

# **Awake!**

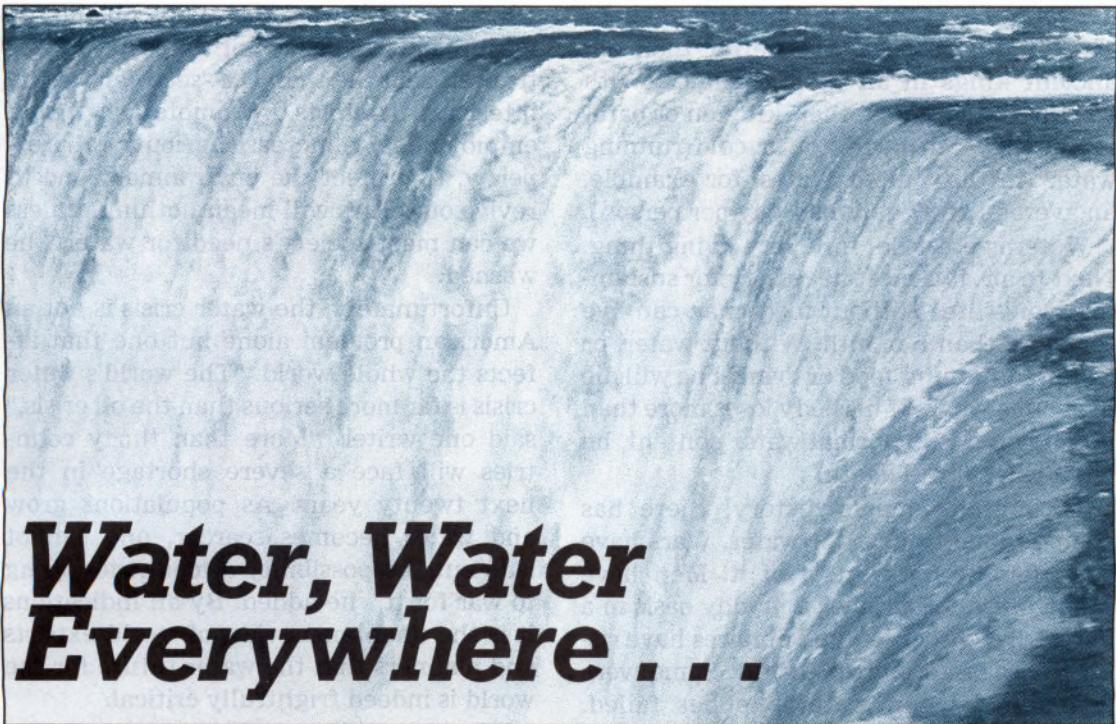
NOVEMBER 22, 1986



**Are we  
running  
out of**

**WATER?**





# Water, Water Everywhere . . .

THE dawn comes. In their homes people begin to stir from another night of restful sleep. Showers and tub water must be run to freshen their bodies. There are sleepy eyes to awaken with a splash of water and beards to shave. There are pots of water to be drawn for the inevitable first brew of tea or coffee so imperative for some. Dirty dishes and soiled clothes will need to be washed in clean water.

As the morning sun rises higher in the sky, the wheels of industry begin to turn. Valves are opened so that water, that life-blood so necessary for heating, cooling, generating electrical power, formulating chemicals, and so many other things, can course through its miles of pipes.

Without water the wheels of industry would grind to a halt as surely as if the electric plug was pulled. For example, the

production of the 2,000 pounds of steel in your car required the recycling of over 60,000 gallons of water, and 4 gallons of water were needed in processing every gallon of fuel in its tank.\* Cafés and restaurants prepare for another busy day, during which the hands of their water meters will spin swiftly. In the more arid regions, miles of pipes and myriads of sprinkler heads discharge millions of cubic feet of precious water to irrigate the farms from which comes so much food for the cities.

Water, water everywhere. There seems to be an inexhaustible supply of it. Because this thinking permeates the minds of most people, it is abused, misused, wasted, and taken for granted, with little thought given to its source. Because of easy access to

\* 1 lb = 0.5 kg.  
1 gal = 3.8 L.

it, even some of the cities' less affluent ones can, in this respect, live better than did ancient kings in all their splendor. With the turn of a knob in their kitchen or bathroom, they can have hot or cold running water (in the United States, for example, an average of 87 gallons a day per person).

Water is essential for every living thing. Next to air, it is most necessary for sustaining man's life. Without food, man can live for more than a month. Without water, or water-containing food or drinks, he will die in about a week. If his body loses more than 20 percent of its normal water content, he will die a painful death.

Throughout man's history, there has been a violent quest for water. Wars have been fought for control of it. Men have killed one another over a muddy oasis in a desert. Towns, cities, and empires have risen where water was plentiful. Some were abandoned when water supplies failed. Men have made idols to water and worshiped them as gods. They have been prayed to by means of great rituals and sacrifices when water was scarce and given the credit when water was found.

### **The Water Crisis—Coming or Here?**

As the human population has exploded upon the earth, the demand for water has reached new heights. Endless columns of newsprint from around the world are being devoted to the need for more water. Some experts refer to "the coming water crisis" and "the next resource shortage." Others, however, add a more ominous note. "Our nation is in a water crisis right now," said one United States senator. "People say it is a crisis waiting to happen. It is a crisis right now," wrote the chairman of the House Water Resources Subcommittee. "America's most precious resource is in peril," wrote *U.S. News & World Report* of March

1985. "The crisis of the 1990s on the domestic side will be lack of water for domestic use," said the then U.S. secretary of the interior. "All efforts to promote growth and employment, to increase agricultural prosperity, to protect the environment and to revive our cities will mean nothing, unless we can meet society's need for water," he warned.

Unfortunately, the water crisis is not an American problem alone but one that affects the whole world. "The world's water crisis is far more serious than the oil crisis," said one writer. "More than thirty countries will face a severe shortage in the next twenty years. As populations grow and water becomes scarcer, one cannot rule out the possibility of countries going to war for it," he added. By all indications it is the unanimous view of world experts and planners that the water future for the world is indeed frightfully critical.

Why the world concern over water? The earth has an enormous amount of it. Over 70 percent of the earth's surface is covered with it. To appreciate this tremendous volume of liquid is to exercise the mind. Imagine, for example, a pit one mile long, one mile wide, and one mile deep—one cubic mile. To fill this cube with water would require over a million million (1,000,000,000,000) gallons. Now multiply this volume by 326 million such cubic miles, and you approximate the amount of water on the earth. It cycles endlessly from oceans, rivers, lakes, and streams into the atmosphere, drawn by the sun's heat, and then falls back in the form of rain or snow.—Ecclesiastes 1:7.

The facts indicate that there is enough water on the earth to more than fill the desire of every living thing, from man's creation and throughout eternity. (Psalm 145:16) Why, then, the water crisis?

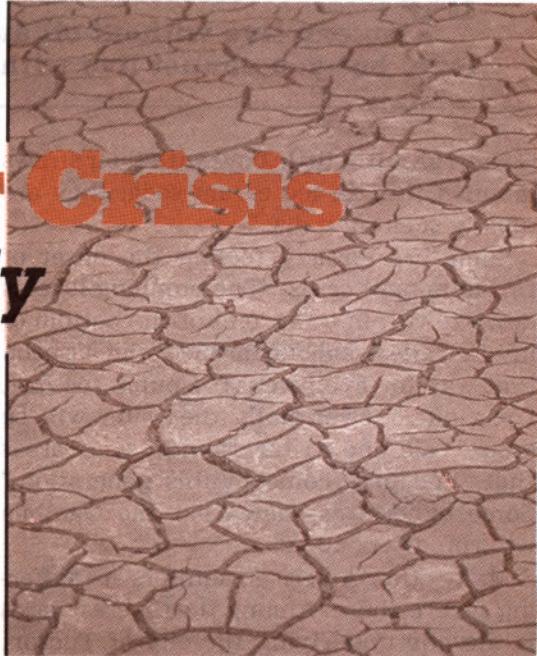
# The Water Crisis —Are We Really Running Dry?

TO BEGIN with, although 70 percent of the earth's surface is covered with water, not all of it is drinkable. For example, the seas make up about 97 percent of this water. This leaves 3 percent classified as fresh.

More than three fourths of this water, however, is locked solid in earth's glaciers and polar ice caps. Another 14 percent is underground water in aquifers too deep to tap. The remaining water, estimated to be a minute 0.027 percent, flows through freshwater rivers, lakes, and streams, and in aquifers that can be tapped. The surface freshwater is recharged with rain and other precipitation, but because of the great depth of some aquifers, they cannot be recharged.

Unlike giant turbines that can create electricity for home and industrial use, no new water can be manufactured. So when the water tap is turned on in the home for that special pot of tea or coffee, or for the invigorating hot tub or shower, and the great valves are opened in industrial establishments or to recharge swimming pools, the water must come from nearby rivers, lakes, or wells tapping the aquifers.

Although the annual rainfall for the earth is plentiful, it does not fall on all parts



of the earth in equal proportions. In some parts of the earth, rainfall may be more than abundant, whereas in others it may not rain for years. In the places where rain is scarce, great irrigation systems are necessary for farming, and these waters are pumped from aquifers where recharge is either nonexistent or insufficient. This has resulted in wells running dry.

## Aquifers Running Dry

Of these aquifers, the Ogallala is the largest in the world. It runs under six states of the midwestern United States, and home, industry, and irrigation are vitally dependent on it, but it is approaching a crisis that will vitally affect tens of millions of people. There are now 200,000 wells pumping water from the Ogallala, and its water table has dropped 10 to 15 feet over an area of 60,000 square miles.\* Said one writer:

\* 1 ft = 0.3 m.  
1 sq mi = 2.6 sq km.

## **"Y**ou can live without oil and you can even live without love, but you cannot live without water"

"Like a group of little boys with their straws jammed into an ice cream soda, they are rapidly sucking it dry."

Some are already feeling the onset of this imminent crisis. "The pumping level is down to within a few feet of the bottom of my 11 wells," said one farmer, "and it's been that way for five years. If I pump too fast, I run out." "Eventually the water will be gone," said one writer, "and in some areas that time may come in this generation." Some experts estimate that the Ogallala will run dry in 40 years.

Many other American aquifers are suffering severe abuse. Among the severest cases is the one underlying the city of Tucson, Arizona—the largest United States city completely dependent on its underground system. This dependency includes both home and industry, farms, and operating copper mines. The result has been a staggering 150 foot drop in its water table since the 1960's. Only about 35 percent of the water pumped out of the aquifer yearly is recharged.

In some areas these underground reservoirs have fallen over 160 feet. In El Paso, Texas, and Ciudad Juárez, Mexico, for example, underground water levels have dropped drastically from overpumping, and in the Dallas-Fort Worth metropolitan area, water tables have fallen more than 390 feet over the last 25 years. This continual water debit can only lead to underground bankruptcy.

Overpumping of the nation's aquifers is also resulting in serious side effects other than the dangerous lowering of the water tables toward depletion. The entire city of Houston, Texas, for example, is sinking

into its base of sand and clay, reported *The New York Times* of September 26, 1982. "The cause is water. The vast aquifers beneath the city have been overpumped to feed the breakneck development of the last decade," the paper reported. "It could sink 14 feet more by the year 2020 if nothing but ground water was used to satisfy future demand."

That same year *The New York Times* reported on a similar situation in the state of Arizona. Great fissures in the earth, as deep as 400 feet in some areas, and seven miles long, were reported.\* The fissures were a direct result of large-scale pumping of water from aquifers to supply both farm and urban users. When the water table drops drastically, the surface above it slumps, and in some places, giant cracks form that can run 400 feet deep, all the way to the underlying bedrock. Also, in the state of Florida the overpumping of aquifers has resulted in much publicity. The frantic pumping has undermined the ground, creating sinkholes that have swallowed homes and automobiles.

Warnings of the United States' underground water crisis come almost continually from the news media. It is a national concern. "The steady depletion of the aquifer is recognized as a threat to the country, to our economic growth and to our quality of life," said John P. Hammerschmidt, U.S. House of Representatives. "The land of plenty has created an insatiable demand for water where there isn't any," said a U.S. senator. "Once our ground-water aquifers are gone," said Congressman Robert Roe,

\* 1 mi = 1.6 km.

"that's the end of it. It could take a thousand years to regenerate them."

### **"In 50 Years' Time, No Phoenix"**

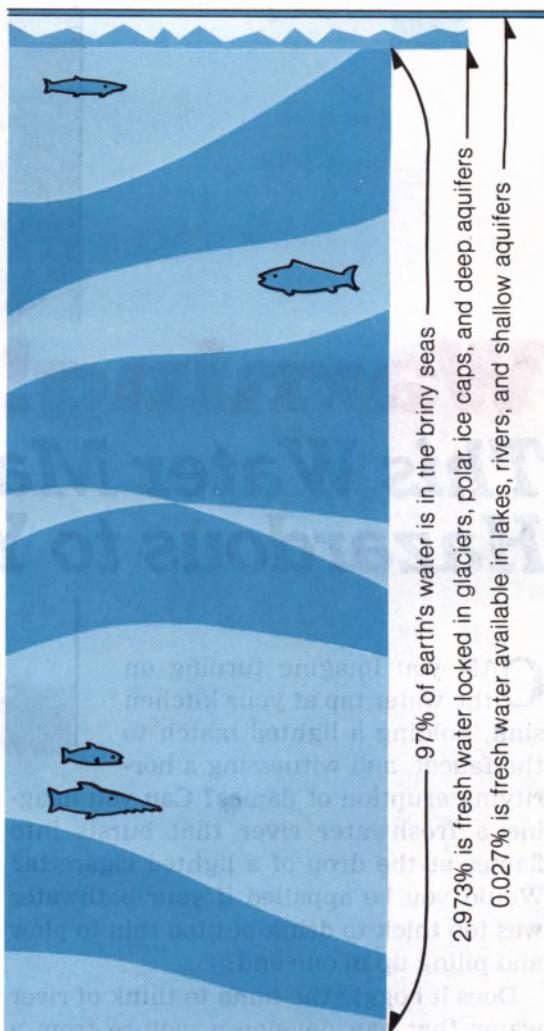
Senator Daniel Moynihan stated: "On the floor of the Senate, I once said that you can live without oil and you can even live without love, but you cannot live without water . . . Run down the aquifers under the Southwest, and in 50 years' time, no Phoenix [Arizona]. Sorry, friend, the water is gone. That's a real—and irreversible—crisis." The magazine *U.S. News & World Report* of March 18, 1985, adds a final note: "The notion of running out of water may seem farfetched to most Americans. But an increasing number of hydrologists, engineers and environmentalists insist that the time of smug confidence in the 'Land of Plenty's' water is ending."

Around the world, other nations cry out bitterly over the rapid depletion of their underground water systems. In the decade of the '70's, areas in southern India found that their water levels dropped nearly a hundred feet because of overpumping for irrigation. In China's northern provinces, ten major cities whose basic water supply comes from aquifers face severe subsidence problems through overpumping. Some of these cities have been sinking 8 to 12 inches annually since 1950 because of the depletion and compression of their aquifers.\* Mexico City is also threatened with land damage because of subsidence.

In areas where aquifers run close to the sea, the problem is compounded. As the aquifers are pumped to low levels, salt water from the sea forces its way in, and the fresh water becomes contaminated by this intrusion. Israel, Syria, and the Arabian Gulf states are having to come to grips with this war of waters beneath the land.

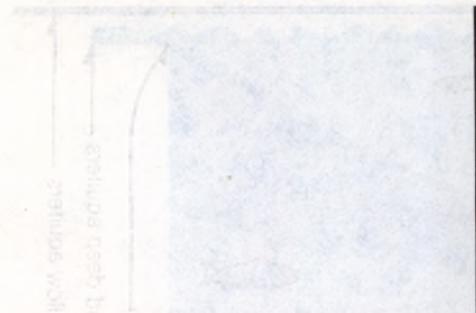
Although the Soviet Union's plight and

\* 1 in. = 2.5 cm.



its fight for water are not as well documented as those of other countries, it is faced with similar problems. The Third World, particularly, where population growth is exploding, has also come to know of the life-and-death struggle for water. The diminishing water supply is rapidly becoming an insidious crisis around the world.

Even if your water supply seems plentiful, you, too, may be affected by this water crisis, as the next article will show.

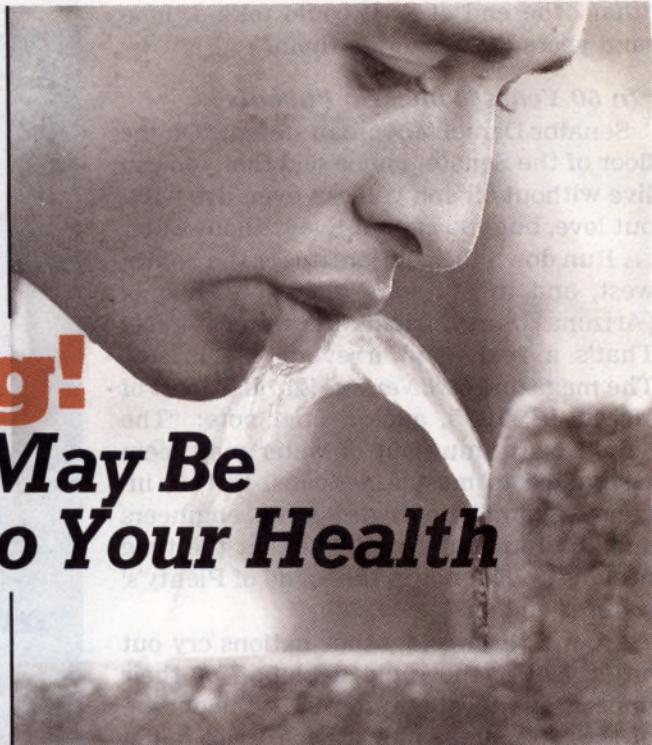


# Warning! This Water May Be Hazardous to Your Health

CAN you imagine turning on the water tap at your kitchen sink, holding a lighted match to the faucet, and witnessing a horrifying eruption of flames? Can you imagine a freshwater river that bursts into flames at the drop of a lighted cigarette? Would you be appalled if your bathwater was too thick to drink but too thin to plow and piling up in one end?

Does it boggle the mind to think of river water that can develop a picture from a negative before your eyes? What would be your reaction if your tap water came out with a head on it, looking like bock beer? Do you have to open the window at your sink so as not to stink up the house when water is drawn from the faucet? Does your marriage mate leave the morning pot of coffee untouched because of its unusual strength, only to discover later that no coffee had been added yet?

Or is your water crystal clear, pure in taste, but your family repeatedly suffers



from headaches, dizziness, dysentery, or skin rashes after drinking it? Or would the suffering of tremors, blindness, and impairment of the central nervous system best describe the symptoms?

Did you know that not long ago one third of humanity was in a perpetual state of illness because of impure water and that ten million people were dying each year, not for the lack of it, but because of it? Can all of this be the figment of a wild imagination—the stuff of science-fiction movies? Unfortunately, the scenarios are true.

It has become obvious that man today has the awesome genius to poison completely every living thing on the face of the earth and in the waters below. Most of this has come about through his efforts to make life easier—mitigating pain and disease, bringing the world closer to his living room

through communication, pursuing his quest into outer space, and making destructive implements of war.

Most of this is caused by man's creation of new but deadly chemical compounds. Six years ago, over 60,000 such chemical concoctions were on the market—35,000 of which were classified as either deadly or extremely hazardous to our health, with thousands more being formulated each year. From these chemical cocktails have come equally dangerous and highly toxic wastes that are disposed of by dumping them into the earth, rivers, and streams, with little thought of the consequences it would have on people or environment.

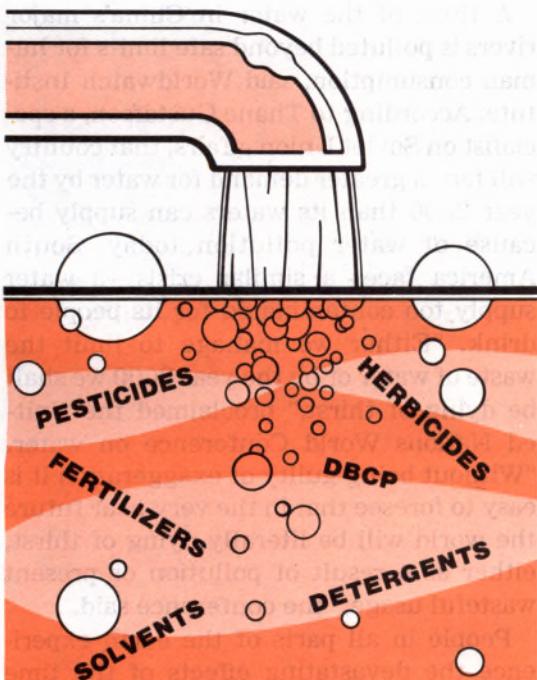
### **A Boon to Farmers, a Bomb to Earth's Waters**

Pesticides, herbicides, and fertilizers have been a boon to the world's farmers, but they have been a bomb to earth's wa-

ters. For years farmers in California's San Joaquin Valley sprayed their grapes, fruit, and tomatoes with the pesticide DBCP, only to discover in recent years that it can cause cancer and sterility in humans. Although the spraying has stopped, the poison hasn't stopped percolating through the layers of the earth and into the underground water system. "Thirty-five percent of the wells in the valley have DBCP," said a spokesman for the health department. In one county in California, 250,000 people run the risk of DBCP contamination, reported *Newsweek* magazine. Other pesticides affect the nervous system. Still others are suspected of causing various other illnesses. Some herbicides have been discovered to have serious effects on the brain, rendering the victim immobile. In many agricultural areas, fertilizers have raised nitrate concentrations above health standards set out in some countries. These chemicals, too, have infiltrated aquifers.

Detergents, solvents, dry-cleaning fluids, septic-tank cleaners, to mention a few, have been highly developed through chemistry's progression. The result has been marvelous benefits to mankind. However, as these products percolate through the earth, the result has been a contamination of earth's pure waters for generations to come. "We are poisoning ourselves and our posterity," said one environmentalist.

Many of the millions of underground gasoline storage tanks at the service stations dotting the highways and city streets leak, as reports show, and their highly explosive contents seep into the ground and percolate through the well-water systems. They can cause houses and barns to burst into flames when the fumes reach a lighted match. Flames from a water faucet are all too common as a result of this underground witches' brew of death-dealing chemicals oozing into the water system.



## **'Water, water everywhere, and not a drop to drink,' looms up today with new and ominous meaning for mankind**

It was thought that the earth itself would purify these chemicals as they trickled through the layers of the earth, rendering them harmless. In the past decade, however, it has been discovered that many of these dangerous chemicals have not been filtered out but go right through to the aquifers, contaminating them for generations to come. "Ground-water contamination is the result of sins committed a long time ago," said James Groff of the American Water Works Association. "Nobody had the foresight to predict it."

The sins, however, continue to be committed to this date. The Environmental Protection Agency estimates that in the United States alone 1.5 trillion gallons of hazardous waste leak into the underground water system each year.\* Much of it is deliberately dumped by unscrupulous and greedy men without regard to the terrible, terrible damage to man's water and health. "Just 1 gallon of solvent will contaminate 20 million gallons of ground water to exceed safe levels set by most states," said one scientist. When one thinks in terms of a trillion gallons of waste, then the expression, 'water, water everywhere, and not a drop to drink,' looms up as being a potentially frightful reality.

### **A "Time Bomb, Slowly Ticking Away"**

"Ground water and its contaminants," said the chairman of the House Subcommittee on Environment, Energy and Natural Resources, "represent a potential time bomb, slowly ticking away. There's a grow-

ing belief that this problem will be the next great crisis of the 1980s." *The New York Times* reported: "There is wide agreement, however, that the contamination of ground water is by far the most serious and difficult problem affecting the quality of drinking water and now constitutes a subterranean time bomb." "There's no doubt we have a time bomb on our hands," warned a University of Arizona scientist. "The question is how big the bang will be."

A person does not have to put his ear to the ground to know "how big the bang will be." Already the world shudders in fear of the coming explosion. For example, it has been estimated that by the year 2000 a fourth of the world's water supply could be unsafe for drinking.

A third of the water in China's major rivers is polluted beyond safe limits for human consumption, said Worldwatch Institute. According to Thane Gustafson, a specialist on Soviet Union affairs, that country will face a greater demand for water by the year 2000 than its waters can supply because of water pollution today. South America faces a similar crisis—a water supply too contaminated for its people to drink. "Either we manage to limit the waste of water or by the year 2000 we shall be dying of thirst," proclaimed the United Nations World Conference on water. "Without being guilty of exaggeration it is easy to foresee that in the very near future the world will be literally dying of thirst, either as a result of pollution or present wasteful usage," the conference said.

People in all parts of the earth experience the devastating effects of the time

\* 1 gal = 3.8 L.

bomb that appears to have exploded on the world scene already. When one considers, for example, that 70 percent of India's drinking water is polluted and is the cause of much of the country's illness, it becomes no exaggeration to say that its waters and all life dependent on them cry out for a cure. And what can be said of the Third World countries and the dying people looking for clean water? Truly, the world faces a dilemma of unprecedented proportions.

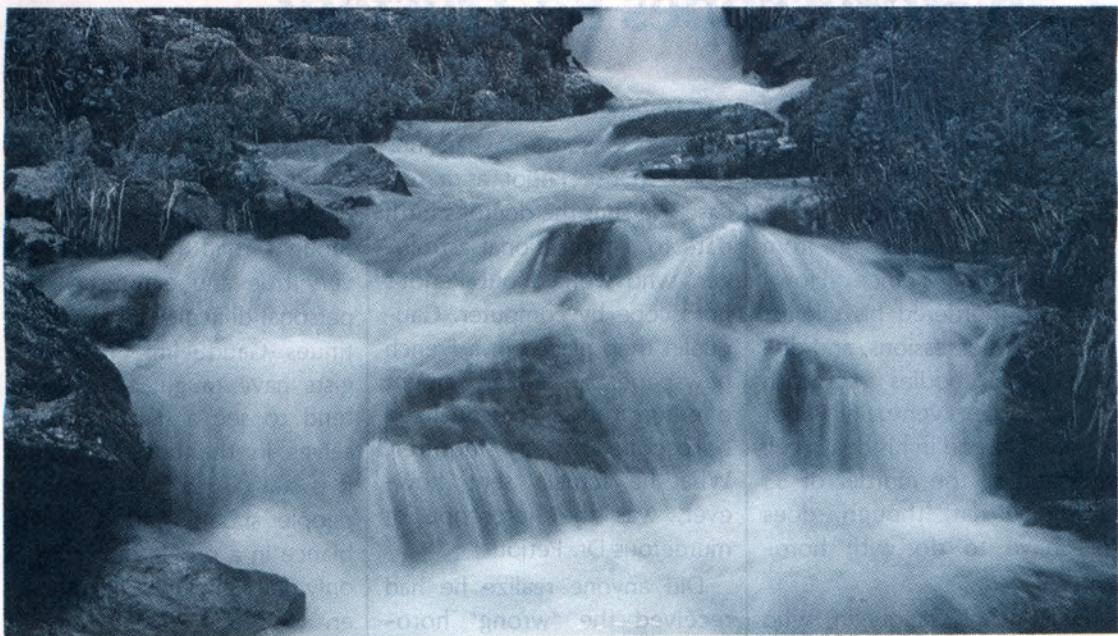
Water-borne diseases kill 30,000 people every day, said Swiss water-treatment expert Dr. Maarten Schalekamp. Only a third of mankind possesses what he called "irreproachable" drinking-water facilities, while another third of earth's inhabitants is drinking contaminated water. The remaining third has very little water of any kind.

And so it goes. Poisoned waters percolating through the earth, rushing through its rivers, meandering down its streams, cascading over its falls, while a great portion

of mankind inevitably drinks to its death. Truly, a time bomb of man's own making!

Jehovah God, the Creator of earth, man, and all life-giving waters, has set ticking his own time bomb by which he will "bring to ruin those ruining the earth." (Revelation 11:18) It is set to go off at his appointed time, and those who have ruined the earth, the air, and the water will not be able to defuse it or to escape its destructive forces. The year 2000 continues to be pointed to by man as being a critical time. Whether the guilty live to see that feared year remains to be seen. Only Jehovah knows. Following the destruction of those whom God now holds accountable, the earth will be restored to a paradise, and rivers of waters of life, clean and pure, will be abundant for every living thing.

Then of fresh water it may be said, 'Water, water everywhere—and every drop fit to drink.'



# "The Embryo of Me"

THE more man learns about how the fetus develops, the more he is confronted by evidence showing that, from early on, it is a gradually unfolding life with feeling, hearing, sight, movement, and other functions. He continues to be startled by discoveries showing that it is more than a mere collection of cells and tissue. In *Chatelaine*, a Canadian women's magazine, Anne Beirne sets out what is now known. *Moving:* Though the mother may not feel it, the fetus starts to move its muscles as early as eight weeks—and its heart is

already beating! "By 28 weeks, a normally developing fetus moves at least ten times every 12 hours." *Feeling:* At 16 weeks, it reacts to pain, even kicking if stuck by the needle used in amniocentesis. *Hearing:* It can hear its mother's heartbeat at 24 weeks and responds to loud sounds, music, and voices. "It can even bounce in rhythm to its mother's voice." *Seeing:* "By 16 weeks, its eyes have developed to the point where they can move around; by 24 weeks, . . . the fetus is able to detect light through the uterine wall."

Jehovah also, from the conception of the new life, sees all of this—the marvelous, gradual development of an individual. Those who truly respect life and its Source will not ignore this fact, acting as if an abortion were only the removal of nothing more than a cluster of cells. To Jehovah, the psalmist said: "Your eyes saw even the embryo of me, and in your book all its parts were down in writing, as regards the days when they were formed and there was not yet one among them."—Psalm 139:16.

## Can Horoscopes Be Trusted?

AMONG the horrible crimes of World War II were those committed by Dr. Marcel Petiot. He made a living by offering people a safe passage from Nazi-occupied France. However, he murdered his clients, stole their possessions, and dissolved their bodies in a bath of quicklime. Eventually Petiot was caught and in his death cell admitted to the murder of 63 people. What, though, does this have to do with horoscopes?

Dr. Michel Gauquelin, who

has investigated claims of astrologers for some 30 years, decided to use Petiot as a test case. He sent the doctor's birth date to a professional astrologer, who worked out Petiot's horoscope by computer. Gauquelin then placed in a French newspaper an advertisement offering a free, personalized horoscope to any inquirer. What he actually sent, however, was the horoscope of murderous Dr. Petiot!

Did anyone realize he had received the "wrong" horo-

scope? On the contrary! Writes Gauquelin: "I received a dozen enthusiastic letters of acknowledgement. Ninety per cent thought that the portrait was very true and expressed their personal difficulties well." Continues Gauquelin: "Psychologists have taught that we all tend to see a mirror of ourselves in the horoscope; but it is still disquieting that these people should find a resemblance in a profile drawn to fit only one individual—a murderer."

## Young People Ask...

# Why Should I Accept My Parents' Religion?

"IT WAS punched in me when I was younger, and I didn't like the attitude of the people." "I outgrew it." Those were the answers two ex-Catholics gave to Gallup pollsters who asked them why they had quit their church. Their view of things reflects the attitude of many young people today who do not feel morally obliged to adopt the religion of their parents.

Yet this does not mean that young people are necessarily irreligious. In Germany, youngsters are reportedly returning to "conservative values," including religion. An in-depth study of religious belief in the United States revealed that "young people in America are vitally concerned about their religious faith. Some of this concern translates into sharp, persistent criticism of the institutional church."—*The Search for America's Faith*, by G. Gallup, Jr., and D. Poling.

### Valid Reasons for Not Doing So

Yet, in all fairness, it must be stated that some people have valid reasons for not following their parents' religion. In the above-quoted Gallup poll on why Catholics have drifted away from their church, "one man complained about 'being condemned to hell for minor infractions of the rules.' Another objected to too much ceremony, others too little Bible."—*The Record*, October 27, 1985.

Authors Gallup and Poling state: "Teen-

agers reveal an abiding interest in spiritual questions. . . . At the same time, this group indicates distance from organized religion. . . . Clearly the deep spiritual hunger of young people is not being met by the established church." By "established church," they meant any of what they call the "main-line churches"—Catholic, Protestant, Orthodox, or Jewish.

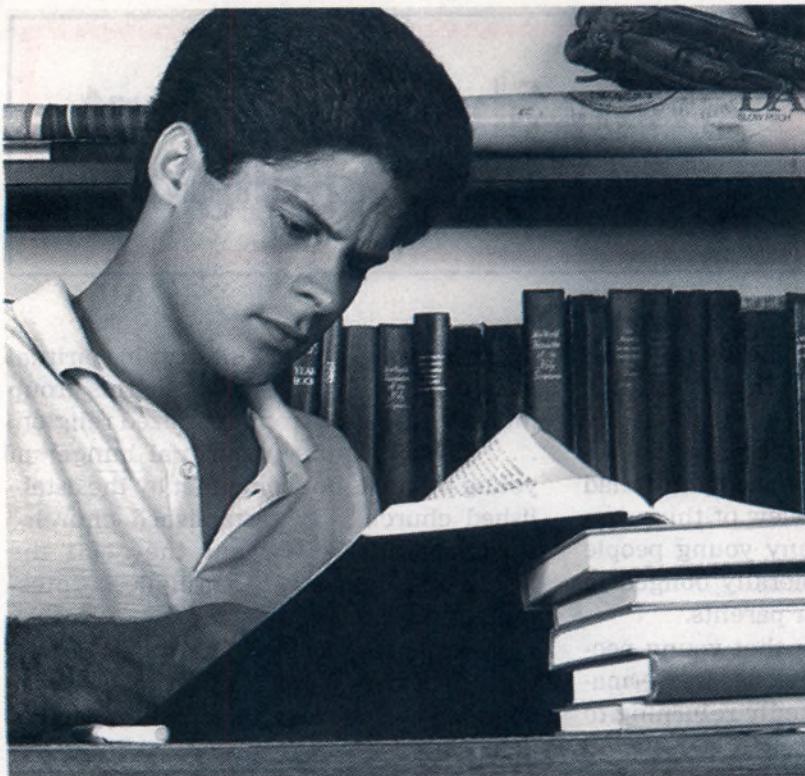
They quote one young Methodist as saying: "Churches should try to reach those who don't come into their buildings, and help those who don't believe." A high percentage of a group of youngsters who were surveyed "indicated that they would consider donating some of their time to church

**"Teenagers reveal an abiding interest in spiritual questions"**

activities on a regular basis if they were asked." Apparently they are not being asked to do so.

### How to Decide

If many young people are interested in spiritual questions and yet their spiritual hunger is not being met by the "established church" of their parents, where are they to turn? On what basis can a young person decide whether to choose his parents' religion or not?



**Young people should check to see if their parents have taught them Bible truth**

Interestingly, one of the reasons given by some Catholics for not continuing in their parents' religion was "too little Bible." The Bible has been defined as "the sacred book of Christianity." Yes, the Bible is the standard by which to evaluate any religion that claims to be Christian. In fact, it has been said that no philosophy can compare with the "eternal truths" found in the Bible. So, whatever your parents' religion may be, you would do well to compare its teachings with the Bible.

"Being condemned to hell" was one objection mentioned earlier. Since after-death punishment of some sort is taught by most Western and Eastern religions, the chances are that your parents' religion teaches that the wicked go to hell. True, many clergymen today try to cool hell

down by claiming that the damned are not physically tormented, only morally tormented by being 'deprived of the vision of God.' But as a youngster, are you not just as shocked by the idea of a person's being forever tormented morally as by the thought of everlasting physical suffering?

The Bible teaches that the human soul can die, that hope for life after death rests on God's power to resurrect the dead, and that the punishment for willful wickedness is death, not eternal torment. (See Ezekiel 18:4; Acts 24:15; Romans 6:23).\* Does this not satisfy your sense of justice more than the God-dishonoring doctrine of hellfire? These are a few of the "eternal truths" of the Bible taught by Jehovah's Witnesses.

#### **Witness Youths Must Also Decide**

What, now, about adolescents who have been raised by parents who are Jehovah's Witnesses? Are we saying that *they* are not faced with the question, "Why should I ac-

\* For a full explanation, see the book *Is This Life All There Is?* published by the Watchtower Bible and Tract Society of New York, Inc.

cept my parents' religion?" By no means. There comes a time in their life when they must decide for themselves whether they personally are going to dedicate their lives to Jehovah God or not.

Like other youths, they ask themselves, "How can I be sure that my parents' religion is the true religion?" And like the others, they must convince themselves that its teachings are in line with the Bible.

Ruth, who was brought up in Germany, admits that as a youth she knew what was expected of her and gave the "right" answers. For example, when asked, "What do you put first in your life?" she replied, "God's Kingdom." She adds, however: "I knew this to be the proper answer, but afterward I asked myself, 'Is it true?'" She was honest enough to admit that at that point in her life her schooling was more important to her than God's Kingdom.

Later Ruth asked herself: "With so many different ideologies, how do I know for sure that what I received from infancy is the truth?" The following three scriptures helped her: Matthew 7:15-20 ("By their fruits you will recognize them"), John 13:35 ("By this all will know that you are my disciples, if you have love among yourselves"), and Matthew 24:14 ("This good news of the kingdom will be preached in all the inhabited earth for a witness"). She saw that other religions had not produced good fruitage. She observed among Jehovah's Witnesses "an international, united brotherhood active in preaching the good news of God's Kingdom unselfishly." She chose to remain in the religion in which her mother had raised her.

Dorcas was likewise raised by Witness parents, in France. She now recognizes that too little study of Bible publications and too much study of philosophy at school

allowed doubts to sprout in her young mind. Still, she tried to imagine what her life would be without the Bible truth her parents had taught her. She found only emptiness. So she got down to a serious study of Bible prophecies, with appropriate study aids. She states: "After *finally* convincing myself that I had the truth, I got baptized." Dorcas decided to continue in her parents' religion.

Unlike the young Methodist who complained that the churches are not trying "to reach those who don't come into their buildings, and help those who don't believe," Ruth and Dorcas are happy to share with other Jehovah's Witnesses in doing just that. All Witnesses, young and old, are invited to devote "some of their time" to preaching activities. More and more young Witnesses are becoming full-time ministers of the good news that God's Kingdom will shortly restore Paradise to our earth.

—Matthew 6:10.

### **The Choice Is Yours**

Apparently more and more youngsters are realizing that life without a spiritual ideal to pursue is no life at all. Yet, as we have seen, "the deep spiritual hunger" of many young people "is not being met by the established church."

If you are faced with the question, "Why should I accept my parents' religion?" why not compare their beliefs with the "eternal truths" found in the Bible? Write to the publishers of this magazine, or contact any of Jehovah's Witnesses you know—perhaps at your school or place of work—and ask for Bible study aids that will enable you to make this check. Then draw your own conclusions as to whether you should follow your parents' religion or not. The choice is yours!

# *When the Killer Cyclone Hit!*

By "Awake!" correspondent in the Solomon Islands

**T**HE killer moved slowly at first. Inch-  
ing its way southwestward, it made a sudden beeline for Malaita—one of the Solomon islands. There it began cutting its trail of death.

Winds clocked at speeds up to 115 mph (185 km/hr) began pummeling everything in their path. Trees toppled. Houses were flattened. Roofs were sent whirling through the air. Rain furiously pounded the ground. Whipped up by the raging winds, the sea crushed wharves and bridges. Peaceful rivers became swollen torrents, drowning roads and farm plantations.

The Solomon Islands had been attacked by a killer named Namu—a tropical cyclone. The assault began on the weekend

of May 17, 18, 1986—the date of a two-day circuit assembly of Jehovah's Witnesses in Honiara, Guadalcanal Island. As it turned out, the timing of this assembly proved lifesaving for some.

## **'Don't Go This Way!'**

"Saturday started off like any rainy day in the Solomon Islands," recalled Roland Cent, a minister of Jehovah's Witnesses. "We were looking forward to the circuit assembly and were not concerned about the weather." (Attendance at the assembly was 491.) But by the end of the assembly, it became apparent that this was no ordinary rainstorm.

"I learned that a cyclone had passed by us and was stationary on the other side of Guadalcanal," says Cent. Witnesses from Tetere, located about 19 miles (30 km) east of Honiara, were thus stranded, the roads already becoming flooded. Most therefore stayed overnight in Honiara, in a safe area called Foxwood about 9 miles (15 km) from the assembly site.

Roland Cent lives in the Foxwood area. So after driving his family home, he returned to the assembly location to help another family return to their home. But he soon found that traveling had be-



Half of Ngalibiu bridge washed away during cyclone Namu

come impossible. "The rivers were all riding high," he recalled. "At the Ngalibiu River, logs were starting to get jammed against the bridge. A driver coming from the other side urged us not to go that way! So I took the family back to my home on high ground."

### **Panic in C.D.C.**

C.D.C. is a housing settlement on the Ngalibiu River. Most of the inhabitants of C.D.C. went to bed Sunday night not unduly concerned about the heavy rains. However, two men, whose homes sat right at the edge of the riverbank did not sleep. With great anxiety they watched the river rise ominously.

But by 3:00 a.m. the water had receded. The two men went to sleep. One was then awakened by a phone call at 5:00 a.m. To his horror, he could see that his garden was now covered with water! He and his wife immediately jumped into their car and drove to a place of safety near Foxwood.

But what about the other man whose home was close to the riverbank? His name is James Sulimae and he is one of Jehovah's Witnesses. He, too, was awakened and ran to warn his neighbors. Packing his truck with frightened families, he headed for safety near Foxwood. Twice he returned to evacuate others.

### **The Morning After**

"Monday dawned with much rain and high winds," Roland Cent recalled. "The call went out to help move people from C.D.C., and I was able to manage two rescue runs there myself. People liter-

ally threw themselves into the back of the truck! Men were crying, women and children could be heard screaming." It was not hard to see why. The bridge over the Ngalibiu River had now become a massive dam and floodwaters threatened to drown everyone!

Not all were evacuated, though. Sonia Dixon, another Witness living in C.D.C., said: "We were prepared for what we thought were going to be some minor inconveniences, such as a flooded garden. However, when families started to arrive at our two-story house for shelter, we realized things were serious. By 10:00 a.m. we had a river running through our garden!"

"I got busy caring for the needs of about 22 people, including 3 infants. Some actually swam up to our veranda. They were helped inside, dried off, given hot coffee and food. While helping me, my husband Peter was anxiously watching the water level, using the handle of our clothes pole as a measuring stick. Swept along by the rushing river, huge logs began pounding the house.



**Cyclone Namu washed this ship ashore at Honiara**

"Peter's face was white, and I had a knot of fear in my stomach. Peter took our eight-year-old daughter Elizabeth aside and prayed with her. Another Witness from our congregation and I also prayed. The water kept getting deeper. Suddenly a way of rescue opened! The logs began to back up against a large hibiscus hedge surrounding our garden. The dammed up water was now diverted and began flowing past our front veranda, about 15 yards [14 m] away. This saved our lives."

### **Witnesses Help Others**

His rescue services no longer needed in C.D.C., Cent returned home. There, three other families—refugees from the storm—had settled in with his family. Other Witness families similarly extended hospitality to their neighbors. One family took up to 48 refugees into their home, looking after them and feeding them.

Some Witnesses risked their lives for their neighbors. Three Witnesses who were helping some people escape the river were themselves suddenly swept into the torrent. However, they were caught in a whirlpool that carried them back to land!

"Now the cyclone swung around," says Cent, "and hit us with its full fury. The roof of a house 200 yards [180 m] from us was lost to the wind, taking power lines with it. That was the last power we had for a week. The wind and rain raged most of Monday night. But on Tuesday the rain had stopped."

Sonia recalls that by the third day the water had receded a bit. "Who should appear but Elson Site, a full-time minister and Christian elder, along with three young men from our congregation! They brought us a big bunch of bananas and a bag of potatoes. When they realized we were short of water, they disappeared and

came back three hours later with bottles and plastic containers full of drinking water." By Friday, Sonia and her family were finally able to leave their house.

### **The Aftermath of the Storm**

The killer Namu had finished its work. The inhabitants of the islands could begin digging themselves out of the ruins, tallying their losses and counting the dead. Over one hundred were dead. Some 90,000 were left homeless. Farming industries vital to the economy had been crippled.

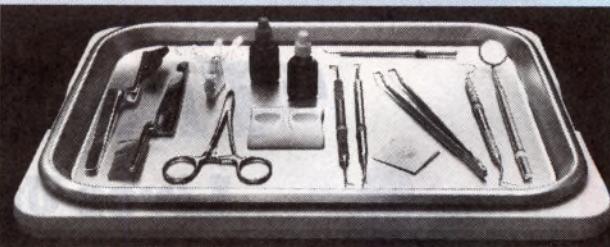
Jehovah's Witnesses were among those who lost homes, food, and gardens. Ten of their Kingdom Halls, where they meet for worship, sustained damage. But no Witnesses were killed. Witnesses in nearby Papua New Guinea and Australia soon sent tons of food supplies. The assembly had proved providential for Witnesses from Teteri. They had ridden out the storm in the relative safety of Foxwood.

It was thus a moving moment for Sonia and her family to go to their damaged Kingdom Hall two days later for worship. "I felt choked with emotion," Sonia recalls, "as we sang a song, the last sentence of which reads: 'If the weak we do assist, God will us sustain.'"

## **In Our Next Issue**

- What Future for Planet Earth?
- Credit Cards  
—A "Plastic Trap"?
- Is Christmas God's Gift to You?

# Dramatic Developments in Dentistry



**G**ETTING the cavities in your teeth fixed without a lot of drilling probably sounds a lot more like music to your ears than the whine of the dentist's drill does. And if other dental procedures, such as the fitting and wearing of braces, capping of teeth, or tooth replacement, are also not your idea of pleasant experiences, then recent dramatic developments in the field of dentistry may indeed sound like beautiful music to you.

□ According to an Associated Press report from Boston, U.S.A., there is now available to dentists a liquid (Caridex) that can easily remove all decayed matter from a tooth. "The solution works almost immediately on decay, which is decalcified material, but will not act on calcified, healthy teeth," the article explains.

Use of the liquid, which now has government approval in the United States, can reduce drilling by as much as 80 percent. This also means a reduction in the amount of pain and, in turn, a diminishing of the fear and stress that usually accompany drilling and even the anticipation of it.

□ Another report, in *The Sunday Star* of Toronto, Canada, tells of a new "natural" cement for fillings that its developers in Maryland, U.S.A., say is "bio compatible with living tissues in the body." They claim that hydroxyapatite reverses decay and "becomes part of the tooth." Researchers at the American Dental Health Foundation hope the substance will be approved for public use in about five years.

□ Other developments in dentistry will

be of interest to those who may have different dental problems, such as unsightly gaps between teeth or chipped, broken, discolored, and twisted teeth. In one office visit—and in the time it takes to drill and fill a single tooth—the gaps can be filled in with a cosmetic bonding now in use in the United States and Canada. In most cases, braces are no longer needed. Bonding can also take the place of capping discolored or broken teeth. Thus the costly and time-consuming trauma of present treatments can be replaced by a most welcome and immediately improved appearance, says *The Toronto Star* of Canada.

□ Finally, offering hope to those who lose some or all of their teeth because of accident or gum disease, or who may no longer be able to wear dentures because of shrinkage of the jawbone, is a report in the magazine *Leaders* on "a process known as osseointegration, the attachment of living bone to the inert metal titanium." The surgically implanted titanium "roots" and the bone integrate, in a three- to six-month period, to restore the "toothless jaw to its natural state."

Then follows a series of appointments for "impressions, bite registration, tooth selection and bridge fittings. These completed, the patient now receives his permanent, bone-anchored, fixed bridge," the article says. Costs are about the same as for standard bridgework. Some 300 Americans had this treatment in 1984, about 700 in 1985. The procedure is described as "safe and permanent."

# **"The Snatcher"**

## **Lives Up to Its Name**

By "Awake!" correspondent in Suriname

**W**HAT legs!" I exclaimed when Heinz Heyde, naturalist and writer, handed me a pair of yellow legs as thick as a child's wrist.

"In real life they are bigger," my smiling host said. "This pair dried out and shrank a bit. The biggest I've ever seen, though, had three-inch-long [8 cm] claws," he added, pointing to the menacing, black nails that jutted out of a foot as big as my hand.

These impressive legs and claws, I learned, are unequaled among birds of prey. When zoologists first examined the bird that proudly displays them, they were reminded of the winged monster of Greek mythology named *harpyja*. Said legend, *harpyja* would snatch humans with its



©Zoological Society of San Diego

enormous vulturelike claws. So this big-clawed eagle was appropriately named *harpy*, which means, "the snatcher."

"In Suriname," explained Mr. Heyde, "some local inhabitants call it *pia*" (pronounced *peea*). As the harpy lives in the thick, tropical rain forests of the Americas, it is rarely seen, even by the most stalwart bird-watchers. However, at times it does touch down on a tree close to the riverside and gives away its presence with a loud "peeeeeaa, peeeeeaa." Hence, its local name.

Call it what you wish, it is the harpy's reputation as a snatcher that prevails—and frightens some people. To what extent, though, has it earned this notorious name?

### **Harpy in Action**

Because the harpy always keeps a majestic distance between itself and an observer, it does not easily reveal its fascinating secrets.

The harpy is a solemn study in black, gray, and white. Picture it perched like a carved statue in the top of the highest tree of a forest. Standing three feet (0.9 m) tall, the adult female (one third larger than the male) is the world's strongest—and largest—eagle. In size and brute strength, it is the rain forest's unchallenged *akaganman*, or "chieftain of the birds of prey," as local residents respectfully call it.

True, the harpy's wingspread is shorter than that of soaring birds of prey like the condor. But the harpy's territory has little room for soaring; swift maneuvering and high speed are needed in the dense forest. And the harpy is well designed for speed. With strong, deep wingbeats and short glides from treetop to treetop, it swiftly brushes through the forest's canopy, listening and watching for signs of prey.

There under a tree branch hangs a sloth! Quickly building up speed to a dazzling 40-50 miles per hour (64-80 km/hr), the harpy dives on its victim. When only a few feet away from the prey, it turns sideways, thrusting its claws fully forward. It grabs the sloth, snatches it from the tree, and carries it off victoriously—"snatcher" indeed!

The sudden air raid, though, throws the animal kingdom into turmoil. Parrots, tree porcupines, opossums, agoutis, and coatis all vanish—and with good reason. They are all on the harpy's menu. But most panic stricken of all are the monkeys. "As soon as monkeys spot the eagle," explains Mr. Heyde, "they beat the alarm. They scream at the top of their voices, knowing it is a matter of life and death. I have seen them simply drop themselves from tree-tops, like ripe mangoes falling on the forest floor. Even the black spider monkeys are scared to death!"

### **Snatching What?**

Mr. Heyde's casual remark raises a frightening specter: Could the harpy really snatch something as large as a big spider monkey? I asked Gerard Brunings, a bush pilot who owned a harpy as a pet some years ago.

"Sure they can," answered Mr. Brunings. "Once my pet harpy attacked a lamb. When it got bigger, it went after some neighborhood dogs! One day it seized a dog at least two feet (0.6 m) tall. It was so heavy, though, that the bird just could not manage to lift off. So with wings flapping, it dragged the dog over the road, holding on till it reached our garage."

"They are strong, indeed, and bold at that," a veterinarian named Marcel van Ommeren later confirmed. "Even when cornered they don't give up."

"How, then, do you treat a sick harpy," I asked the animal doctor.

"The only way I can treat a harpy is by pressing a long, forked stick against its breast. Then I quickly stretch my arm, give it an injection—and try to stay clear of those threatening claws."

If the thought of this powerful, snatching bird now makes you a bit nervous, you are not alone. In fact, Mr. Brunings claimed that some human inhabitants of Suriname's jungle have come to view the harpy as a dreadful enemy. "Some call him *loktoe tigri*, or 'tiger of the sky,'" said Brunings. "They firmly believe that the harpy snatches and carries off small children!"

Ornithologists, though, have claimed that such fears are unfounded.

### ***Snatching for Another Purpose***

The harpy's snatching ways have built a reputation that could threaten its very existence. Nevertheless, the harpy eagle's powerful claws and beak can also serve a peaceful purpose. Usually every other year around the latter part of May, harpy couples pick a giant silk-cotton tree in which to build a nest. Often using an old nest as a starter, they "remodel" it to suit their personal taste.

To do this the harpy couple begins snatching—not opossums and monkeys—but sticks that are then interwoven into a platform that measures four feet (1.2 m) across and is two feet (0.6 m) thick. Green sprigs from nearby trees are used for touch-up work. Interestingly, though, the female is a bit pickier in this regard. Neil L. Rettig, an authority on harpy eagles, says that the female may fly around for a full five minutes before she picks the sprig that suits her fancy. The male, however, shows no such preference and collects

them at random. Even in the animal kingdom, females show a knack for interior decorating!

When nest building is done, the harpy female lays two eggs and settles down for a 56-day incubation period, braving the hot sun and the slashing rain. The father, though, prefers the outdoors, coming back once a week to bring his mate food. He very considerately takes a turn at guarding the nest, allowing his mate to fly to a nearby tree to enjoy her meal. When break time is over, though, he returns to the jungle until she calls for him with her urgent "peeeeaa" to remind him of his family obligations.

After one egg hatches (the second egg is ignored), father's work doubles. He makes food deliveries twice a week until the eaglet is half grown. And for about three months, mother feeds the chick. After that the young one is able to feed itself—though it still prefers to be fed by its mom. After a month the eaglet gets on its feet and wobbles around imitating its parents' repetitive "peeeeeea."

When strong winds sweep over the nest, junior is seen flapping his wings, actually taking off for a moment. When five months old, the eaglet can fly around but is still fed by its parents for some more months until it is strong enough to go its own way. The day soon comes, however, when it takes three or four deep strokes, makes a graceful long glide, and disappears into the forest.

There it will live up to its name as the consummate snatcher of game. True, the harpy's reputation may endanger it. However, observed bush pilot Brunings: "When we fly over the jungle, we spot them once in a while from the plane, flying in pairs or by themselves. I think they will manage to survive."

# An Inventor Makes His Greatest Discovery

THE Protestant revival service was reaching its climax. The visiting preacher, with frenzied eloquence, was describing the terrifying horrors of a burning hell wherein the wicked would be roasted forever. His dramatic description held most of the audience transfixed. Then his piercing eyes caught sight of two young boys laughing—my cousin and me! His eloquence turned to rage as he rained down imprecations on us. It was not that we were irreverent. We just doubted that God could be as fiendish as this preacher was saying.

And I was disturbed that our church was not persecuted. "Why aren't we persecuted?" I often asked my mother. "Jesus said, 'If they have persecuted me, they will persecute you also.' But we're not persecuted at all!"—John 15:20.

I was born in Stoutsville, Ohio, in 1911. My childhood might have seemed lonely to some. I had no brothers or sisters near my age. I was not allowed to play with the neighborhood children. "They use bad language," my mother said. She was quite right, they did. But I was never lonely. I had chores to do. I loved to invent things. I made my own toys. I set up a small paper mill and made my own paper and envelopes. I made my own radio set, with which I could pick up broadcasts from Cuba.

I did odd jobs to make money to pay for my projects. I had a laundry route, fired the church furnace in the winter, rang the big

church bell on Sundays—a man-sized job for a pint-sized boy. I had to jump up and catch the rope and ride it down to start the bell ringing, then ride the rope up to stop its ringing.

I also loved to read. There were only a few books in our bookcase, but the Bible was always out on the table. I had a burning desire to understand it. I read and reread particularly the Gospels and Revelation. Oh, how I yearned to know what God was saying to us in Revelation! My interest in the Bible got a boost when the Sunday-school teacher offered a free Bible to anyone who would memorize the 30 Bible texts she had selected. I did that and became the proud owner of my own Bible.



Nelson Crites with pressure gauge

One scripture on her list has stuck with me down through the years—Psalm 34:7: “The angel of the LORD encampeth round about them that fear him, and delivereth them.” (*King James Version*) My recollection of that text goes back to when I was nine years old, when I had double lobar pneumonia. A few years earlier my little

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**“Your God saved you today.  
Find out who he is and serve  
him”**

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sister had died of it. Having no antibiotics in those days, it seemed that I would follow her. I heard the doctor whisper to my mother about my impending death. “However,” he added, “if he lasts two more hours, he might live.” I lasted the two hours, plus a few hundred thousand more.

A few years after this, our church minister came to visit us. He explained how he had obtained a copy of the 1911 version of the American Standard Version Bible. Then he said something that made my ears tingle: “God’s name, Jehovah, is used throughout the Old Testament.” God has a name? His name is Jehovah? I was so excited to learn this but disappointed to hear my mother say: “I prefer ‘God.’” I was so interested in the Bible that I wanted to be a minister, but I couldn’t agree with our church teachings. So I entered college to study the sciences.

My college career nearly ended before it got started. I bought a motorcycle for cheap transportation, and while traveling to college with my roommate, I suddenly came upon a stalled truck. I swerved to miss it and went over a 40-foot (12 m) cliff. To this day I can close my eyes and see the rocky canyon rushing up at me.

Out of the crowd that had gathered, a tall stranger dressed in black walked up to me and in somber tones uttered a pronouncement that left an indelible impression: “Your God saved you today. Find out who he is and serve him.” Abruptly he turned and walked away, leaving me wondering.

After graduation, I got an administrative post in education. I once had to select a new teacher from among a hundred applicants. Among the applications, I saw a picture that made me think I was looking at my lifelong companion. I recommended that she be hired. Her name was Roberta. Within a year I married her. She did become my lifelong companion. And, in addition, she was instrumental in the fulfilling of my childhood yearning to understand the Bible.

I was working for my doctoral degree in the sciences at Ohio State University, but I had not forgotten my love for God and the Bible. I still occasionally read the Bible but with little understanding. This changed in 1944. A lady called on Roberta and left a religious book entitled *Children*. The lady started a study in it with my wife.

“Stop that study!” I ordered my wife when I discovered that it was with Jehovah’s Witnesses. “They’re not good people. They won’t fight for their country.”

But Roberta did not stop the study. So I decided to investigate. To my amazement, I learned that hell is not hot, the soul is not immortal, and the Trinity is not true. (Psalm 16:10; Ezekiel 18:4; Jonah 2:2; John 14:28) God is one God and his name is Jehovah, the name that had made my ears tingle so long ago. The more I investigated, the more the scales fell from my eyes. I had found the God the stranger in black had told me to find and serve. This was a God I could dedicate my life to. Not a fiend who tortured people in fire and brimstone for

eternity. Not a falsifier who promised that the meek would inherit the earth, then burn it up instead.—Ecclesiastes 1:4; 9:5, 10; Romans 6:23.

Roberta and I agreed that we had found the pearl of high value. (Matthew 13:45, 46) In 1945 we were both baptized to symbolize our dedication to do God's will as Jehovah's Witnesses. I abandoned my studies for the doctorate and my plans to be a college professor. I got employment at a big research institution and began a career of inventing. Both my childhood loves had resurfaced—to invent things and to understand the Bible.

As the years passed, many interesting projects came along. One involved helicopters. If the pitch of their blades is too great, turbulence develops, you stall and drop like a rock. Something was needed to prevent this from happening. I invented a tiny pressure gauge only 20 thousandths of an inch thick. Gauges made over this design were mounted on the surfaces of the rotor blades. As the blades rotated, the gauges indicated the varying pressures on the

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### **"Stop that study!" I ordered my wife when I discovered that it was with Jehovah's Witnesses**

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blades. This important information helped the designers to correct the problem and prevent stalls. This invention got worldwide attention.

These tiny pressure gauges were used medically. People are sometimes given drugs for the heart when the real problem is spasms in the esophagus. Both conditions produce pain in the chest and down the left arm. A tube equipped with three of these tiny pressure sensors, when inserted down

the esophagus, tells if the pain is from a spasming esophagus. From the esophagus it can also check the heartbeat, and by measuring pressure in the lungs when the person is exhaling, it can detect emphysema and even tell how far advanced it is. This esophageal motility probe, as it was called, was used in hospitals and shown all over the world.

These pressure gauges are also used to measure pressure in the brain when there is swelling. When pressed against the cornea of the eye, they measure the varying pressure as the heart beats, which changes reflect the pressure in the carotid arteries and may detect a partial blockage.

Another project involved the instrumentation of delivery forceps. When instrumented, the forceps tell the physician how much pressure he is applying on the fetal head.

One time a doctor mentioned that he would like to see what happens in the bronchial tubes when smoke is inhaled. This was done by means of fiber optics. The design was worked out by a coworker, Samuel Chambers (also one of Jehovah's Witnesses). The instrument was made and inserted down the bronchial tubes. We could see the fine hairs, the cilia, waving and cleaning the bronchia of particulate matter. But when smoke was inhaled and hit the cilia, they quit waving! The smoke paralyzed nature's mechanism for cleaning the bronchial tubes.

I also, along with Chambers, developed a special type of pacemaker. Inserted into the heart, it would measure the pressure inside the heart at the same time that it was pacing the heart. With it you could also inject medication into the heart or take out blood samples. It was used in hospitals.

At one time, I was doing a series of articles on new ways to measure mechanical

strains on structures. The articles, done for McGraw-Hill publishers, attracted quite a bit of attention and ended up as a book, which for a while was used as a college textbook.

About the time I was doing this, I talked to a doctor in the Ohio State University hospital

## The smoke paralyzed nature's mechanism for cleaning the bronchial tubes!

about blood transfusions. He was demeaning the Witnesses as nobodies and accused the *Blood* booklet, published by the Watch Tower Society, of misquoting a doctor.

"Don't talk to me about misquotes, doctor!" I exclaimed. "I know what misquotes are. I'm publishing material every month. That doctor was not misquoted, and you know it!" I was a little heated up and continued: "You doctors may have killed George Washington by taking blood out of him, and now you're killing people by stuffing contaminated blood into them!" Well, after that we had the nicest talk.

Another similar case. An elderly woman, one of Jehovah's Witnesses, was in a car accident and was taken to the Ohio State University hospital. The doctor there was trying to convince her to take a blood transfusion. I was called in to reason with him, but he dismissed my arguments with disparaging remarks about Witnesses who knew nothing about medical matters trying to tell doctors what to do.

"Do you know anything about the esophageal probe?" I asked. I told him I invented that device and at one time discussed its use with some of the hospital staff at one of their staff meetings. His attitude changed considerably and the tension subsided.

I had a part in solving a difficult problem in the space program. NASA needed something to measure the pressure in the rocket nozzles. The temperature in them can approach that of the surface of the sun. Other pressure sensors had apparently not functioned well.

My superior and I went to Huntsville, Alabama, where rocket research was carried on. There we met a German who was in charge of this project. He entered the room and abruptly said, "Well, how do you do it?" No preliminaries.

I was told to explain our idea. This was to make a small pressure sensor involving the use of a fluid that will not burn and would keep the sensor cool.

"That will work," the German said. The conference was over—the shortest one I ever attended! The device was made, it worked, and I shared in a NASA award. During my 25 years in research, I got more than 30 patents.

My greatest discovery of all, however, was not made as an inventor. It was made

## The device was made, it worked, and I shared in a NASA award

when I rediscovered the identity of the true God, Jehovah, along with an appreciation of all that the name meant. (Psalm 83:18) I told my coworkers about him. I conducted home Bible studies with some of them and their families. At one such study, 17 attended, at another, 19.

Almost everyone where I worked knew I was one of Jehovah's Witnesses. On my lunch hour I would always try to pick out someone different to sit by so that I could witness to him. One day I asked a man, "Do

you mind if I sit here?" He said, "Yes, I do!" I had to smile. He had heard about me and apparently he didn't want to be witnessed to.

One time the governor of Ohio visited the place where I worked, and I was assigned to talk to him. It worked out to my advantage. I was having a study in the Ohio State maximum security prison, and on one occasion the Protestant chaplain wasn't going to let me baptize a prisoner with whom I studied the Bible. I said to him: "You know, I was talking to the governor just last week. I think you need help." The change was instantaneous: "Well, now wait a minute!" he said. "We'll take care of it!" He did, and I entered to see my Bible student.

When we started going to the Kingdom Hall in Columbus, there were two congregations. Twenty-five years later, there were 24. By that time I was serving as the city overseer. One outstanding experience was the construction of an Assembly Hall in that area. I was studying with Norman Watson, and one day I told him that we needed property for an Assembly Hall.

"Let's go look at some land," he immediately said. He showed me several places and asked: "Which one do you want?" He gave us a fine piece of land in London, Ohio. He was later baptized.

It took us 14 months to build the Assembly Hall. Each week the building committee got together to

count the money. Did we have enough to go on for another week? Each week this happened, and each week Jehovah had provided enough to continue construction. Brothers Knorr and Suiter came out from Brooklyn headquarters to serve on the dedication program.

Roberta and I have had many happy years helping others come to know Jehovah. One of the first ones we shared the truth with—it brought a special joy to me—was my cousin Vaughn Crites. It was he who, along with me so many years ago, raised the ire of the revival preacher when we laughed at his hellfire slanders against our loving God, Jehovah. Also my mother, in her old age, came to love God's name Jehovah. She died after expressing her desire to be a Witness at 90 years of age. And today Roberta and I are enjoying the privilege of serving Jehovah with the congregation in Sebring, Florida.

Finally, my childhood distress at not being in a religion that's persecuted is past. Witnesses are persecuted earth wide. And along with the persecution, they are experiencing the truth of the text I learned as a young boy: "The angel of Jehovah is camping all around those fearing him, and he rescues them."—*As told by Nelson Crites.*

**Nelson and wife  
Roberta studying**



# From Our Readers

## Misrepresenting Gypsies

We must protest in the strongest possible terms at the misleading representation of a Gypsy on the cover and inside of your August 22, 1986, issue. The media-generated stereotype of the Gypsy with the crystal ball, beads, and bandanna is a far cry from what we are actually like. Members of your faith died with us in Hitler's Germany; it is all the more to be wondered at, then, that you would have so little regard for our dignity and sensibilities.

S. C., Romani Union, United States

*We did not intend to offend the sensitivities of Gypsies, who are, in fact, not even mentioned in our articles on "The Mystery Behind the Occult." What we were illustrating is fortune-telling with the use of the crystal ball, something readily identified with the occult the world over. While some Gypsies used to specialize in fortunetelling, this occupation is by no means limited to Gypsies. Further, though Gypsies may have made great use of the beads and the bandanna, many people of other cultures and ethnic backgrounds also use this form of dress. Fortune-tellers often use such a costume though they have no Gypsy origins or connections. Please see our article "Gypsies—Are They Misunderstood?" (May 22, 1986) for more information.—ED.*

## Why Not Cheat?

How timely and much needed was the information in your article "Young People Ask . . . Cheat—Why Not?" (June 8, 1986) Our son, who is now 11, has been raised on Bible principles since he was 2. But much to our dismay, one school morning we received a phone call from his teacher informing us that our son had been cheating in class. What failures as Christian parents

we both felt. What more could we say to impress upon him the seriousness of what he had done? My heart nearly skipped a beat when my husband handed me the June 8 Awake! from the day's mail. Here in the "Young People Ask . . ." article was exactly what we needed to help our young son! As parents, how appreciative we are for the help we receive from such articles. We pray that the days ahead will prove that this information not only reached our young son's mind but reached his heart as well.

P. W., United States

## Giving Up Smoking

As a smoker who for more than ten years consumed 20 cigarettes per day, I read with great interest your issue "Hooked! Will the World Kick the Habit?" (April 8, 1986) I have tried just about everything to overcome this bad habit but without success. Now I feel I must and can quit, for it is very important for me to do what is pleasing to Jehovah. Thank you for your help.

H. F. D., Brazil

Thank you for your most recent article on smoking, entitled "Why People Smoke, Why They Shouldn't." (July 22, 1986) Not only will it benefit those trying to quit smoking, but it is a great help to those of us who have quit, to keep us on the right track. Actually, the anxiety of quitting is much worse than quitting cold turkey. I tried getting away from cigarettes by using little cigars, then a prescription to use in my mouth to make tobacco so distasteful I wouldn't care to smoke. Nothing worked, because I was toying around with the tobacco in my mouth. It was my heart that had to be reached. It meant putting on "the new personality."—Colossians 3:10.

L. C., United States

# Watching the World



## Priest Censured

The Vatican banned Charles E. Curran, a 52-year-old priest and leading American theologian, from teaching Roman Catholic theology at Catholic University of America in Washington. The censure resulted from Curran's repeated challenge of the church's absolute prohibition of artificial birth control, homosexuality, abortion, pre-marital sex, and divorce. Curran contended that under special circumstances these acts can be morally justified. (According to a public opinion poll taken in 1985, the majority of U.S. Catholics agree with Curran's view of morality.) This action—the first on strictly moral issues in more than 20 years—is seen as a modern precedent for the church's defense of its claim of infallibility on moral teachings. Some Vatican officials believe that this censure is the Vatican's way to eliminate dissent among U.S. Catholics on issues of church authority and sexual morality.

## AIDS and Transplants

At least two organs with hidden AIDS contamination were transplanted to other people, said officials at a Greensboro, North Carolina, hospital. The organs containing AIDS antibodies were taken from a brain-dead accident victim who had received massive amounts of transfused blood. Ini-

tial blood tests of the victim failed to reveal that the blood was infected. It appears that the new blood masked the AIDS antibodies. Although transplanted organs have not been found to transmit AIDS, the U.S. Centers for Disease Control warns that organs from people with AIDS are "considered as potentially infectious" and should not be used for transplants.

## Coffee or Tea?

Because of natural and man-made disasters, coffee-producing countries have seen a drastic de-



crease in coffee production during the past year. An estimated 30 million bags of coffee were produced during the 1984-85 period, reports *The Times* of London, whereas production may be only 16 million bags during 1985-86. As a result, the price of raw coffee has almost doubled—an increase inevitably passed on to the consumer. Are Britons alarmed by rising coffee prices? Apparently not. *The Guardian* reports an increase again in tea consumption among the Brit-

ish. About 80 percent of the nation's population are tea drinkers. Britons drink an average of four cups a day—more tea than is drunk by "the rest of Western Europe and the United States put together." The cost? As little as a penny (about 1 1/2 cents U.S.) a cup, plus the cost of milk and sugar.

## Lutherans Unite

Beginning officially on January 1, 1988, the Evangelical Lutheran Church in America will become the fourth largest Protestant church in the United States, with 5.3 million members. After 20 years of negotiations, three separate Lutheran bodies voted overwhelmingly to merge into one new denomination. Bishops of the merging bodies hope that the new church will have greater influence with government officials on social issues and a more coherent voice in ecumenical contacts with other churches, and that it will attract more blacks, Hispanics, and Asians to the new church.

## Youth Informs On Parents

A 13-year-old California girl who informed on her drug-using parents last August has become a celebrity. Hollywood movie producers see the potential for a box-office hit in the dramatic twist of a child's informing the police about her parents' illegal drug use. "At

least a dozen movie production companies are actively seeking the rights to her story," reports *The New York Times*. She is said to have turned over to the police a bag filled with marijuana, pills, and cocaine after unsuccessfully pleading with her parents to stop using drugs.

### Nurses Still Smoking

Despite increasing cases of lung cancer and irrefutable evidence of the link of the disease to tobacco use, large numbers of nurses are taking up cigarette smoking, claims Dr. Craig Stotts at the University of Texas at Austin School of Nursing. His research found that fewer nurses have given up smoking than have members of other groups of health professionals and that nurses have a higher rate of smoking than the American public as a whole. Why? Reasons nurses give for not giving up smoking are stress, frustration, and lack of will-power. "If we had not had cigarettes," said Stotts, "lung cancer would be one of the rarest diseases around."

### H-Bomb Accident

Newly released U.S. government documents reveal that one of the most powerful hydrogen bombs ever made—42,000 pounds (19,000 kg)—dropped accidentally from a U.S. bomber near the city of Albuquerque, New Mexico, 29 years ago. There was no nuclear blast and no one was injured, although the nonnuclear explosives in the bomb did detonate upon impact, creating a crater 12 feet (3.7 m) deep by 25 feet (7.6 m) in diameter, according to the *Albuquerque Journal*. "It is possibly the most powerful bomb we ever made," said a nuclear weapons

specialist. Researchers believe that the bomb's potential nuclear force was more than ten megatons, or ten million tons of TNT, over 600 times the destructive power of the atom bomb dropped on Hiroshima in World War II.

### Nearly Extinct

One of several species of birds related to the spoonbills, the colorful Japanese ibis, is threatened by extinction. In 1977 there were eight crested ibis in Japan. By 1981 only six of these beautiful birds were left. In an effort to avoid extinction and encourage breed-



ing, the Japanese Environment Agency captured the remaining wild birds and placed them in a preservation center on the birds' native island of Sadogashima, Japan. By 1983, just one male and two females were still alive. Since the birds were not producing, China loaned one of their 18 Japanese ibis, a male, to Japan. However, to date, the breeding effort has proved unsuccessful. With the recent death of one of the two remaining females, officials of the Environment Agency and the Toki Preservation Center are considering artificial insemination as a last hope to preserve the Japanese species.

### Right Seeds for Africa?

The Green Revolution of the 1960's introduced seed varieties

that have brought bumper harvests in many countries. Why have the same seeds not reduced hunger in Africa? "The Green Revolution did not help Third World Southern Africa," states Dr. H. Garnett, head of the Department of Microbiology, University of the Witwatersrand, South Africa. New varieties of seed depend on farming techniques that are too costly for most Africans. In addition, Africa's climate and soil often differ from lands where the seeds were developed. "One has to be careful in introducing varieties developed in Europe or the USA," explained Garnett. "Some kinds of high yielding maize do not suit some African farmers as they require large amounts of added chemicals and water to achieve maturation."

### Early Start

Daylight saving time will start earlier in the United States next year. Instead of starting on the last Sunday in April, it will start on the first Sunday in April. It will still end on the last Sunday in October. It is estimated that the earlier start will prevent over 1,500 injuries and 20 deaths due to traffic accidents and save more than \$28 million in accident costs.

### New Car for Disabled

A car for the severely disabled has recently been developed in Japan. "The new car can be controlled by those with severe physical disabilities in all four limbs, including people now [confined] to electric wheelchairs," reports the *Asahi Evening News*. Remodeled from a regular passenger car, the driver uses a 12-inch-long (30 cm) stick in-

stead of steering wheel, accelerator, and brake pedals. Pushing the stick forward accelerates the car, backward applies the brakes, and sideways does the steering. Buttons set up near the stick take care of other operations such as lights, wipers, and backing up. Remodeling one car costs about 900,000 yen (\$5,800, U.S.).

### New Relic?

An ancient boat found on the bottom of the Sea of Galilee when drought caused the water level to recede is fast becoming a religious relic. Archaeologists have dated it from about the time of Christ and say that the wooden boat has survived because of being covered by a layer of oxygen-free silt that supported little bacterial activity. As report-

ed in *Discover* magazine, the boat was encased in polyurethane and brought to shore, where it will be embalmed by means of a synthetic wax. "The last thing in the world we want is for this to turn into a holy relic," says archaeologist Shelly Wachsman of Israel's Department of Antiquities. However, pilgrims have been flocking to see it, believing it to be the boat in which Jesus crossed the Sea of Galilee soon after he miraculously fed 5,000 people. When some find they cannot touch the boat because of its frailty, they ask to touch Wachsman's hands, since he touched the boat!

### Self-Defeating

Fighter aircraft have increased so much in speed and maneuverability

in recent years that humans have become the limiting factor in the technology. World War I planes had from 10 to 15 gauges, instruments, and controls. That went up to 35 in a World War II fighter. Today's planes have about 300. The pilot must monitor and interpret all the information and make split-second decisions while in a dangerous environment. Additionally, the planes can perform high-speed maneuvers that put tremendous strain on the pilot. In regard to one tight turn, *The Wall Street Journal* said: "At best, such a maneuver will pop blood vessels in his arms, cause temporary blindness, slam his head into his chest, drain blood from his brain and make him feel as though he weighs nine times his normal weight. At worst, it can cause a blackout and a crash." A number of pilots have lost their lives in this way.

that he became a member of the congregation. "We're glad we have a lot of people who are members of our church," says the pastor. "We're also glad to have a lot of people who are members of other congregations." The pastor adds that the church has a good relationship with the local police department. "They're very good people," he says. "They're always there for us if we need them." The pastor also says that the church has a good relationship with the local schools. "They're very good schools," he says. "They're always there for us if we need them."

The pastor's wife, Mrs. John W. Miller, is a member of the congregation. She says that the church has a good relationship with the local schools. "They're very good schools," she says. "They're always there for us if we need them." The pastor's wife, Mrs. John W. Miller, is a member of the congregation. She says that the church has a good relationship with the local schools. "They're very good schools," she says. "They're always there for us if we need them."

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## New Relief

A new relief post took office yesterday to fill the gap left by Captain William Thompson, who served the post for 18 years. Captain Thompson, who was promoted to Captain in 1978, has been succeeded by Captain William Thompson, who has been serving as Acting Captain since Captain Thompson's retirement. Captain Thompson's retirement was effective yesterday morning at 0600 hours.

## Self-Defense

(Editor's Note: This issue includes a 12-page supplement on self-defense and self-reliance.)