploited so many of the coloured races of the world."

His comments angered Western churchmen. But as other speakers presented their views, it was obvious that the majority of the Council favored a continuation of lib-

eration from Western imperialism.' That theme had been adopted at the Council's last assembly at Uppsala, Sweden, in 1968.

Regarding this issue, an editorial in the *Seattle Times* stated: "In such a changing situation, the people from the undeveloped nations could be heard. They spoke bluntly to delegates from the developed nations. What they had to say may contain the seeds of new debate, confrontation and controversy." The editorial noted "the deep feeling of the nondeveloped world about the fact that the developed world, the United States and others, raped them of their natural resources."

So it came as no surprise when a special committee recommended that the Council should "step up aid to guerrilla groups around the world, and especially in southern Africa." Such support already had been approved at Uppsala when the Council established the "Program to Combat Racism." Under this program funds have been funneled to various guerrilla movements.

The magazine *Christianity Today*, in its January 2, 1976, issue, acknowledged that such funds had been appropriated. And it also reported that the assembly defeated "a motion to restrict grants from the Program to Combat Racism to non-violent groups."

However, the same publication observed that "the Marxist government" in Mozambique was one "which the council helped bring to power." Yet that new government, it said, "has taken a hard line toward the churches and especially toward foreign missionaries." Because of this, some Western delegates saw the support of liberation movements as counterproductive.

The tragic results of divisiveness among the churches was brought to the attention of the Council by Presbyterian clergyman Gordon Gray from Ireland. He declared: "From Ireland we have proclaimed to the world a Jesus Christ who enslaves and di-

vides. Both the Roman Catholic and Protestant churches have found themselves captives of political and social, cultural and religious divisions which we have helped to create and preserve. When the breakdown of our society called urgently for a prophetic word from the Lord we discovered we could not agree on what that word should be."

More Division

Another area that exposed how badly the Council was divided had to do with religious freedom. Attempts were made by some Western delegates to pass a resolution condemning countries where religious freedom is denied.

However, the direction of this condemnation was more clearly seen when an Orthodox priest said: "People are being killed and murdered in so-called socialist countries." It was evident that the main thrust of these attempts was aimed at the Soviet Union.

This attempted condemnation was bitterly opposed. The *National Catholic Reporter* spoke of "the agonizing between East and West when West wanted to specify violations of religious liberty in the Soviet Union." Eventually, only a 'watered-down' version of the proposal was adopted.

But was the Council really interested in religious freedom? No, because it ignored one of the most flagrant and widely known examples of religious oppression in modern times. This is the mass torture, murder, rape and banishment of Jehovah's Witnesses in Malawi.

The German newspaper *Bild* said: "This would be a good opportunity to protest against persecution of Christians in some black African countries. For example... in Malawi where Jehovah's Witnesses have been beaten and their wives raped. What did the World Council of Churches do? It decided to boycott seven banks (among

them) was the Deutsche Bank), because they did business with South Africa. Politics with banknotes instead of help for brothers in distress—that too is a creed, but a bad one."

In the Washington, D.C., *Star*, staff writer W. F. Willoughby asked regarding the persecution of Jehovah's Witnesses: "Will the WCC rise to this poignant but opportune occasion? If not, any other pronouncement it makes against oppression—religious, racial or otherwise—will sound less than convincing."

The Council did not 'rise to the opportunity.' It did nothing, showing that it was more interested in political matters than in religious freedom. Columnist Jeffrey Hart called this failure to condemn religious persecution a "shocking piece of hypocrisy."

No Unity

The fifth assembly of the World Council of Churches did prove something. It proved that Christendom's house is more badly divided than ever.

The Council's general secretary, Mr. Potter, said that "no striking new ideas or phrases emerged," and that attempts at unity were still "in the wilderness." *Christianity Today* added: "That assessment of the World Council of Churches' position, given by its own general secretary, summed up the feeling of many delegates on the last day of the council's Fifth Assembly."

So futile were attempts at unification that, as the assembly ended, one high-ranking Australian delegate said: "You could say it was over before it began." And the Toronto *Star* commented: "Nairobi raised more questions by far than it answered."

Newsweek observed: "It was clear that their internal disputes had weakened the Council's image in the West and the Third

World. And in the midst of its political clashes, the organization seemed to have completely lost sight of its basic religious goal: to bring together Christians from all over the world into a united front."

Yet, the Bible, the basis for Christianity, says that true Christians "should all speak in agreement." It says that "there should not be divisions among you," but that Christians should "be fitly united in the same mind and in the same line of thought."—*1 Cor. 1:10.*

The Bible also says that those who profess to serve God but who hate their spiritual brothers are liars. And it identifies as children of the Devil those who slaughter their brothers.—*1 John 4:20, 21; 3:10-12.*

It is little wonder that columnist Jeffrey Hart said: "The fifth assembly of the World Council of Churches solemnly assembled in Nairobi, Kenya, presented a stomach-turning spectacle of moral and spiritual illness."

Part of the World

The assembly also proved that the churches were far removed from true Christian teaching when they agreed to become even more heavily involved in the political affairs of this world. *The Christian Century* reported: "To be, or not to be, in the world—that is *not* the question. The question is whether to be involved up to the ankles or the ears. The Assembly opted for the maximum."

Helping to assure that this would be the case was the fact that one of the newly

elected presidents of the Council was the Russian Orthodox Metropolitan Nikodim, the archbishop of Leningrad. He supported the Council's aid to liberation groups and said: "I feel that as one of the presidents, I now feel even more concern for this kind of work."

Yet, Jesus said that his true followers would be "no part of the world." (John 17:16) God's Word also says: "Whoever, therefore, wants to be a friend of the world is constituting himself an enemy of God."

—*Jas. 4:4.*

The churches have indeed rejected God's Word and purpose. They have turned their backs on the only hope for mankind, God's heavenly kingdom, and the new order it will bring here on earth.

Where Headed?

The divided state of the World Council of Churches shows that there is no possibility that God is backing it. "God is a God, not of disorder, but of peace."

—*1 Cor. 14:33.*

Instead, the Babel-like confusion of doctrines and practices contrary to God's will identifies it as part of the harlot called "Babylon the Great" in Revelation chapter 17. And its future is clear. That prophecy shows that it is headed for total annihilation at the hands of the very ones with whom they now play the harlot—the political forces of this world.—*Rev. 17:16.*

Jesus foretold: "Every city or house divided against itself will not stand." Neither will the divided house of the World Council of Churches.—*Matt. 12:25.*

"As a Thorny Weed"

"As a thorny weed has come up into the hand of a drunkard," says Proverbs 26:9, "so a proverb into the mouth of stupid people." One who is intoxicated can injure himself or others as with a thorny weed. Similarly, the person lacking understanding can do damage by misusing a proverb, applying it in a way that does not fit.



—INSECT MENACE OF THE NIGHT?

THE shades of night have fallen and darkness prevails. You have retired early, hoping to enjoy hours of peaceful slumber. But a familiar whine breaks the stillness of the warm, balmy evening. Your bedroom has been invaded! Tense, worried, fearing the worst, you wait. You feel nothing and think the danger is past. But too late you realize that you have become a victim. Incessant itching reveals that you have not escaped the sting of what you might be inclined to dub 'the insect menace of the night'—the mosquito.

From now till the end of summer, you are determined that any opened windows will be screened. In fact, you may use oils and sprays on exposed parts of your body—all in an effort to discourage assault by the menacing mosquito. Of course, you are not the first to wage such warfare. It is said that the Egyptians were using smudge pots and mosquito nets for the same reason some thirty centuries ago.

Yet, your best defense may be a better knowledge of this foe. What are mosquitoes really like? Why do they "bite" people? Do these insects serve any useful purpose?

From Egg to Adult

Mosquitoes are insects of the order Dip-
tera, meaning "two-winged." There are
over 2,500 species and they certainly are

widespread. You can find them breeding in hot tropical pools or cold Arctic waters!

Mosquitoes go through four stages: (1) egg, (2) larva, (3) pupa, and (4) adult. Through the ovipositor in the abdomen, the female may lay some 100 to 300 eggs on a single occasion. Certain species form eggs into a raft of sorts, held together by a substance the female emits. The eggs may be laid in a marsh or even a little pool in a ditch or a hollow log. Hatching may occur in two or three days, except for species like the pond mosquito. Some of its eggs, deposited in a dried-up pond, do not hatch until they have been soaked three times. Otherwise, they might hatch during a brief wet period and the larvae would perish when the pond became dry again. Floodwater mosquitoes lay eggs in mud resulting from a flood, and these do not hatch until another flood has occurred, possibly after years have passed.

Frequently called the wriggler for its movements through the water, the larva of the mosquito is wormlike in appearance. Around its mouth are tiny hairs that sweep in food—minute plants, single-celled creatures called protozoans, and even other wrigglers. To breathe, some mosquito larvae push a sort of snorkel or air tube above the water. In one swampland species, however, the air tube is pointed and the larva jabs it into a cattail, sedge or

other plant to obtain oxygen. Many mosquito larvae molt, or shed their skins, four times in some four to ten days.

After the final molt, the creature becomes a pupa. It breathes through tubes on its thorax that are sent above the water's surface. In certain species, these tubes are used to obtain oxygen from underwater plants. Because of the way the pupae of most mosquito species roll about, they are called tumblers. They eat nothing and undergo quite a change in a few days.

Emerging from the pupal shell is the adult mosquito. It begins flying after its wings dry. Mr. Mosquito may live only ten to twenty days and his "lady friend" a month or more. Of course, life-spans vary according to species. Some female mosquitoes may survive the winter in your garage or barn.

"Boy" Meets "Girl"

Mr. Mosquito pays no attention to his female counterpart during the first day or two of his adult life. It takes that long for the tiny hairs on his antennae to dry out, enabling him to hear. But then just let the "young lady" fly by! The whine of her wings strikes his "feelers," and impulses are sent to his brain. In mosquito jargon, the message must be "It's a girl!" Quickly, Mr. Mosquito seizes the female and mates with her.

New Zealand's *Opifex* mosquito can hardly wait to mate. Males continue flying over breeding waters just waiting for pupae to come to the surface! The eager males actually mate with the females before they manage to get out of the newly opened pupal shell.

A Physical Check-up

An adult mosquito's body is made up of the head, thorax and abdomen. On the head are two compound eyes with thousands of lenses, each eye able to function

independently. Between the eyes are two antennae, with which the insect hears and smells.

The menacing part of mosquito anatomy is a funnel-shaped mouth. Wide at the head, it narrows into a tubular proboscis. Incidentally, only Mrs. Mosquito can "bite" you. The "boys" of the "family" are not equipped to cause such torture. But, more about that later.

A short neck joins the head to the thorax. To it are attached the insect's three pairs of legs, as well as two wings through which blood-carrying veins show clearly. Scales, sometimes quite colorful, cover the wing edges and the veins. The whine you hear when a mosquito nears is the sound of its wings in motion. Rodlike parts (halteres) behind the wings enable the insect to maintain balance. During flight, they vibrate at the same rate as the wings. Also, by developing harmonious vibrations in the air and its thorax, the mosquito is said to get "more flaps out of its wings than its nerves or muscles could sustain alone."

In the mosquito's long tubelike abdomen are situated the stomach and the intestines. The insect breathes through small holes called spiracles. There are eight pairs of these in the abdomen and two pairs in the thorax.

The mosquito's body is covered by an elastic shell. And these troublesome insects come in an assortment of colors. Most of them are black, brown, tan or gray, but some are green or blue. Markings in white or light colors appear on the backs, wings or legs of a good many species, though it is unlikely that you will be admiring their decorations when under assault.

Are All Mosquitoes Disease Carriers?

That question may well be asked, since most people have heard that these insects transmit various diseases. When there was

an outbreak of yellow fever in New Orleans, Louisiana, the "culprit" turned out to be a type of mosquito that seemingly preferred to lay its eggs in a flower vase. Why, these insects were breeding in the water of flower vases that had been placed on the graves of yellow-fever victims!

Back in 1878, it was found that the *Culex quinquefasciatus* mosquito transmitted filariasis, a malady causing glands and limbs to swell and sometimes resulting in elephantiasis. Within another nine years certain kinds of *Anopheles* mosquitoes were identified as carriers of malaria. By 1900 it was known that yellow fever was carried by the *Aedes aegypti*.

Certain mosquitoes do carry over a dozen human maladies. Actually, however, very few species are disease carriers. So you do not necessarily have that to worry about when attacked by this insect. Nevertheless, you may be wondering why these creatures pick on you in the first place. In fact, it might be asked:

Why Are You So Attractive?

Researchers have concluded that bodily warmth and the moisture of human skin are factors that attract mosquitoes. They may also be drawn by lactic acid in an individual's perspiration and breath, as well as by the carbon dioxide exhaled by animals and people. In fact, the amino acids and hormones in the human body's fluids may draw mosquitoes. There is nothing you can do about any of these things, unless you stop breathing.

Women may draw a little comfort from the fact that Mrs. Mosquito usually finds men more attractive. For that matter, these insects customarily assault the most "attractive" individual in a group. So, you may escape while an associate is virtually being "devoured." Of course, this attractiveness has nothing to do with beauty or good looks. But, then, how could anyone

be disappointed about not appealing to menacing mosquitoes?

How Mrs. Mosquito "Bites"

Since you probably have been victimized by the mosquito, you deserve to know how it happened. Well, the source of irritation is not a mouth that opens and closes like your own. Rather, it is the female mosquito's proboscis that causes the torment. Forming its center are six stylets, needlelike lancets set in six minute grooves. To be more specific, two stylets are mandibles, two are maxillae, one is the upper lip and the last a lancet with a channel for saliva. When not in use, these stylets are covered by the lower lip, which promptly moves out of the way when Mrs. Mosquito decides to "let you have it." She jabs you with her armed proboscis, and you may not even be aware of the wound unless she hits a sensitive spot, because the "lady" gives you a quick-acting anesthetic.

The puncture completed, Mrs. Mosquito's saliva flows freely into the wound. Since this thins your blood and keeps it from coagulating, she has no trouble in sipping it through a groove in her upper lip, just as a person might sip soda through a straw. The drinking spree over, the "lady" removes her "needle" and flies away quite satisfied with perhaps three or four times her weight in your blood. Unwittingly, you have contributed to the increase of the mosquito population, for Mrs. Mosquito needed your blood to develop the eggs inside her body.

Since only female mosquitoes assault humans and animals, you may have a more friendly attitude toward the male. His fare is plant nectar. Actually, such juices are the chief food of the female mosquito too, but you may wonder about that after an encounter that leaves you with an itching welt.

To ward off the insect menace of the night, people living in the tropics often sleep under mosquito netting. Also, various other steps are taken to avoid mosquito-transmitted diseases. One way in which yellow fever can be prevented is through the use of a vaccine. Malaria control ranges from insecticide use to swamp drainage and spraying chemicals or oil on breeding areas. A thin film of oil on the water prevents larvae from breathing because they are unable to get air at the surface.

Control of filariasis depends largely on the use of insect repellents and insecticides. Man has fought mosquitoes by draining marshlands or spraying insecticides over wide areas of field and forest. Individuals spray insecticides in their houses, hoping to put an end to mosquito forays. How do repellents work? Well, the moist, warm, carbon-dioxide-laden stream of air around a person attracts mosquitoes. Sensory hairs on their antennae detect the stream and the insects eventually locate the source. But insect repellents generally foil Mrs. Mosquito because these apparently prevent the moisture sensors on her "feelers" from functioning normally. In a way, she gets the idea that she has

missed her object and so flies elsewhere.

Experiments undertaken by Dr. W. A. Brown at the University of Western Ontario indicate that the kind of clothing you wear affects your "attractiveness" as far as mosquitoes are concerned. Allen Rankin writes: "In his experiments Dr. Brown found that one tenth as many mosquitoes landed on white clothing as on dark. In general, the lighter the color, the fewer mosquitoes attracted. Texture most avoided—luminescent satin."—*Marvels & Mysteries of Our Animal World*.

Are They Any Good at All?

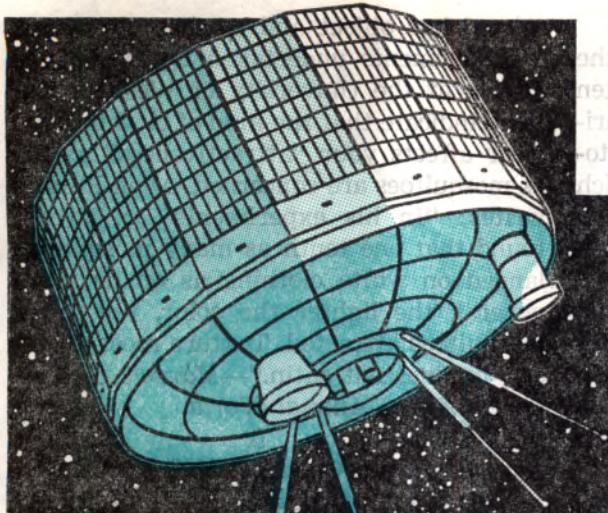
That is a good question, and likely many people would say, "No. Mosquitoes are no good!" But some researchers suggest that the male mosquito, whose fare is the juice of plants, plays a part in pollinating wild flowers of some types. Also, mosquitoes are said to be a significant food source for certain animals, birds, other insects and even fish.

Not all mosquitoes are dangerous villains. Disturbing though these insects can be, they do serve useful purposes. At least you need not fear every mosquito, even if you view their kind as the insect menace of the night.

Why a Dove?

- Immediately after Jesus' baptism in water, "the holy spirit in bodily shape like a dove came down upon him." (Luke 3:22) This descent of the spirit may have been comparable to the fluttering of a dove as it nears its perch.

Doves were used by the ancient Israelites for sacrificial purposes. (Mark 11:15; John 2:14-16) The bird symbolized innocence and purity, as is evident from Jesus' telling his followers: "Prove yourselves . . . innocent as doves." (Matt. 10:16) It was a dove released by Noah from the ark that brought back an olive leaf, indicating that the floodwaters were receding. (Gen. 8:11) This pointed to the fact that a time of rest and peace was at hand, for it had been foretold regarding Noah: "This one will bring us comfort from our work and from the pain of our hands resulting from the ground which Jehovah has cursed." (Gen. 5:29) Thus, at Jesus' baptism, the dove could appropriately call attention to the role of Jesus as the Messiah, the pure and sinless Son of God. And his sacrificing his life for mankind would lay the basis for a period of rest and peace during his rule as king.



"TYPHOON!"

The word strikes terror into the hearts of Chinese, Japanese, Filipinos, Guamanians and Micronesians. It is a word of Chinese origin used west of the 180th meridian to describe a storm that attains a wind speed of seventy-five miles per hour or greater. East of that imaginary north-south dividing line such storms are called hurricanes.

Every year dozens of these howling windstorms sweep through the area of the Pacific and Indian Oceans. On occasion ty-

phoons veer over mainland China, causing great destruction of life and property. At times, Japan is battered by two typhoons at one time, with floods and landslides causing great loss of life.

Huge amounts of energy are released during a typhoon, or hurricane. "It is estimated," notes the *Encyclopaedia Britannica* (1974 edition), "that a mature hurricane may export more than 3,500,000,000 tons of air per hour."

How do these massive storms get their start? What is it like to live through one? Can they be spotted far enough in advance to enable persons to escape their destructive fury?

The ITCZ

Have you ever heard of the "intertropical convergence zone"? Known also by its initial letters ITCZ, this is a belt of converging trade winds and rising air that encircles the earth near the equator. This zone is a seedbed of tropical storms, for

Spotting

THE FURIOUS TYPHOON

BY "AWAKE!" CORRESPONDENT IN HAWAII

here the sun's heat warms up air and water more than in any other area on earth. With what effect?

Water from the ocean's surface continually evaporates and rises with the warm air to form clouds. When conditions are right, several updrafts of warm air may combine, producing a chimney effect. As the chimney continues to grow, it will start spinning due to the rotation of the earth. Air pressure at the chimney's bottom drops rapidly, drawing in still more air and moisture from outside the rotating column. It is similar to when water is sucked in at the bottom of a sipping straw. The warm, humid air may rise to a height of thirty to thirty-five thousand feet, where it encounters a blanket of cold air. Then it spreads out; the moisture condenses and begins falling as rain, whirling faster and faster with the winds as the storm develops.

Water in the "eye" of such a storm may be ten to fifteen feet higher than the surrounding ocean. A severe typhoon or hurricane may churn up ocean waves to a height of some fifty to a hundred feet. Can you imagine the destructive force of such huge billows? The fury of winds at typhoon or hurricane force has been known to drive small splinters through large trees, carry huge ships ashore, and wreck trains.

As an example of a typhoon's fury, on October 7, 1737, storm-tossed waves some forty feet high smashed into Calcutta, India, killing 300,000 persons. On Monday, August 16, 1971, typhoon Rose pelted the island of Hong Kong with rain and winds up to 120 miles per hour. The ferocious storm peppered Hong Kong's rocky beaches with some forty oceangoing vessels that were torn from their anchorages. Concerning hurricane Fifi, which swept across Nicaragua, Honduras, El Salvador, Guatemala and Belize last September, an article in *Reader's Digest* reported:

"Fifi saved her worst malevolence for Choloma and other towns on both sides of the Merendón Sierra. A slow-moving hurricane may dump five to ten inches of rain on flat country. It can pour five times that much on a mountainous area. In Choloma, Manuel Becerra's Texaco station sits a few feet higher than the surrounding land. 'As the water rose, people began coming from the low-lying areas,' he said. 'By midnight at least 800 people were huddled around the station.'

"Then the deluge began. 'In even a hard rain you can see individual drops,' he said. 'But suddenly a solid curtain of water poured from the sky.'

"The downpour continued for four hours. The saturated earth on the steep Merendón could hold no more. Suddenly, thousands of tons of earth, rocks and trees slid downhill. In Ocotillo, Arcadio Gámez heard the roar. He rushed outside, firing his pistol into the air to alert other residents. About 40 followed him higher up the mountain. In shock they watched every house in the village hurled into the ravine. 'It looked as if the mountain were floating,' said Gámez. Thirty-one luckless people from Ocotillo were swept down the corridor of death in a churning mélange of earth, houses, boulders, cattle and huge trees."

Before Fifi's fury subsided, the hurricane claimed the lives of some 7,000 to 8,000 persons and left hundreds of thousands homeless in resultant floods and landslides. In the town of Choloma, mentioned above, 2,700 of its 5,000 inhabitants were reported dead.

Is there a way to avoid such terrible consequences? Can hurricanes and typhoons be spotted far enough in advance to make for large-scale preservation of life?

Detecting the Birth of a Storm

Due to poor communications facilities, in years gone by a rapidly falling barometer indicating a swift drop in air pressure was about all the advance warning that people would get. However, this often happened too late for them to escape a storm's

fury. Later, with the spread of radio communications, volunteer observers in the island chains were able to provide a few hours of advance warning that a storm was in the making.

Then came radar with its capacity to detect a typhoon's spiraling cloud formation. However, since radar signals travel in a straight line, whereas the earth curves, radar detection of typhoons is possible only when the storm comes within about two hundred miles of a radar instrument.

By far the most helpful means for spotting typhoons are weather satellites. One of them, which circles the earth in a north-south direction, scans an area of 2,000 by 2,000 miles every four and a half minutes. What the satellite "sees" is recorded on magnetic tape for readout at two command stations in the United States, one at Fairbanks, Alaska, and the other at Wallops Island, Virginia.

The facilities of this satellite enable weather stations at Guam, Wake Island, Honolulu and many other locations to know about atmospheric conditions for hundreds of miles around them. Forecast offices at Honolulu and Guam evaluate the cloud pictures received and check for any cloud patterns typical of a tropical storm or typhoon.

Another weather satellite has its orbital speed set so as to remain in a fixed position at a Pacific equatorial point. This enables weather stations to receive photographic coverage of most of the Pacific basin every twenty-two minutes. A similar satellite serves over the Atlantic Ocean.

When a Typhoon Is Imminent

What happens when a typhoon pattern appears on a weather-satellite picture? At such a time weather stations throughout

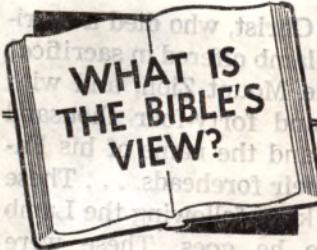
the area are alerted. Steps are taken for the preservation of life and, to the extent possible, to minimize damage to property. But that is not all.

Weather stations send aloft large balloons with transmitting equipment. Special receivers track these instruments, which provide information about temperature, humidity, wind speed and direction all the way from the surface of the storm to an altitude of about seventeen miles. Besides this, special typhoon hunter planes are dispatched from Guam or the Philippines to track a storm in progress and to radio back information about wind speeds at various locations from the edge of the storm to its very center, as well as sea conditions. An eyewitness reports what it is like to ride in such a plane:

"It was as dark as midnight. In the never-ceasing turbulence our 120,000 lb. airplane was bounced around like a cork in a rapid . . . Imagine if you can, a cubicle about the size of an ordinary bathroom, along with two tons of electronic gear, thermos bottles, rescue equipment and the crew, and then stir it all well."

Spotting and tracking typhoons right from their birth is of the utmost importance. For example, the coral-atoll type of islands, where many Micronesians live, are especially vulnerable to storm waves, for these islands are, on the average, no higher than twenty feet above sea level. Ships at sea, too, appreciate storm warnings that allow sufficient time to get out of harm's way.

Indeed, much progress has been made in providing advance warnings of furious typhoons or hurricanes. Unfortunately, though, many lives are lost due to such warnings being ignored. In view of the destructive forces unleashed by such howling tropical windstorms, it is wise to flee from their path as quickly as possible.



What Does It Mean to Be "Born Again"?

A BASIC requirement for gaining entrance into the heavenly kingdom is one's being "born again." Said Jesus Christ to the Jewish ruler Nicodemus: "Most truly I say to you, Unless anyone is born again, he cannot see the kingdom of God." (John 3:3) But what does it mean to be "born again"? To answer this question, we must examine what else Jesus pointed out to Nicodemus.

Reporting on the conversation between the Son of God and Nicodemus, the apostle John wrote: "Nicodemus said to him: 'How can a man be born when he is old? He cannot enter into the womb of his mother a second time and be born, can he?' Jesus answered: 'Most truly I say to you, Unless anyone is born from water and spirit, he cannot enter into the kingdom of God. What has been born from flesh is flesh, and what has been born from the spirit is spirit. Do not marvel because I told you, You people must be born again. The wind blows where it wants to, and you hear the

sound of it, but you do not know where it comes from and where it is going. So is everyone that has been born from the spirit.'"—John 3:4-8.

Jesus' words indicate that a spiritual rebirth is involved and that both water and spirit play a role in this. But how is a person "born from water and spirit"?

The answer to this question becomes clear when we consider the work of John the Baptist. On one occasion Jesus Christ stated: "The Law and the Prophets were until John. From then on the kingdom of God is being declared as good news, and every sort of person is pressing forward toward it." (Luke 16:16) So the activity of John the Baptist served as a preparatory arrangement for those of his own people to be in line for entrance into the heavenly kingdom.

Only by acting in harmony with what John proclaimed could a circumcised Jew come in line for this marvelous privilege. As Jesus Christ told unbelieving religious leaders of Judaism: "Truly I say to you that the tax collectors and the harlots are going ahead of you into the kingdom of God. For John came to you in a way of righteousness, but you did not believe him. However, the tax collectors and the harlots believed him, and you, although you saw this, did not feel regret afterwards so as to believe him."—Matt. 21:31, 32.

Those harlots and tax collectors therefore submitted to water baptism by John. Of course, the baptism in itself did not put individuals in line for the heavenly kingdom. This is clear from what John the Baptist told certain Pharisees and Sadducees who wanted to be immersed: "You offspring of vipers, who has intimated to you to flee from the coming wrath? So then produce fruit that befits repentance." (Matt. 3:7, 8) Accordingly, 'being born of water' involves water baptism, but such baptism must be preceded by repentance and a turning around from a wrong course. This is one essential for membership in the kingdom of the heavens.

A person's being "born from the spirit" points to yet another baptism. John the Baptist called attention to this, saying: "I, for my part, baptize you with water because of your repentance; but the one coming after me [the

Christ] is stronger than I am . . . That one will baptize you people with holy spirit." —Matt. 3:11.

On the day of Pentecost of 33 C.E., some 120 baptized disciples of Jesus Christ experienced such a baptism with holy spirit. As a visible proof of that baptism, they were empowered to speak in foreign languages. Explaining that Jesus Christ was the one partly responsible for this, the apostle Peter said to an astonished crowd: "Because he was exalted to the right hand of God and received the promised holy spirit from the Father, he has poured out this which you see and hear."—Acts 2:33.

By thus being born of spirit, those disciples became spirit-begotten sons of God, with the prospect of heavenly life. They are Kingdom heirs in association with Jesus Christ. Commenting on this in his letter to believers at Rome, the Christian apostle Paul wrote: "You received a spirit of adoption as sons, by which spirit we cry out: '*Abba, Father!*' The spirit itself bears witness with our spirit that we are God's children. If, then, we are children, we are also heirs: heirs indeed of God, but joint heirs with Christ."—Rom. 8:15-17.

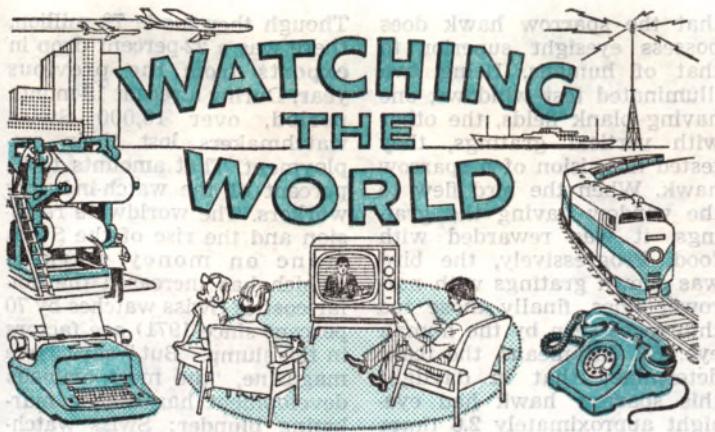
As Jesus told Nicodemus, persons "born from the spirit" are like the wind. In what way? This is because the original Source of their spirit-begettal is Jehovah God. This cannot be discerned by humans generally, any more than they can see the blowing wind. They may hear the sound of the wind and can observe its effects. Similarly, they may note the effects that God's spirit is having on those who are "born again." But they cannot fully appreciate the cause of these effects nor do they comprehend the heavenly destination toward which spirit-begotten persons are moving.

The Bible book of Revelation gives a specific number for those associated with Jesus Christ in rulership. We read: "Look!

the Lamb [Jesus Christ, who died a sacrificial death like a lamb offered in sacrifice] standing upon the Mount Zion, and with him a hundred and forty-four thousand having his name and the name of his Father written on their foreheads. . . . These are the ones that keep following the Lamb no matter where he goes. These were bought from among mankind [not from just one nation of people like the Israelites] as firstfruits to God and to the Lamb."—Rev. 14:1-4.

But what of the rest of humankind? Must they, like the 144,000, be "born again"? No, for not all who gain God's approval are associated with Jesus Christ in rulership. The majority will be earthly subjects of God's kingdom by Christ. As such, they will witness the fulfillment of Revelation 21:4: "[God] will wipe out every tear from their eyes, and death will be no more, neither will mourning nor outcry nor pain be anymore. The former things have passed away." Since they have earthly prospects, they are not begotten by God's spirit. Such begettal serves to engender within an individual a heavenly hope—a hope that is not shared by the earthly subjects of the Kingdom. Nevertheless, God's spirit operates upon all his servants, just as it did upon faithful men and women of pre-Christian times. It enables them to reflect its fruitage in their lives—"love, joy, peace, long-suffering, kindness, goodness, faith, mildness and self-control."—Gal. 5:22, 23.

So, then, the only ones who are "born again" are persons who will be associated with Jesus Christ in heavenly rulership. They are born of both water and spirit, that is, they have been baptized in water and have the spirit's witness that they have been adopted as sons of God. Without thus being born of water and spirit they could never hope to inherit the heavenly kingdom.



Record-breaking

Meteorite Fragment

◆ The explosion of a meteorite high above China's Kirin Province sent over a hundred stones plummeting to the earth on March 8. One chunk reportedly weighed 3,894 pounds (1,766 kilograms). It is thought to be the biggest meteorite ever observed while falling, though it is not the largest found after unobserved descents.

Overworked Wives

◆ The journal *Industry Week* cites two studies indicating that secularly employed wives generally are overworked because their husbands give them little aid with chores at home. One study, undertaken by the International Labor Organization, holds that, considering household tasks, many working wives have a 70- to 80-hour workweek. A separate study by the Stanford Research Institute reportedly holds that husbands help "only with self-selected tasks and for a very small fraction of the total housekeeping hours."

Ersatz Caviar

◆ United Press International reports that Soviet scientists are prepared "to launch artificial caviar to replace eggs from the pollution-threatened sturgeon." After years of ex-

perimentation this "caviar" was produced at the Academy of Sciences Institute. UPI says that the Soviet newspaper *Moskovskaya Pravda* has given the basic ingredients as milk albumin, casein, fish fats and oils, water and salt. A Russian scientist who sampled the experimental product a while ago is quoted as saying, "The taste was terrible." But since then the fully developed artificial caviar has been sold in some of Moscow's shops and is said to have "evoked a generally favorable response."

Fewer Physicians Smoking

◆ The American Cancer Society reports that there has been a sharp decline in the number of American physicians who smoke cigarettes. Only about one out of five do so. A periodic survey of 5,604 doctors has indicated that 38.6 percent were smoking cigarettes in 1959, but this had dropped to 28.3 percent by 1965 and was just 19.2 percent by 1972. Of those polled, 5,407 were men and 197 were women doctors. Among the female physicians surveyed, smokers had dropped only from 34.4 to 23.7 percent between 1959 and 1972. Eighteen percent of the original 5,604 doctors have died and 2,426 replied to the 1972 poll.

Catholic Downtrend

◆ A poll by the Catholic cleric and sociologist Andrew Greeley and his associates of the independent National Opinion Research Center indicates that there has been a downward trend in Church observance among United States Roman Catholics. The survey involved almost a thousand persons who were polled in both 1963 and 1974. Though the number receiving Communion weekly had risen from 13 to 26 percent, those attending Mass each week had dropped from 71 percent in 1963 to 50 percent in 1974. By then only 17 percent made confession weekly, compared with 38 percent in 1963. Those favoring Church-disapproved artificial contraception had grown from 45 to 83 percent during the same period. By 1974, 43 percent were in favor of sexual relations between engaged individuals, whereas only 12 percent had held that view back in 1963. Also, while 70 percent had thought that the pope held his authority in direct line from Jesus Christ, by 1974 that idea was accepted by only 42 percent.

Carbon-Monoxide Poisoning

◆ Though carbon-monoxide gas has no telltale odor or color, it can be lethal. Poisoning symptoms may include headache, sleepiness and an abnormally brilliant and glaring appearance of oncoming automobile headlights. To reduce the peril linked with this dangerous product of a running auto engine, the motor should be correctly tuned and the exhaust system should be in good condition.

Spread of Rabies

◆ During recent years, rabies has been advancing at a rapid pace from Poland's forests across Europe. Reportedly, the disease now is spreading through France at 25 miles (40 kilometers) yearly along a 700-

mile (1,126-kilometer) front. Because of strict regulations, such as a six-month quarantine for a pet dog brought into Britain, that land has been nearly free of rabies. However, fear exists that the disease will be brought across the English Channel, perhaps by a person who succeeds in smuggling an infected pet into the country. An individual contracting rabies will die if proper treatment is not received within a few days.

Big Borrowers

◆ Last year the International Monetary Fund made \$4.8 billion available to countries having oil-associated balance-of-payments difficulties. Of that sum, Italy borrowed 20 percent and Britain approximately 25 percent. That put those two nations in the lead among lands obtaining loans for that purpose.

Second Opinion on Surgery

◆ Certain unions require that patients get a second opinion regarding elective surgery. In other unions, the program is voluntary and patients can choose to request a second opinion. According to recently published results of a study, in the mandatory programs 16 percent of recommended surgical operations were found to be unnecessary, whereas the figure was 35 percent in the voluntary programs. The New York *Daily News* quotes Dr. Eugene McCarthy of Cornell University Medical College as stating: "The impact of our findings more than justifies the wide adoption of second-opinion elective surgery for appreciable improvement in the quality of care and effective cost utilization."

"Eyes like a Hawk"

◆ The foregoing expression denotes acute vision. But is that saying based on fact? Recently, three researchers at Vanderbilt University found

that the sparrow hawk does possess eyesight superior to that of humans. Using two illuminated test windows, one having blank fields, the other with vertical gratings, they tested the vision of a sparrow hawk. When the bird flew to the window having the gratings, it was rewarded with food. Progressively, the bird was shown gratings with narrower lines, finally those too thin to be seen by the human eye. By this means, the team determined that in daylight this sparrow hawk had eyesight approximately 2.6 times more acute than that of humans. Putting those findings another way, *Science News* says that that bird's visual ability was "the equivalent of reading an eye chart at 100 yards or a traffic sign half a mile away."

Surplus Pilgrim Medals

◆ When the 1975 "Holy Year" concluded, the Vatican reportedly had about a million leftover pilgrim medals on hand. According to the *National Catholic Reporter*, "They had cost about 50 cents, but today an Italian company, whose letterhead claims authorization of the Holy Year Central Committee, is selling them for \$5." Central committee president Cardinal Maximilian de Furstenberg admitted late in November: "The medals did not sell as well as we might have wished."

United States Immigration

◆ From 1820 to 1974, reports *Parade* magazine, 46,712,725 immigrants gained entry into the United States. By far the majority were Europeans. They constituted 76.8 percent of the total, or 35,888,309 persons.

Swiss Watch-Industry Slump

◆ Watchmakers in Switzerland produced almost 40 percent of the timepieces manufactured world wide last year.

Though they made 79 million, there was a 22-percent drop in exports from the previous year. During a recent 18-month period, over 16,000 Swiss watchmakers lost their employment. That amounts to 21 percent of the watch-industry workers. The worldwide recession and the rise of the Swiss franc on money markets (which has increased the dollar cost of Swiss watches by 70 percent since 1971) are factors in the slump. "But," says *Time* magazine, "the most ominous development has been a marketing blunder: Swiss watchmakers failed to appreciate the sales potential of electronic digital watches." Nevertheless, the Swiss watch industry now is pushing digital-watch production.

Alcohol Takes Its Toll

◆ Reportedly, some 9 million United States citizens are alcoholics or problem drinkers. Ten percent of the country's workers are said to have drinking problems, "resulting in an estimated \$25-billion-a-year drain on the economy," according to *Parade* magazine. It also reports that yearly in the U.S. alcohol is involved in over 25,000 traffic deaths, 20,000 fatalities in other accidents, 20,000 disease deaths and 15,000 suicides and homicides.

The European Bison

◆ Back in 1919, what was considered the last wild wisent, or European bison, was killed for food. Only a few of these animals then remained in zoos. Today, however, 1,650 roam the Bialowieza Forest, which straddles the Polish-Soviet border. In 1921, this forest became Poland's first national park, and, in 1923, a Polish professor began gathering European bison from many zoos. Only 17 of these animals, related to the American bison, survived World War II. Thereafter, breeding resumed, lead-

ing to the large number existing in this forest today.

Drop in Drug Prescriptions

◆ Drug prescriptions filled in U.S. drugstores have dropped in number for the first time in many years. The journal *Drug Topics* said that a survey reveals that in 1975 7.5 million fewer prescriptions were filled than in 1974. Nevertheless, total customer costs rose 6.6 percent, and the average prescription cost \$4.93, or 33 cents above the figure for the previous year. The decline in number of drug prescriptions has been ascribed to a trend among physicians not to prescribe tranquilizers and antibiotics as liberally as they did in the past. According to *The Wall Street Journal*, *Drug Topics* also links the drop to the recession and to "an increase in the number of prescriptions dispensed by hospital outpa-

tient clinics and government-sponsored Health Maintenance Organization pharmacies."

Poisonous Plants

◆ During 1975, "at least 12,000 Americans were poisoned by plants, some of them fatally," reports *Time* magazine. It published a list of dangerous foliage, prepared by Dr. Guy Hartman of Fontana, California. The whole plant is toxic if eaten by humans in the case of the azalea, calla lily, castor bean, daphne, oleander, privet, ranunculus or buttercup, wisteria and yellow jessamine. In other instances, parts of the plant are dangerous, as follows: black locust (bark, foliage, young sprouts); holly, Jerusalem cherry, lantana (berries); English ivy (berries and leaves); daffodil (bulb); poison oak, rhubarb (leaves); poinsettia (leaves and stem); iris (leaves, roots and fleshy

parts); bird-of-paradise (seed pods). While many adults avoid eating things about which they are uncertain, parents do well to caution their children not to pick and eat plants found while playing in a field or their own backyard. Some of the foregoing plants cause serious illness, while others are deadly. A doctor's attention and hospital care may be vital if plant poisoning occurs.

Sanctified or Sickened?

◆ Sanctification is sought by Hindu pilgrims who bathe in India's Yamuna River. But Indian scientists report that water tests where the Yamuna and Ganges Rivers converge indicate the presence of germs causing such diseases as typhoid and cholera. Sewage from the city of Allahabad is cited as the cause of this dangerous pollution.

