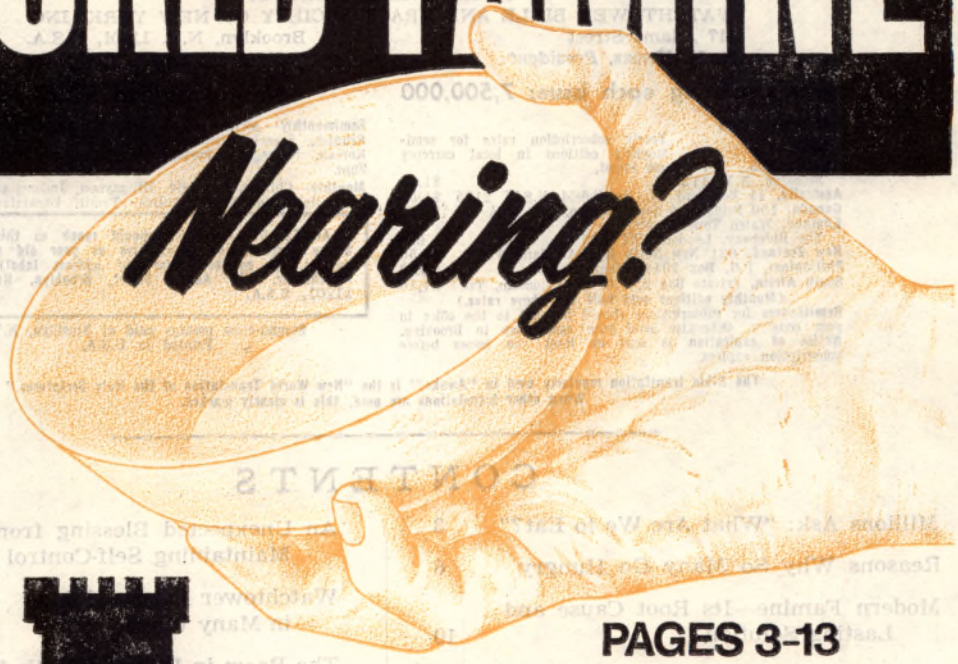
Awake!

IS WORLD FAMINE Nearing?



PAGES 3-13

JUNE 22, 1973

THE REASON FOR THIS MAGAZINE

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

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

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

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

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

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CONTENTS

Millions Ask: "What Are We to Eat?" 3

Reasons Why So Many Go Hungry 6

Modern Famine—Its Root Cause and Lasting Solution 10

The Flooding Mississippi Upsets America's Breadbasket 14

How Long Could You Survive in Deep Water? 17

An Unexpected Blessing from Maintaining Self-Control 19

Watchtower Farm—Unique in Many Ways 20

The Boom in Bikes—What's Behind It? 25

What Is the Bible's View? Why Are Some Born Handicapped? 28

Watching the World 30

Awake!
"It is already the hour for you to awake."
—Romans 13:11

Volume LIV June 22, 1973 Number 12

MILLIONS ASK: "What Are We to Eat?"

A VILLAGE farmer left a drought-ravaged field in India to bring his only bullock to market for sale. What did he get in exchange for the animal? Twelve bananas! This man, like millions of others in India, is hungry!

Not just in India, but throughout the rest of Asia, much of Africa and other parts of the world, large portions of the population are asking: "What are we to eat?"

So critical is the situation that some experts predict international famine conditions within months.

The Famine That Was 'Not Supposed to Happen'

It is true that certain places, like India, are known for their periodic famines. But the current food shortage is distinctive. A fifty-year-old Indian government clerk says: "This is the worst I have ever seen in my lifetime." Aggravating this famine is the fact that it was 'not supposed to happen.' But were there not warnings several years ago of such coming famine?

Yes, there were. In fact, the book *Famine—1975* (published in 1967) quoted Dr. R. Ewell as predicting: "The world is on the threshold of the biggest famine in history. If present trends continue, it seems likely that famine will reach serious proportions in India, Pakistan and China early in the 1970's. . . . Such a famine will be of massive proportions affecting hundreds of millions."

This and similar warnings were quite well known among food experts. But something happened to silence temporarily such dire predictions.

In the mid-sixties the so-called "green revolution" was started with great fanfare. Special high-yielding types of wheat and rice were developed, and these bolstered hopes that hunger was about to be "conquered." The voices predicting famine were muffled.

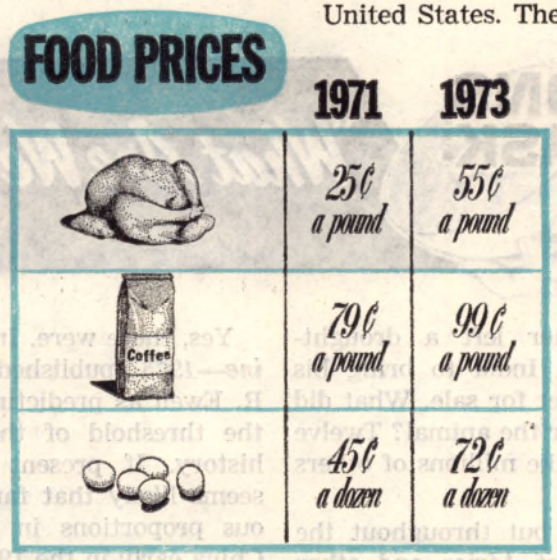
However, now the hope of the "green revolution" appears hollow. Says the New York *Times:* "Asia's Green Revolution, which promised a new era in food production and an end to famine forever, suffered a severe setback in 1972." It also

noted editorially: "The great promise of the green revolution, which was never as green as it was sometimes pictured, appears to be fading."

Food Supplies Shrivel in Asia and Africa

Yes, a few months back the "green revolution" seemed a glowing success, a triumph for technology. After the 1971 season, Prime Minister Indira Gandhi felt confident enough to declare that India would not be importing more grain.

But in less than a year that country has gone from a record surplus to a national food crisis. In one state 50 percent of last year's corn plantings died; only 30 percent of the rice could even be planted. The entire national grain harvest fell about 60 percent below normal. Men are compelled to work long stretches without food. And matters are predicted to worsen—but not only in India.



Recent famine conditions in Afghanistan have been "only partially reported to the outside world," says the South China *Morning Post*. People in Afghanistan have been forced to leave their villages and have been reduced to eating grass and roots. Some have sold their work animals, land and even the roof timbers from their houses to buy whatever food is available. It has been reported that tens of thousands have died.

Reports of food shortage also come from the Asian countries of Indonesia, Bangladesh, Pakistan, Cambodia, Laos and Turkey. Drops in crop production occurred in South Korea and Thailand.

Russia and China also have suffered recent grain setbacks. "The Soviet Union had its worst harvest in a century," said Canada's *Spectator* regarding the 1972 season. Russia was compelled to buy almost $2,000,000,000 worth of "urgently needed" foreign grain, mostly from the United States. There was also a decline in potato and vegetable production. The huge Russian shortages brought problems for the whole economy and led to the replacement of their agriculture minister.

China's grain production was down in 1972, as were yields of cotton, sesame and peanuts. It is one of the few times that they have officially acknowledged grain production losses since the Communists came to power in 1949.

Africa has also been affected by severe food shortage. The Rhodesian farmers' union refers to the 50-percent drop in crop production as a "national tragedy." The situation in Mauritania is called "extremely serious." Estimates there say that perhaps 80 percent of the cattle have died; grain production is only one fifth its normal level.

Crop losses to farmers in South Africa were over $320 million by early 1973. Mali, Chad, and Upper Volta, the countries just below the Sahara Desert, are the hardest hit. But Zambia, Botswana, Swaziland, Central African Republic, Senegal, Dahomey, Cameroon and Nigeria are also feel-

ing the effects of limited food. Reports of food shortages are also coming from islands of the sea and South and Central America.

Yes, 'the world is on the threshold of famine,' warns Dr. Boerma, director general of the U.N. Food and Agriculture Organization (F.A.O.). In February 1973 he advised that any country needing help should 'make arrangements now' with other countries.

But can other countries continue indefinitely to help? What are the conditions in the nations that are known for their high agricultural productivity?

How Much Food in Other Places

What of the United States? Although not hit by major crop failure, it now has within its borders over twenty-five million persons who do not enjoy what is officially called a "decent standard of living"—in other words, they are poor and often hungry.

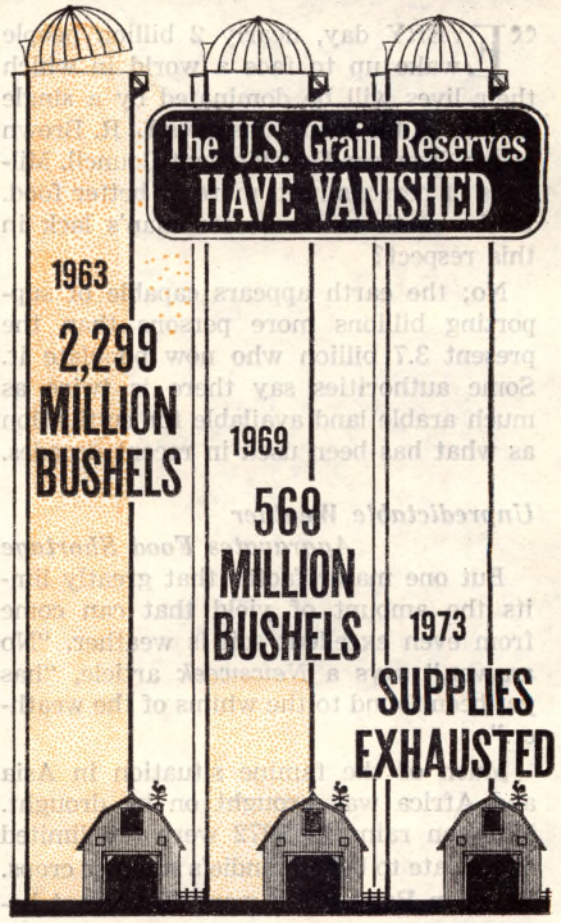
At the same time U.S. food prices continue to rise! In 1972, retail food prices were up 4.8 percent in the U.S. over the previous year; they are predicted to rise 6 percent in 1973. Meanwhile food prices soared 8.6 percent in neighboring Canada during 1972.

These price hikes are directly affected by the amount of food available. The greater the demand for existing supplies the higher the prices. Thus in the United States during 1972 the price of "number two hard wheat" rose over 61 percent per bushel, largely due to Soviet demands on the existing supply. Now, as the accompanying chart shows, U.S. reserves have vanished.

Last year's Australian wheat crop was less than one half of the expected yield as that continent suffered severe drought. Argentina's 1971 wheat harvest was described as "disappointing." The surpluses of Burma (sometimes called 'the rice bowl of southeast Asia') are now very limited.

Understandably, more and more experts are reaching the conclusion that the few agriculturally rich nations cannot indefinitely feed the rest of the world. Back in 1969 Harvard University's R. O. Greep noted:

> "A factor of critical importance to the world situation is that the food reserves in countries with heavy agricultural production, such as the United States, Canada, Australia, and Argentina, are rapidly being depleted . . . To those who are in a position to sense the future situation, there is mounting appre-



hension. . . . The problem will be particularly acute in the United States, since we are looked upon as the principal supplier of grain . . . When famine strikes and the food source no longer suffices, then we shall have to face the awful question of who shall survive."

In 1973 when a Canadian wheat official was asked about continuing to supply the world, he answered: "You cannot sell or give what you do not have."

The food crisis that the whole human race faces is real. Can it be solved? To answer that question we must first determine *why* famine now stalks mankind.

Reasons

WHY SO MANY GO HUNGRY

"EVERY day, nearly 2 billion people wake up to face a world in which their lives will be dominated by a single desire . . . for food," observes L. R. Brown of the Overseas Development Council. Millions of persons need more or better food. Is the earth to blame for man's lack in this respect?

No; the earth appears capable of supporting billions more persons than the present 3.7 billion who now populate it. Some authorities say there is twice as much arable land available for cultivation as what has been used in recent decades.

Unpredictable Weather Aggravates Food Shortage

But one major factor that greatly limits the amount of yield that can come from even excellent soil is weather. "No answer," says a *Newsweek* article, "has yet been found to the whims of the weather."

Much of the famine situation in Asia and Africa was brought on by drought. Monsoon rains in 1972 were too limited or too late to benefit India's summer crops. Rains in Bangladesh were 40 percent below normal during the growing months. The weather's irregularities also dangerously affected production in the Philippines. In the north, the rice crop was ruined by the worst floods of the century; while in the south, crop yields were limited by drought.

Russia, on the other hand, has suffered large grain losses in the last two years because of receiving only light snow cover during the winter; grain crops were thus left to suffer frost damage. In China, the Hsinhua press agency says that not only drought, floods and frost, but also windstorms, hail and insects devastated many of their crops. The world's current food crisis should realistically remind man of his weakness before the natural elements.

The uncertainties of weather have largely canceled out the effects of the "green revolution." It is feared, however, that the "green revolution's" limited success may be even further curtailed. Why?

Because when a large area is planted with a single grain crop it is vulnerable to affliction by a single devastating plant disease. Similarly, insects that thrive on

one variety of grain can wipe out a whole crop. Indeed, a local joke in Pakistan says that 'the new miracle wheat has given rise to a new miracle locust!'

Technology Fails to Solve Food Shortage

While control of the natural elements is out of man's hands, what about technology? Although it has developed techniques and equipment that are valuable, it has also done much to contribute to the current food shortage. 'Urban sprawl' gobbles up much fine farmland as man's cities grow. Industrial pollution and wrong use of commercial fertilizers have greatly lessened the fertility of countless acres.

Further, much agricultural research today, while centering on "cash crops," is oblivious to the real *food* crops of poorer nations. An article in *BioScience* magazine points out that the world's food problem persists largely in the tropics. Nevertheless, most scientific study is on crops that thrive, not in the tropics, but in the temperate zones.

Modern technology has not, therefore, solved the overall food shortage. In fact, in some respects it has *contributed* to the current crisis. Other factors, also of man's making, have likewise seriously aggravated food shortage.

Irregularities of weather and other problems have greatly reduced the effects of the "green revolution"

Politics and Hunger

Man's political wars —not 'natural causes'— can be blamed for the suffering from food shortage right now in places like Cambodia and Bangladesh. Agricultural systems, grain and water supplies, as well as draft animals, have been destroyed by war.

As a result, there have been food riots and looting, as in Phnom Penh, capital of Cambodia. Soldiers guarding bridges have assessed "black taxes" on trucks carrying produce into that city, doubling the price of food; prices have trebled in other places in Cambodia.

In Bangladesh, food cannot get into ports that have been blocked by mines or sunken vessels; many bridges in that country are still not usable. Through last October, of $1,000,000,000 in relief funds sent to Bangladesh, *only one third was used for food*. The remainder was needed to restore the nation's transportation and communication systems.

The political system itself often cripples efforts at fighting famine. Notes *Newsweek:*

> "In Indonesia, bureaucrats are the problem. Under a typical Indonesian system called **abs asal asal bapak senang** (as long as the father is happy), agriculture officials not only failed to report the bad news of production setbacks to President Suharto but also failed to build up the government's stockpile of rice."

Similarly, *Economic and Political Weekly* of Bombay, India, admits:

> "The pattern by now is wearily familiar; the complaisant officials tell the junior ministers what they want to hear, the junior ministers tell the senior ministers what they want to hear and so on till the chain ends with the Prime Minister."

LEADERS OF PROMINENT RELIGIONS ENCOURAGE LARGE FAMILIES —EVEN IN POOR COUNTRIES!

'Hindus must not become a minority'

—Hindu Leaders in India

'Birth control is irrational'

—Pope Paul VI

'What are we to eat?'

Religion and the Famine

Religion, too, often contributes to the food problem. Consider an example.

Seventy-three people live in the village of Nazrichawk in the Indian state of Bihar. The soil there is described as "good." Further, after the last drought, in 1967, an effective irrigation system was set up. Today, however, the diesel pump operating the irrigation system is rust-coated and the people go hungry! Yet they *can* afford to get the pump fixed. Then why does it stay in disrepair? Answers *Natural History* magazine:

"The problem is that the necessary work projects would require a group effort: to develop schemes any more sophisticated than a bullock-drawn waterwheel demands consensus on such issues as water distribution, financing and labor. Such common needs, however, rarely unify a community divided by religion, caste, and politics. . . . A multitude of small, caste-oriented political parties are active throughout the state, and their activities further fragmentize the villages. Instead of being a community, a village often disintegrates into hostile factions splintered along religious, political, and caste lines."—January 1973, pages 34 and 35.

Yes, people starve because religion and other social forces divide them! But there is another way in which some religions affect the food problem adversely.

Certain religions discourage small families; yet more births mean more mouths to feed. Already India alone has 550 million people. Each year that country increases by another twelve to thirteen million people. That is the equivalent of the entire population of the continent of Australia! Though the Indian government seems to have earnestly tried to encourage smaller families, its success has been limited—by religion.

As a case in point: Recent figures show that in the last decade the number of Hindus increased by only 24 percent, while the number of Moslems was up 31 percent. On learning this, what did Hindu religious leaders do? Bombay journalist A. S. Abraham says they "lost no time in using these statistics to buttress their repeated appeals to Hindus not to practice family planning for fear of becoming a minority in their own country. They simply ignored the fact that Hindus consti-

tute 82 percent of the population, while Moslems account for roughly 12 percent." Such religious leaders do much to nullify the government's efforts at controlling population.

Furthermore, most Indians readily comply with the wishes of their religious leaders. Why? Because to them children are a form of wealth. Farmers, for instance, use their children to 'look after the goats.' Too, parents want children who will take care of them in their old age. Many Asian children die early in life; thus the more offspring one has, parents reason, the greater the likelihood that some of them will survive until the parents' old age.

Opposition to government programs for birth control comes not only from 'Eastern religions.' Christendom, too, is a source of stiff opposition.

In 1930 Pope Pius XI summarized the official Catholic position on birth control in his encyclical *Casti connubii*. He called most birth-control methods "an offense against the law of God and of nature, and those who indulge in such are branded with the guilt of a grave sin." Popes since then have reaffirmed this belief.

The current pope, Paul VI, told a United Nations audience in October 1965 that "artificial control of birth" is "irrational." Then, in July 1968, he issued his own encyclical on the subject, *Humanae Vitae*. By mid-1970, just two years later, the population of Catholic South America had increased by another ten million persons, *or about twice* the number of people living in the entire nation of Bolivia! Yet, since 1944, food production per person has been decreasing more in Latin America than in any other part of the world.

So-called Christian religious leaders should be aware of the truth stated by the Christian apostle Paul: "If anyone does not provide for his own relatives and especially for members of his immediate family, he has denied the faith; he is worse than an unbeliever." (1 Timothy 5: 8, in the Catholic *New American Bible*) The size of one's family is, of course, a personal matter. Nevertheless, should parents be encouraged to bear so many children that they cannot "provide for" them, leaving them to go hungry? Obviously not.

Some of the world's largest religions, therefore, must share the responsibility for earth's bulging population and food crisis.

There are yet other factors that contribute to famine conditions, factors that are difficult for well-fed persons from 'rich nations' to appreciate fully.

Effects of Malnutrition

One of these is the adverse physical effect of malnutrition. Hungry people often cannot provide food for themselves. They are prone to disease, since natural immunity vanishes with poor diet. Persons with wasted legs and who cannot walk because of malnutrition can be seen in many countries. How much heavy work can such persons do on farmland?

Mentally, too, people are affected by malnutrition. What may at first appear to a visitor as a natural 'calm' in some nations is often the tiredness, aimlessness and complacency brought on by a poor diet. Arthur Hopcraft says about one country in his book *Born to Hunger:* "I saw very little playfulness among children; hardly any games being played. The prevailing frailty and dullness of the children is one of the most affecting aspects of everyday life." Can dispirited, weakened persons be expected to respond vigorously to the challenge of providing ample food for their families? They are

obviously limited in what they can accomplish.

Unfortunately, too, people from richer nations often fail to realize that, while persons reared in an altogether different culture generally think differently than they themselves do, this does not necessarily mean that they are backward or inferior. Yet men considered dedicated to solving world food problems may regard themselves as superior to the natives of a foreign land. This limits their effectiveness. It is one more reason why the world still has a food crisis. Says Cornell University's H. D. Thurston:

> "The ability to meet one's hosts and treat them as equals and coworkers often is more important than one's scientific knowledge. . . . Even the poorest farmer and laborer often has great pride and human dignity. The least suggestion of inferiority will be resented and may ruin all one's future work."

Yet, the humility needed to solve this system's international food problems is not readily found.

The food shortage, therefore, runs much deeper than merely the right combination of soil and weather. Man's political, technological and religious activities and social attitudes, as well as his lack of humane consideration, have unquestionably complicated the problem beyond the ability of imperfect men to solve.

We today, as a consequence, are witnessing a worldwide paradox. Just consider: man now has the technical 'know-how' for producing abundant crops by using vast irrigation and storage systems. He has schools to teach sophisticated agricultural techniques. There is impressive farming equipment to cultivate huge areas of land. An international F.A.O. keeps men informed about the food situation everywhere, and fast communications advise them where supplies are necessary. Rapid transportation systems can speed food to where it is needed. *Nevertheless, thousands of people still die EVERY DAY from starvation.*

Why now, at this time, does this paradoxical situation exist? There must be a reason. And, just as importantly, is there a sure solution to the world's food crisis?

MODERN FAMINE
—Its Root Cause *and* Lasting Solution

DOES it not seem incredible that, with such seemingly favorable advances, man's progress in feeding earth's population is all but canceled out? Many factors, as we have seen, contribute to this. But why is it occurring *now?* To answer that we must go back to World War I, which started in 1914. But why go back almost sixty years?

Because that year marked what an American newspaper called "the beginning of most of our present international troubles." How so? Because the divisive spirit of nationalism took hold on mankind to an extent without precedent. This led to further distress. Historians say—and many other persons still living can verify—that World War I brought in its

wake one of the most terrible famines of history, taking in most of Europe and Russia. The war ruined fields in vast areas. Transportation systems were disrupted. The horrible effects of resulting famine contributed, in turn, to another devastating holocaust—World War II.

"It must be remembered," observes the book *1918*, "that the road for those [World War II European] dictators was cleared largely by what the people of those countries went through in the terrible winter after [World War I]."

The second world war repeated the cycle —but on a greater scale. A former U.S. surgeon general tells us: "After World War II, there occurred the greatest worldwide shortage of food in history." And since that time, yes, right down to this moment, there have been countless smaller wars and revolutions, triggered by nationalism and producing more starvation. Nor is it simply by disrupting agriculture and shipping that the wars since 1914 have produced famine.

They have intensified the spirit of nationalism. Wedges have been driven between nations of men, separating and antagonizing them. As a result, when a nation has bountiful crops does it share readily with poorer nations? If it appears to be politically advantageous, yes. But the richer one may also be paying its farmers *not* to grow food, even though thousands of people who live in other nations are known to suffer malnutrition!

Yes, for these reasons—all of which are the fruits of nationalism—man's technical advances in farming methods have all but been canceled out.

How the Bible Predicted Modern Famine

Most significantly, the famine situation we see now was foretold in Bible prophecy for this very time period since 1914. Consider what the prophet's vision at Revelation 6:4-8 describes:

"And [there] came forth, a fiery-colored horse, and to the one seated upon it there was granted to take peace away from the earth so that they should slaughter one another, and a great sword was given him. . . .

"And I saw, and, look! a black horse, and the one seated upon it had a pair of scales in his hand. And I heard a voice . . . say: 'A quart of wheat for a day's wage, and three quarts of barley for a day's wage; and do not harm the olive oil and the wine.' . . .

"And I saw, and, look! a pale horse, and the one seated upon it had the name Death. And Hades [the grave] was closely following him. And authority was given them over the fourth part of the earth, to kill with a long sword and with food shortage and with deadly plague and by the wild beasts of the earth."—"New World Translation," 1950 ed.

Is this not an accurate picture of how war, followed by famine and plague have ridden across the earth since 1914? But, it might be asked, has not this cycle of war followed by plague and famine always existed? The basic pattern is not new. But the scale of these conditions here described is out of the ordinary. The figurative phrase "the fourth part of the earth" shows that the Bible is referring to a large fraction of the whole earth. That has certainly been fulfilled, as never

- ***Watch the Pace at Which You Live.***
- ***Infant Feeding—What Is the Best Method?***
- ***I Grew Up as a Hindu.***

—In the next issue.

before, since 1914. But can we know *for sure* that those words in Revelation *definitely* apply since that date?

We are assisted in this by identifying the *first horseman*, concerning whom the Revelation says:

> "And I saw, and, look! a white horse; and the one seated upon it had a bow; and a crown was given him, and he went forth conquering and to complete his conquest."—Rev. 6:2.

Other texts, including those from Revelation itself (19:11-13), identify the one seated on the "white horse" as Jesus Christ. Since he was 'given a crown,' this account must refer to the time when Jesus would begin to rule as king over the earth. He would then, as it were, start to 'conquer' his enemies. To whom would he give attention first?

To his closest enemies, the invisible Satan and his demon angels. They were ousted from heaven to earth. The results were: *"Woe for the earth* . . . because the Devil has come down to you, having great anger, knowing he has a short period of time." (Rev. 12:12) What form of expression would this "woe" take?

This is revealed in answers that Jesus gave to his disciples. Interested in his future rule, they asked him: "What will be the sign of your presence and of the conclusion of the system of things?" Jesus then foretold visible evidences that would take place on earth to signify that he was 'present,' actually ruling from the heavens. Within the space of 'one generation,' he predicted, many things would occur before he completely destroyed this system of things. Notice what Jesus said was included in the evidence to be looked for:

"Nation will rise against nation and kingdom against kingdom, *and there will be food shortages* and earthquakes in one place after another. All these things are a beginning of pangs of distress."—Matt. 24:3, 7, 8, 34.

Jesus said that when he started to rule there would be war. The book of Revelation indicates that this would be *world* war, because it says that the second horseman with his "great sword" 'takes peace away from [not just a few nations, but] *the earth.*' The first such world war began in 1914. Afterward would come global food shortage and high food prices. Revelation shows that, not just the poor, but even the wealthy would feel the effects of limited food supplies. The prophecy warns them not to draw too heavily on their supplies of 'olive oil and wine.' (Rev. 6:5, 6) All of this is part of the "woe for the earth" clearly marking *our period since 1914* as the "time of the end" for this present corrupt system of things. —Rev. 12:12.

Proper Attitude When Suffering from Hunger

Those who live in areas where food may be restricted today can particularly see the reality of Jesus' words. Unfortunately, many of such people have become embittered by these conditions and turn from God. How much more discerning, though

is the person who sees in these events the fulfillment of God's Word!

God's true servants know from experience that he cares for all who genuinely 'seek first His kingdom.' (Matt. 6:33) This does not mean that God will never allow his own people to pass through temporary suffering, even hunger. Even the faithful Christian apostle Paul said that in his intense ministry he experienced "hunger and thirst." Yet he was confident that nothing, including hunger, could cause him to become separated from God's love in Christ. (2 Cor. 11:27; Rom. 8:35-39; Phil. 4:11-13) The apostle was sure, too, that even if God should allow him to die he had the promise of a resurrection.—Acts 24:15.

So, in our time, rather than give out because famine strikes, do as Jesus advised: "Raise yourselves erect." Why? "Because your deliverance is getting near." (Luke 21:28) Be assured that, since the part of God's Word predicting food shortages for our time is coming true, the rest of his promises will also become reality.

This means that God's new order is near at hand. After the King Jesus Christ completes his 'conquest' of the present wicked system of things, righteousness will prevail everywhere. No more will there be divisive nationalism, corrupt politics and selfish commercial elements to oppress the people. Under the kingdom of God, this earth will be made a delightful place in which to live. God promises that he will "wipe out every tear from their eyes, and death will be no more, neither will mourning nor outcry nor pain be anymore." Food shortage and malnutrition will become never-to-be-repeated things of the past. Man is not in position to bring such a thing about, but God is, and he has given his sure word of promise that he will do so. —Rev. 21:3-5; 16:14, 16.

Avoiding Excesses

It is not just impoverished people that need to keep a clear vision of God's new order. As recorded at Luke 21:34, 35, Jesus warned those who were *not* in extreme poverty: "Pay attention to yourselves that your hearts never become weighed down with *over*eating and heavy drinking and anxieties of life, and suddenly that day be instantly upon you as a snare. For it will come in upon all those dwelling upon the face of all the earth."

Therefore, those in 'rich nations' who, for now, still have more than a sufficiency of food, must be careful not to center their affections on material prosperity. Doing so would mean failure to appreciate the significance of our times. Rather, each person who would live in God's new system must learn now how to put Jehovah's worship first in his life.

Just think about it: a marvelous new order is near at hand. God himself, the Creator of heaven and earth, has promised that soon all earth's goodness, including the bountiful food it can supply, will be used for the benefit of all righteous men and to the glory of God. The present selfish world society, favoring a minority of well-fed people and slighting the needs of the majority of poor, hungry ones, will be gone forever. In its place Jehovah "will certainly make for all the peoples . . . a banquet of well-oiled dishes, a banquet of wine kept on the dregs, of well-oiled dishes filled with marrow, of wine kept on the dregs, filtered."—Isa. 25:6.

Does life under such conditions, in a world where righteousness controls, appeal to you? If so, now is the time to inform yourself about the prospects and to learn what is required in order to attain it. Jehovah's witnesses will be glad to assist you, free of charge. Invite them to visit you, at a convenient time, to discuss these prospects.

The Flooding Mississippi UPSETS AMERICA'S BREADBASKET

ONE of the major floods of American history has struck the Mississippi River and its tributaries.

For the Mississippi to reach flood stage at springtime is not unusual. Its system of tributaries drains the vast, well-watered, fertile plains stretching all the way from the Rocky Mountains to the Appalachian range. Nevertheless, this year's flood is different, seriously different.

It has completely upset what might be called 'the breadbasket of America.' Large quantities of grain, vegetables, meat and dairy products have poured from this region for generations. The year 1973 was earlier predicted to be the largest harvest year in its history.

But not now. How did it happen? What exactly does it mean for you?

Cause of the Flood

A peculiar weather pattern set the river on its record-breaking swell. Starting last October, a superabundance of rain showered down on the U.S. south and midwest.

In March the state of Mississippi alone registered a 218-percent increase in rainfall over the same month a year earlier. Memphis, Tennessee, had rain on 65 of the first 106 days of the year.

The Mississippi River slowly rose and reached record heights in several places. In April it broke a two-hundred-year-old record at St. Louis when it crested at over forty-three feet.

But not just size made this year's flood different. A spokesman for the U.S. Army Corps of Engineers says: "This year's flood has given us a long sustained high water period rather than a quick peak and fall." Damage during this long flooding has been widespread.

Extent of the Immediate Damage

In place after place along the river and its tributaries homes and farm buildings were totally covered with floodwaters. Earth-mound levees and dikes washed away. Whole cities—like Cairo, Illinois—looked like islands set apart by a sea of rolling muddy water. Understandably, one veteran of many Mississippi rampages calls the 1973 flood "the granddaddy of them all."

So far, property damage from the flood has been calculated to be at least 500 million dollars. Over twenty persons have died, some 35,000 have been driven from their homes. Figures as to how much land was actually inundated vary from eleven to over twenty million acres.

What is surprising is that the huge amounts of water did not cause more damage than they did. Why was this?

Why Damage Was Not Greater

The Mississippi flood-control system constructed by the U.S. Army Corps of Engineers' Mississippi River Commission functioned well, apparently without a sin-

gle break. In May, a Commission spokesman estimated that damage without the project would have been *fourteen times as great.*

This 2,000-mile-long flood-control system was begun along the Mississippi after the record flood of 1927, in which over 300 persons perished. It has cost over one million dollars per mile to construct. When the Mississippi River outgrows its normal banks this system keeps the river within a man-made channel.

However, the 1973 success of the flood-control network also seems to have created at least part of the flooding, but in other areas. The Mississippi became so full of water that no more could pour into it. Water, as a consequence, backed up along the tributaries. State, county and private levees, unable to handle the overload, broke and flooded the surrounding land.

Of course, the federal levee system would not have functioned without hard-working people to take care of it. They, too, helped to keep damage down. Holes in the system, for example, had to be plugged in emergency measures. Near the small town of Nairn, Louisiana, work crews braced a weakening levee by dumping more than 300 junked automobiles and thousands of tons of rock into it.

Volunteers all along the river and its tributaries also responded to countless calls to fill millions of sandbags for temporary dikes restraining the water. Other volunteers, young and old, labored long hours, often without food or sleep, alongside National Guardsmen and Marines in rescue operations or trying to save homes or prominent buildings from the water.

Many lives were also spared because of orderly evacuations of people from endangered areas. In addition to caring for their own families, elders in the congregations of Jehovah's witnesses saw to it that fellow Witnesses were safe.

Thus, at Morgan City, Louisiana, it was learned that nearby floodgates might be opened to release pressure on a weak dam, flooding the basin where they lived. The presiding overseer tells what action the elders took:

> "About two weeks before the gates were opened, the elders, anticipating this possibility, met with their assistants and other concerned brothers to discuss evacuation plans and made transportation assignments for the nearly one-third of the congregation that did not have automobiles. Each neighborhood study conductor and his assistant were to aid those in their own group to evacuate."

On Tuesday morning, April 17, the floodgates were opened. Rains had also started again the day before. Flash flooding occurred all over Morgan City. The congregation went ahead with the celebration of the Lord's Evening Meal after 6 p.m. But thereafter, they executed their evacuation plans.

Most of the Witnesses were then cared for in the homes of members of the nearby Lafayette congregation. Baton Rouge congregations sent financial aid to Lafayette to help with expenses.

All along the Mississippi, volunteers filled sandbags to hold back floodwaters from homes and other important buildings

Among the most devastating damage caused by the flood was the upset to farmland. This damage will have long-range consequences.

Long-Range Effects on America's Breadbasket

So serious is the situation that the Memphis (Tennessee) *Press-Scimitar* says: "Agriculture officials . . . warn of crop famine possibilities."

The rains and flooding dealt farmers a 'double-barreled' blow. Last fall's rain meant that the harvest could not be completed. Now, this year, farmers have been too busy fighting the water to plant crops.

Just how much yield will the farmer get this year? The precise amount, of course, remains to be seen. Yet, consider:

Corn should be planted during May. But fields were still under several feet of water at mid-month. Only about one percent of Missouri's corn was in the ground in early May. An observer says: "It is a frightening thing to drive by field after field of the richest bottomland in the United States and see nothing but corn stobs from last year sticking out of either the water or soggy fields."

Each day that the planting is delayed the amount of the yield is greatly reduced. Further, because of the delay, many farmers resort to rapid-growing 'short-term' corn, which usually yields less per acre than the full-season variety.

Other field crops will also suffer. Rice production in Arkansas, the leading rice state, will no doubt be sharply curtailed. Sugarcane production will be down.

Many acres of cotton have also been affected. Most people think of cotton as only a clothing crop, but, of each 1,500 pounds of picked cotton, approximately 1,000 pounds is food for human use or for livestock. From the 1,000 pounds of seed come cotton-seed oil, cotton-seed meal or cake and cotton-seed hulls. Noted the Arkansas *Democrat:* "Rain May Be Fall of King Cotton. Federal officials predict that new rainfall in the flooded Mississippi Valley could mean the death knell for cotton crops on the inundated farms of Mississippi and Louisiana."

Many farmers plan to replace their regular crops with soybeans. These can be planted later in the season and draw high prices. Yet, the president of the American Soybean Association warns that overplanting could result in a sudden drop in soybeans' market price, in which case the farmers would get reduced returns.

At the same time the American National Cattleman's Association estimates that 250,000 head of mature cattle have been killed by the Mississippi flooding or in unseasonable snowstorms elsewhere in the United States. Hog production is also off because of muddy fields.

To further complicate matters, the raging Mississippi has kept fertilizer shipments from reaching farmers. The fertilizer shortage, says Missouri agronomist P. G. Stryker, is "frustrating already frustrated farmers."

Then there is the gasoline shortage. Petroleum suppliers say there may be a sudden rush on existing fuel supplies in farm areas as the flood starts to dry out, creating what one agricultural official calls a "real crunch."

All these problems, brought on or aggravated by the flooding Mississippi, add up to smaller incomes for the farmer. Many small farmers who have been struggling to get by with a marginal operation may be wiped out.

Says agricultural writer Keith L. Wilkey in the Quincy (Illinois) *Herald-Whig:*

> "Few times, if ever, in the history of U.S. agriculture have farmers gone to the field in the spring confronted by so many imponderables . . . Cataclysmic forces bear down on the farmer from all sides in the same hours

that saw one of the wettest springs in history . . . There are always a lot of 'ifs' in farming. But few farmers can recall when there was ever as many as this year and surely none can say they recall the issues as being as momentous."—May 1, 1973.

And, certainly, if the farmer is affected, you the consumer will be. Shorter supply will mean even higher food prices later in the year. A shortage of grain will mean higher costs for bakery products. But it also spells higher prices for beef and other grain-fed stock. Other losses suffered by the farmer will be reflected in your food bill.

Thus the flooding Mississippi has done more than temporarily upset the lives of people in America's richest food-producing region. It has contributed to the growing specter of food shortage and higher prices facing people world wide.

HOW LONG Could You Survive IN DEEP WATER?

THE National Safety Council estimates that fully one half of the American population would drown if they were pushed one at a time off the deep end of an ordinary swimming pool.

A study at the University of Georgia by Bramwell Gabrielsen disclosed that 71 percent of drowning victims were non-swimmers; 22 percent were rated fair at swimming. Only 1 percent were rated as excellent swimmers.

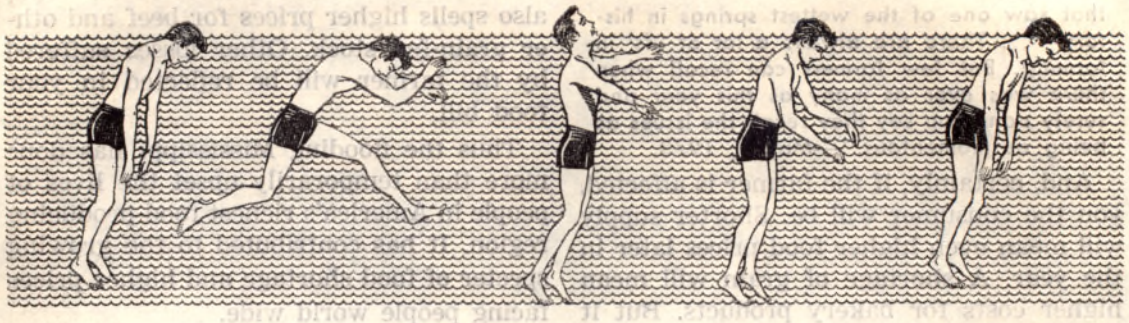
Although these studies and estimates indicate that your chances of survival are much better if you can swim, yet many swimming coaches doubt that ordinary recreational swimming alone is enough for water survival where distance, rough water, heavy clothing or other difficult circumstances might confront the swimmer. An interesting system for survival was originated by the head swimming coach at the Georgia Institute of Technology, Fred R. Lanoue. Professor Lanoue called his system "drown proofing."

The Principle of the Technique

The drown-proofing technique is based on the idea that you will fare better in a relaxed upright position just under the water's surface, coming up only when you must inhale. The basic fact to grasp is that the average human body, even when clothed, tends to float or nearly float.

Picture this: You know that a wooden canoe paddle will float. Now if you fasten enough weight to the blade end to offset very nearly the paddle's ability to float, what happens? The blade then sinks straight down, pulling the paddle under water. But the unweighted end soon bobs back to the surface. The paddle does not sink; it still floats, but mostly underwater.

Now picture yourself in place of the paddle. Your body will bob along about like the paddle as long as your lungs are free of water. With air in them, your lungs are a natural life preserver. Beginning with this physical fact, Professor Lanoue



reasoned that a good way to survive for a long time in water is to manipulate oneself so that one surfaces just enough to breathe, and then coming out of the water just high enough to inhale.

Thus the principle of drown proofing boils down to a matter of relaxing under water in a more or less upright position. Once the principle is applied, even a child five years old can survive in deep water for hours. Persons have bobbed in rough ocean water for twelve hours, and "walked" their way along in the water a distance of twenty miles!

However, this survival method requires practice if it is actually to save your life in an emergency. In view of the fact that some 7,000 persons drown each year in just the United States and Canada, would it not be wise for you and your family to know how to survive in deep water?

Learning the Technique

In learning the drown-proofing technique, the first thing to abandon is the urge to keep your head above water. The idea is to drop your head forward in the water and let your body hang *vertically,* not in the regular horizontal swimming position. Let your arms hang limply from the shoulders. Hang like a rag in the water.

Do not worry; most people will not sink. Your body will float in the water with only the back of your head above the surface. By hanging there, feet down, you are letting the water do the work of supporting you, and you are conserving your energy.

However, since in this position your nose and mouth are under water, what can you do when you need air after fifteen seconds or so?

Bring your arms up in a relaxed and easy manner, crossing them in front of your head. Also, in the same easy manner lift one leg toward your chest and extend it forward while at the same time you extend the other leg backward. Now raise your head, exhaling through your nose. To keep your head above water long enough for you also to inhale, bring your feet together in a scissors kick, and in an easy movement sweep your crossed arms outward. You want the movement of your arms and legs to be sufficient so that you can get a good breath of air, but not so much that it brings your shoulders out of the water.

As soon as you have taken in air, drop your head in the water again, face down, and bring your arms to your sides. Rest with your body completely relaxed. However, do not hang there in the water until your lungs feel as if they are bursting for air, but come up for air again before you feel an urgent need for it.

By alternately resting and coming up for air in the manner described, you may find that you can stay in the water for quite a long time without becoming fatigued. The advantage is that you are not

using up your strength by continuous body movements. Rather, most of the time you are actually resting.

Also, by a slight adjustment in your kick and your hand stroke you will find that you can move forward in the water a couple of feet or so with each emergence for a breath of air. Thus you can cover, in time, a long distance without tiring. Of course, in order for this drown-proofing technique to be effective, you will have to spend time practicing it.

With a knowledge of how to survive a long time in deep water, it is unlikely that you will ever drown. But in most instances if precautions are taken, there is no need to get into a situation where there is a danger of drowning.

So take precautions. Reflect on this sobering fact: Drownings are the second-most-common cause of accidental deaths in the United States. Surely this is good reason for knowing how to survive in deep water.

An Unexpected Blessing from Maintaining Self-Control

SELF-CONTROL is a fruitage of God's spirit. (Gal. 5:22, 23) Maintaining it under very unpleasant circumstances can make a favorable impression upon observers and may even move them to get to know the Source of this commendable quality. This was the experience of one of Jehovah's Christian witnesses in California. He relates:

"I awoke early this one morning. Since it was a holiday and I didn't have to work, I decided to take a walk around the block. As I turned the corner by my new neighbor's house, I noticed him standing in the yard. Having previously made his acquaintance, I raised my arm and said, 'Good morning, Don, how are you today?'

"Before he could answer, a long dark streak came charging through the yard and over the fence and started biting me fiercely on the legs. Instinct caused me to put my arms up to protect my face. Immediately Don was at my side. The long dark streak turned out to be his female Doberman pinscher. She mistakenly took my gesture of greeting as signaling an attack upon Don. Before he could quiet her down and get her off me, she had taken quite a few bites and torn my trousers in the process.

"Naturally I was shaken up over the ordeal and so was Don. But here is where the quality of self-control came into view. Instead of blowing up over the incident, I found myself comforting Don and explaining to him that the dog was only acting to protect her master from seeming harm. After establishing that the dog was fully inoculated against rabies, I painfully made my way home, where I immediately contacted a doctor who dressed my wounds and gave me a tetanus shot.

"Shortly thereafter a knock was heard at my door. Upon answering it, I found Don standing there. I invited him in, and he inquired as to how I felt after the doctor's visit, and so forth. After casual conversation, he said: 'I suppose you'll want to have my dog destroyed or perhaps you'll get your gun and shoot her yourself.' Again I convinced him that I had no malice toward him or his dog. He was overwhelmed. He couldn't believe that I had such self-control and wouldn't repay injury for injury. I calmly explained to him that as one of Jehovah's witnesses I cultivated the qualities of God's spirit and that it was only through study and putting into practice what I learned that I was able to display self-control in this incident.

"A few days later my wife called on this neighbor and left the *Watchtower* and *Awake!* magazines with Don's wife Mary. Shortly thereafter a Bible study was started with the family. Don remarked over and over again that any man who could control himself under such adverse conditions must have something going for him."

What has been the result from all this? Now, as baptized witnesses of Jehovah, Don and Mary also appreciate that displaying the quality of self-control is vital for the Christian.

WATCHTOWER FARM
—Unique in Many Ways

THERE are many farms—some three million in the United States. And in Africa and Asia about two thirds of the people are farmers. Yet it can truthfully be said, that, of all these millions, Watchtower Farm is outstandingly unique.

Location does not make it so. Situated about a hundred miles north of New York city, Watchtower Farm lies in a fertile farming area. And its size—1,700 acres—although larger than the average American farm of about 320 acres, is small compared to many.

Also, Watchtower Farm's fine dairy herd of some 200 Holstein milk cows and heifers is not in itself unusual. Nor is its excellent beef herd of 900 Hereford, Holstein, Angus and Charolais. Neither are its 500 hogs, 3,400 laying hens and 5,000 fryers in themselves unusual. Many modern dairy, beef, hog and chicken farms are much larger in size.

Unique in Diversity

Yet in these days of specialization, is not this diversification unique? True, small farms often have quite a variety of animals. But do you know of another farm that raises such large numbers of different livestock? Watchtower Farm even has fifty hives of bees that provide honey and pollinate crops.

The diversification extends to the crops as well. Seven hundred acres are in field crops, particularly wheat, oats and corn. Another hundred acres grow *thirty-five* different kinds of vegetables. Still another 200 acres are in woods, and the rest of the land is used principally for pasture, feed pens, barns and other buildings.

Unique in Self-Sufficiency

Watchtower Farm is also unique in its ability to care for its own needs. Few large farms process their own milk, make their own milk products, slaughter their own animals or formulate their own livestock feed. Yet this one does!

Watchtower Farm homogenizes and pasturizes its milk, has a sizable butter and cheese plant, a modern slaughterhouse, a feed mill that grinds and mixes the livestock feed, and a series of grain bins with a storage capacity of 60,000 bushels of various feeds. Also, it has a modern cannery that quick-freezes a hundred thousand quarts of vegetables each year, besides canning tens of thousands of quarts of various fruits and jellies. And, too, there is a large greenhouse in which are grown not only plants for the gardens, but also lettuce and tomatoes in the wintertime and flowers to beautify the farm.

Still more? Yes, it has a modern repair shop, equipped to keep all the farm machinery in good shape. It also has a sawmill that produces lumber for construction of fences, sheds and other such farm structures. To assure a pure water supply the farm has its own water purification plant; and to prevent pollution of the environment, there is a recently completed modern sewage disposal plant.

Watchtower Farm even has its own shale pit and crusher that produce thousands of tons of crushed shale annually,

used in building roads, making parking lots and as a base for other concrete construction. Available, too, are large diesels that will generate the farm's own electricity should the commercial power source fail. Important too, the farm has its own fire engine.

Is it any wonder that Watchtower Farm has been compared to a modern city, rather than simply a farm? But why is this farm so different? What is its purpose?

Established for a Unique Purpose

The purpose of most large farms is to make money for their owners. But Watchtower Farm was started back in 1963 for an entirely different purpose. Commenting on this, the New York *Times* earlier this year said: "It is a veritable land of plenty —in everything but profit, for not an ounce is ever sold."

'But, how can that be?' you may ask. How is it possible for a farm 'not to sell an ounce' when it produces each year 80,000 gallons of milk, 50,000 pounds of cheese, 60,000 dozen eggs, and over 300,000 pounds of beef, pork and chicken? Who uses all this food?

The large Christian family associated with the world headquarters of Jehovah's witnesses does. Some 375 members of this family work at Watchtower Farm, and about 1,350 more of them live in Brooklyn, New York. At factories in Brooklyn, Bible literature is produced, including, *each day,* 100,000 Bibles and books, and more than three quarters of a million *Watchtower* and *Awake!* magazines. The purpose of this literature is to direct attention to God's kingdom, the good news that Jesus Christ foretold would be preached in all the inhabited earth before the end of this system.—Matt. 24:14.

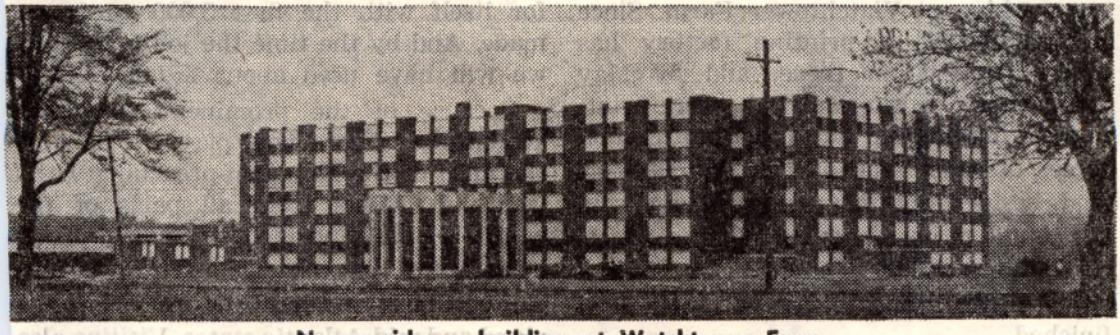
So, then, the unique purpose of Watchtower Farm is to assist in the fulfillment of this Bible prophecy by providing food at reduced cost for the huge headquarters family working to produce this literature. It is basically as the New York *Times* reported: "The function of the farm: economy in the name of higher spiritual purposes." And the economy is considerable.

George Couch, who shares in headquarters management, estimates that it costs only 30 cents per meal to feed the headquarters family. "We serve about 2 million meals a year," Couch explained. "And when we divide the $350,000 a year that it takes to operate the farm along with kitchen expenses by the number of meals served, we arrive at the 30-cent figure."

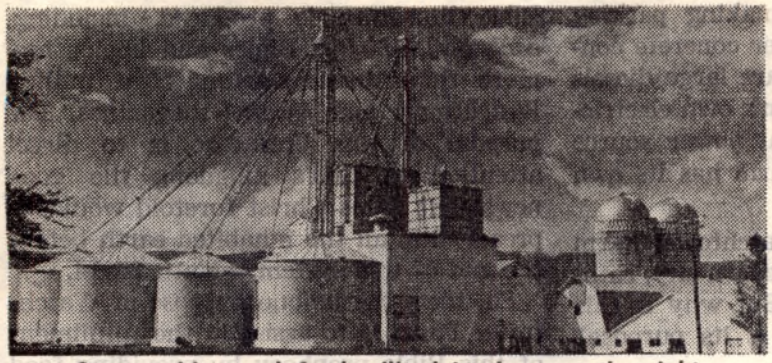
Is it unbelievable to you that excellent meals can be provided these days at such a low cost? Another unique feature about the farm makes it possible.

Volunteer Work Force

This feature is that none of the 1,725 members of the headquarters family, in-



New residence building at Watchtower Farm



Storage bins and feed mill; dairy barn at the right

cluding the ninety-six farm workers, receive a commercial salary. One and all receive board and room and $14 a month for incidental expenses. But since all are Christian ministers who are sincerely interested in seeing the good news of God's kingdom preached in all the inhabited earth, each is happy for the assignment of work he has.

This is reflected in the fine work the farmers do, as noted by a neighboring elderly farm couple who said: "All our lives we've lived in this area and we want to say that it's just wonderful what you folks are doing with the land. My wife and I always slow down when we drive past your farm and we just can't help wondering at all the young men you have working on it. It's so unusual, for it seems that today you just can't keep young folks on the farm."

But there are many others besides farmers working at Watchtower Farm. Since February 1973 a printing factory has been in operation there, and by May twenty-three workers already were printing and mailing out one and a half million copies of each issue of *The Watchtower!* And, besides, another printing plant is in the course of construction. When completed this one will have eight acres of floor space; already one section of it has been finished.

So, for many months, the majority of the volunteer work force at Watchtower Farm has been involved in construction of these factories and the recently completed six-floor residence building. Some 250 persons are presently sharing in the construction. These have come from every state in the continental United States. They include a registered architect and civil, electrical and other sorts of engineers.

Construction superintendent Walter Ludke, a forty-five-year-old family man, observed: "Among the older workers are a dozen couples who are grandparents, and even a couple who are great-grandparents. At one time one of the grandfathers was working alongside his grandson. We have many talented youths here who are eager to learn and willing to work hard."

A tremendous quantity of concrete is required for this construction. Since outside suppliers could not guarantee a sufficient quantity when needed, a concrete mixing plant was purchased and was erected by the volunteer workers. Max Larson, who shares in construction oversight, noted: "This plant has resulted in a 50-percent saving in every yard of concrete we use. And so the $50,000 plant paid for itself with the first 5,000 yards we made. And by the time the job is finished we will have used about 25,000 yards."

Because of the prominent part that Watchtower Farm now plays in the furtherance of the Kingdom-preaching world wide, Christians from all parts of the world regularly visit it, including planeloads from the western and midwestern United States and busloads from New England and mid-Atlantic states. Visiting also

are newspapermen, farmers and members of neighboring youth day camps and 4-H clubs. All told, some 15,000 persons visited the farm last year.

Modern Efficient Methods

Visitors usually are impressed by the size and efficiency of the farm operation. For example, there are two flocks of some 1,700 laying hens each that are kept in a long, two-section poultry shed. Here all the feeding and watering are done by automation. The shed has a floor of slats with pits underneath for the droppings. Thus it needs to be cleaned only once a year, a front-end loader being employed for this.

After the hens of one flock have laid eggs for a year, the period of their greatest productivity, they are butchered and replaced by another flock ready to lay. One flock is replaced in the spring and the other in the fall, thus keeping production quite uniform. Laying nests are slanted so that the eggs roll forward into a covered tray, which makes for easy gathering. One of those who cares for the chickens is Fred Eckley, a ninety-three-year-old minister.

Examining some of the large beef herd

Very efficient, too, is the operation of the dairy. The one hundred Holsteins pass through a modern milking parlor where they are milked in about an hour and forty-five minutes, twice a day. The milk is piped from the milking machines through glass tubing directly to a 2,000-gallon cooling tank. From there it is fed into a clarification machine, after which it is heated to 139° F. before homogenizing, and at least momentarily to 162.8° F. for pasturizing. It is then stored at 40° F. until shipped to Brooklyn in ten-gallon stainless-steel cans.

Efficient methods are also employed in this the largest beef operation in southern New York State. Each year hundreds of animals are fattened and butchered. The Hereford, Angus and Charolais breeds are confined to feed lots and provided with corn silage, grain supplement and a small amount of hay. "In sixteen to twenty months the heifers finish off at around 950 pounds and the steers at between 1,000 and 1,100 pounds," Lon Schilling, thirty-three-year-old manager of the beef herd, noted. "Crossbreeding is highly favored," he added, "resulting in larger, faster-growing steers and heifers."

But of particular interest is the relatively new feed program that has been successfully instituted. "Because of our dairy operation," Schilling explained, "we have available many Holstein steers that we now raise for beef. At four to five weeks they are weaned from milk, and each calf is gradually changed over to all the dry whole shelled corn it can eat and a daily pound and a half of protein mineral supplement—*and that is all!* The Holstein breed has been discovered to

be unique in that it can rapidly convert this high-energy feed to meat, reaching slaughtering weight of about 1,000 pounds in only eleven months."

Modern efficient methods are also in evidence in the temperature-controlled hog house. "Our operation is set up so that we butcher thirty hogs every other week, or sixty a month," Gordon Trout, caretaker of the hogs, observed. "We keep our hogs separated into four basic weight groups," he continued. "The first group includes piglets up to four weeks; the second, pigs from four weeks until they reach 50 pounds; the third, pigs from 50 to 100 pounds; and the fourth group, pigs from 100 to 200 pounds. They reach 200 pounds in five to six months, at which time they are ready to be butchered."

The Water Purification Plant

On an average day Watchtower Farm consumes 35,000 gallons of water. To supply this need a reservoir was excavated holding about 18 million gallons, sufficient for over a year's supply. The reservoir fills with rainwater from an adjoining woods. To make this water fit to drink, a plant was constructed capable of purifying 100,000 gallons a day.

This purification plant consists of a series of tanks in which chemicals are added, such as alum, to coagulate the impurities, and chlorine, which acts as a germicide. By the time the water reaches the last tank or "clear well" it is fit to drink. The water is then pumped up to the 139-foot-high, 40,000-gallon water tower, from where it is gravity-fed to the barns, residences and other buildings of the complex.

Sewage Disposal Plant

Important also is getting rid of sewage wastes. On Watchtower Farm this presents quite a problem because of its quantity and variety. Besides the wastes from 350 people, there are blood from the slaughterhouse, and wastes from the cheese house, laundry, dairy, kitchen and cannery. At the disposal plant the sewage is first screened before going to a tank where preliminary mixing occurs.

From there the sewage is pumped to an aeration tank containing waste-eating bacteria of the aerobic type. This kind of bacteria depends upon oxygen to live, the process being practically odorless. Oxygen is fed into the tank and the bacteria rapidly multiply.

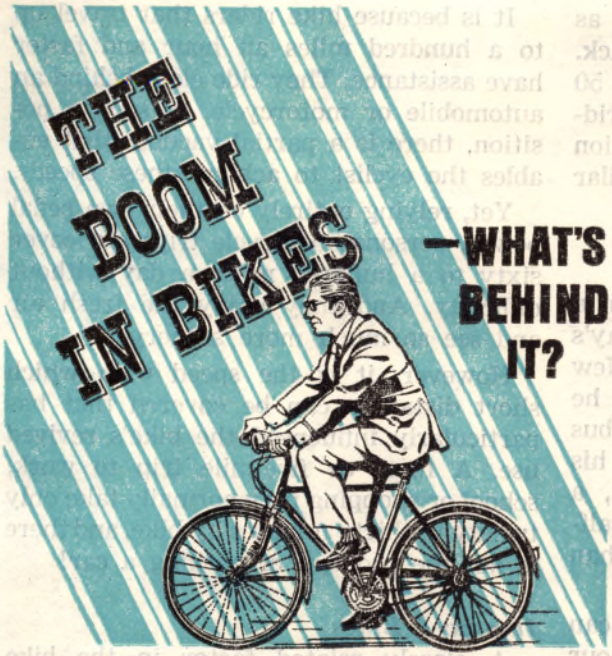
After that the "effluent," as it is called, goes to a settling tank where the solids settle to the bottom as sludge. The clear water above the sludge goes to a tank where chlorine is added to kill the bacteria, after which it enters the Shawangunk River, chemically fit to drink. The sludge is pumped into a sludge digester, and from there it goes into the sludge chamber. It remains in this chamber until pumped into a liquid manure spreader, which first makes a furrow for the sludge and then covers it over.

Truly a Unique Enterprise

It is no wonder that visitors are amazed by what they see at Watchtower Farm. Clearly it is no ordinary farm. Its diversification of livestock and crops, its self-sufficiency in caring for its needs, its dedicated volunteer work force, and its purpose of expediting the preaching of the good news of God's kingdom in all the inhabited earth in fulfillment of Jesus' prophecy—all these things truly make Watchtower Farm unique.

Why not plan a visit to the farm on some weekday and see it for yourself? Perhaps you, too, will then voice the sentiments of one of the workers, who said: "I marvel at what is taking place here. It truly is a manifestation of God's holy spirit."

THE BOOM IN BIKES —WHAT'S BEHIND IT?



BIKE riders—rarely seen in many American cities a few years ago—are now a common sight. Bike routes have been established in Boston, Chicago, San Francisco, Miami, and many other major cities.

Last summer some 6,000 persons regularly rode bikes to work in Washington, D.C. Many do the same in New York city. The bike has become so popular that on weekends and holidays automobiles are banned in New York's famed Central Park during daylight hours, and droves of cyclists take over the roads.

Demand Outpacing the Supply

In 1960, 3.7 million bikes were sold in the United States. By 1971 sales had more than doubled, zooming to 8.9 million, with a value of $500 million.

If the estimated sales for 1972 of 11.5 million bikes proved correct, bikes outsold automobiles in the United States for the first time since 1897! And regarding the present year, Jerry Sircus, president of a major bike manufacturing company, predicts: "Things are going to boom even bigger in '73." The situation is similar in Japan. This year's bike output is expected to hit 8 million, up from 5 million in 1970.

It has been a real problem to meet the United States public's demand for bikes. During 1971, dealers had to import nearly two million bikes in an effort to meet demands. A Washington, D.C., bike retailer exclaimed late in 1971: "The market has literally gone wild. By June of this year, we had sold the same number of bikes that we had sold by December of last year. We have 50 customers for every one bike available."

What is behind the phenomenal boom in bikes? Will it last?

Important Mode of Transportation

Many would like to see it last. Bicycles, they feel, are a valuable mode of transportation. United States Secretary of Transportation John Volpe, for example, said: "I don't consider bicycles a gimmick or a fad. As far as I am concerned, . . . bicycles have equal rights with automobiles on our city streets."

Actually, bicycles have long been an important means of transportation in many places. In Peking, China, for instance, there are reportedly 1.5 million bikes! In Ireland bicycles are so common that it is not unusual to see the husband riding a bicycle with his wife on the handlebars!

In many European cities bikes vie with automobiles during rush hours. But rather than a boom in bikes, in certain places in Europe fewer people seem to use them than did so a few years ago. Many persons now drive automobiles instead.

In the United States, however, where

the automobile has for decades ruled as king, the bike is staging a comeback. Americans reportedly own more than 50 million bikes, and the number of bike riders is said to have doubled to 80 million in the last decade. The situation is similar in Canada. Why this bike revival?

Speed a Factor

One reason is that the bike is often a faster means of transportation in today's traffic-clogged cities. A bike-riding New York theatrical producer says that he regularly makes better time than the bus from his Greenwich Village home to his midtown office. In Washington, D.C., a bicyclist easily covered a four-and-a-half-mile route used by commuters faster than either a bus or a car.

With little effort a normal person can move along at ten to twelve miles an hour on a bike. Good riders can travel much faster. There has been some confusion, however, as to how fast the bike really is. For example, the New York *Times*, reporting on a 200-mile bicycle marathon in Central Park, observed:

> "The starters included 6-year-old Pamela Singer . . . and Alfred (Red Devil) LeTourneur, the great six-day bike racer of the nineteen-twenties and nineteen-thirties. He set a world speed record in 1941, at Bakersfield, Calif., by pedaling 108.92 miles an hour."

However, that fantastic record was broken in 1951 by José Miefret of France. He traveled the fastest mile on a bicycle, going 109.12 miles an hour. That would mean he covered the mile in 33 seconds! Does that seem unbelievable to you?

It may, particularly if you have read in a reputable source that the bicycle record for one mile from a standing start is two minutes and six tenths of a second. And that is traveling, on the average, only about thirty miles an hour. Why the discrepancy?

It is because bike riders that travel up to a hundred miles an hour and faster have assistance. They ride close behind an automobile or motorcycle. In such a position, there is a partial vacuum that enables the cyclist to achieve these speeds.

Yet, relying entirely on their own pedal power, persons on bicycle trips can cover sixty to a hundred miles a day without difficulty. And they enjoy the fresh air and see so much more scenery.

However, it is the speed with which short distances can be covered that has particularly influenced the bike's revived use. A four- or five-mile trip to work, school or shopping may normally take only twenty to thirty minutes by bike, and there is not the problem of parking a car!

Improved Bikes

A closely related factor in the bike boom is the development of new lightweight, multigeared bikes. These commonly have ten gears; others have as many as fifteen, but some have as few as five. They weigh only about twenty to thirty pounds, and cost from $85 up to $400 and more—the more expensive ones being the lightest. These bikes make the steepest grades easy to climb.

Before 1969 about 85 percent of the bikes sold were traditional children's bikes. However, by 1971 some 25 percent of the sales were adult lightweights, and last year these represented half of all bikes sold.

A service and promotion manager for a leading bike manufacturer said late in 1971: "I think what surprised us was the large percentage of 10-speed adult bikes we've been called upon to make this year and the swiftness with which the demand for them arose. At this time last year, no one could have imagined the demand for them."

Health and the Environment

Another factor in the bike's renewed popularity is the awakened interest in physical fitness. Western countries are experiencing an epidemic in heart and blood vessel diseases, and bicycling is recognized as one of the best exercises for the heart. Thus some doctors recommend bike riding.

The noted cardiologist Dr. Paul Dudley White observed: "As bipeds we need something to help us keep the blood circulating up from the lower part of the body. The leg muscles used in bicycling are very important. When they contract, they squeeze the veins and actually pump blood toward the heart."

Concern for the environment is yet another factor in the bike boom. Unlike automobiles, bikes emit no fumes, nor do they blacken roads with gas or oil leakage. Thus certain schoolyards are noted to be packed with bicycles, since youths especially are pollution conscious.

A Related Boom

The boom in bikes has, unfortunately, touched off another boom—in bike thefts. "It's a problem that's been growing at a tremendous rate and there's no end in sight," observed Tom B. Golithan, a Concord, California, police sergeant. "In 1970, we had 92,000 stolen bicycles [in the state] with a value of $5.5 million. In 1971, there were 500,000 stolen, and the value was close to $30 million."

The problem, however, is not confined to California. It is nation wide and is growing. A survey of a dozen major cities by the New York *Times* revealed that for about the first half of 1972 thefts were up, on an average, more than 35 percent!

The greater value of new bikes has resulted in a monstrous business, as Sergeant Golithan explains: "You have organized groups that sweep through a city, fill a truck full of stolen bikes, and take them to a factory where they sandblast them, take off the paint and serial numbers, repaint them, and send them out as new bikes. There was one group here in the City of Concord that took between 400 and 500 10-speeds in one year."

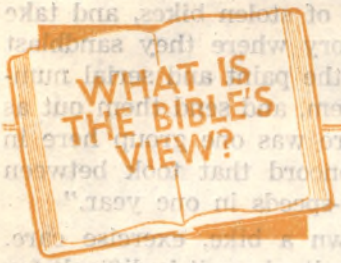
So, if you own a bike, exercise care. Do not just park it where it is difficult for a thief to take it without being seen; be wise and chain and lock your bike to some immovable object when you leave it.

Need for Caution

Associated, too, with the boom in bikes has been an increase in bike accidents. In 1971 there were 850 bike deaths and 40,000 injuries in the United States. Significantly, more than 60 percent of those killed and 75 percent of the injured were children five to fourteen years of age. Thus a recent study of the National Transportation Safety Board concluded that most children "are not receiving sufficient instruction to insure that they can operate their bicycles for their own safety."

Parents should not conclude that simply instructing their children to ride a bike well is sufficient. More is involved, as an Ohio police lieutenant said: "If we could get across to the children and parents that they must obey traffic laws when they're on their bicycles, we could cut injuries in half." So obey traffic laws and, if you have children, teach them to do the same.

Enjoy the benefits of bicycling, and avoid the dangers. Watch for car doors opening ahead. Dodge storm drains and sewer gratings that could trap your front wheel and throw you. Ride with the traffic, never against it. Equip your bike with reflectors for night riding. Be alert. Be courteous. When caution is exercised, bicycling can be such a pleasure, such a fine way to get to places. No wonder there has been a boom in bikes.



Why Are Some Born Handicapped?

LITTLE Karen, four years old, was dying of leukemia. This was a severe blow to her parents. They had been going to the Roman Catholic Church regularly, but now they had stopped, because, as they put it, "you wonder when you've tried to lead a good life why this happens to you."—New York *Times*, February 2, 1973.

Karen had been born handicapped, although it took three years before this became manifest. In the United States four out of every one hundred babies are born with an obvious handicap, being hunchbacked, crippled or blind, or with heart or brain defects. By the time infants are one year old more defects become apparent, so that the number has increased to seven out of a hundred. Why do such things happen? Who is to blame? What can be done about it?

In Bible times some were born handicapped. The apostles Peter and John miraculously healed a man who was "lame from his mother's womb." (Acts 3:1-10) Jesus Christ restored sight to a man born blind. His disciples had asked him if the blindness was due to the sins of his parents or because of his own sins. Apparently Jesus' disciples believed, as some rabbis do, that a person can sin in his mother's womb before birth. Jesus replied that the man's blindness was not due to any sins on his part or on the part of his parents but was so "that the works of God might be made manifest in his case." Not that God caused the blindness in the first place. Rather, the man's blindness furnished an opportunity to make manifest the works of God.—John 9:1-7; Rom. 5:12.

Quite likely that man was born blind because of some chromosomal failure or genetic defect, even as was little Karen. Thus, if parents have a serious heart defect, the risks are from 21 to 37 times as great as they would otherwise be, that their children will have a similar defect. Also, a man who has hemophilia will transmit this genetic defect to his grandsons through his daughters. In all such instances the parents cannot be blamed, as they have no control over the matter.

Then, again, due to ignorance a mother may cause her child to be born deformed. This was the case with the pregnant women who, during the early stages of their pregnancies, took sleeping pills containing thalidomide, a synthetic drug. Termed "one of the greatest medical tragedies in history," this drug caused 12,000 women in many different lands to give birth to deformed babies, one half of which were so deformed that they were either born dead or lived but a few hours or a few days.

Of the six thousand 'thalidomide babies' that survived, from one third to one half were born with limbs missing or with deformed limbs. The lifetime care of each of these handicapped children has been estimated at $250,000. Certainly God cannot be blamed for these things that humans do, can he?

In the case of the 'thalidomide babies,' the courts ruled that the drug companies rather than the mothers were to blame. But there are ever so many handicaps for which the parents, and in particular the mother, may be

to blame. For example, many infants are born with defects because their mothers acquired a venereal disease. By their indulging in loose conduct either before or after marriage the parents gave their children a handicapped inheritance. Pregnant women who smoke cigarettes increase the risk that their babies will be born dead or stunted. There has also been found to be a relationship between aspirin and birth defects. Even undue efforts to keep her weight down may cause a pregnant woman to harm her unborn child.

That in some cases the blame for a child's handicap must rest upon the mother is seen from a recent report on the effect of incest. The Bible strongly condemns incest. The law of Moses provided the death penalty for incest. (Lev. 18:8-17) Thus a Czechoslovakian medical researcher made comparisons between the offspring begotten by incestuous relations and those born by the same women but not the product of incestuous relations. The study provided "dramatic evidence that among the offspring of incestuous unions, the risk of abnormality is appalling," and showed the "unmistakable effect of inbreeding on infant mortality, congenital malformations and intelligence level." (*Newsweek,* October 9, 1972) Truly these findings underscore the Scriptural principle: "Whatever a man is sowing, this he will also reap; because he who is sowing with a view to his flesh will reap corruption from his flesh."—Gal. 6:7, 8.

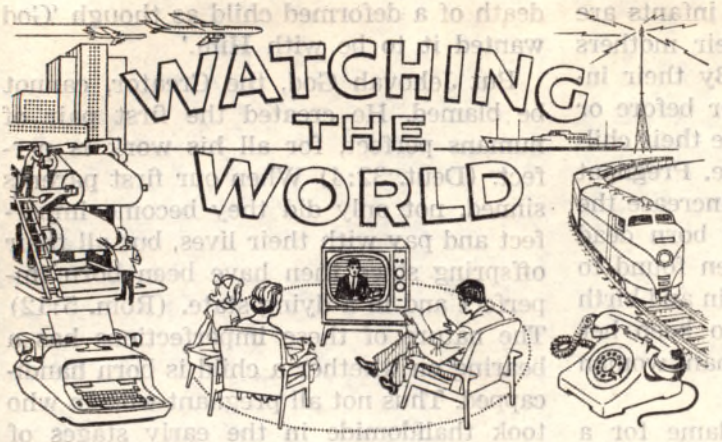
One of the most unfortunate aspects of being born handicapped is that it often causes parents to wonder why God permitted it or why he caused it, as though he were to blame for their plight, as in the case of little Karen. Others have taken a fatalistic attitude, as though it were God's will for them, or that they deserved the tragedy. Still others speak of the early death of a deformed child as though 'God wanted it to be with Him.'

But Jehovah God, the Creator, cannot be blamed. He created the first pair of humans perfect, for all his work is perfect. (Deut. 32:4) When our first parents sinned, not only did they become imperfect and pay with their lives, but all their offspring since then have been born imperfect and in a dying state. (Rom. 5:12) The nature of these imperfections has a bearing on whether a child is born handicapped. Thus not all pregnant women who took thalidomide in the early stages of their pregnancy gave birth to deformed babies but only those who also had a genetic defect. And as we have seen, other factors may also be contributing causes.

The Bible tells us that "God is love" and that he has made provision for humankind to regain its perfection by means of the ransom sacrifice of Jesus Christ and Christ's kingdom. Under the sway of that kingdom, there will come to be no tears, mourning, pain or death—hence liberation from all physical and mental handicaps. Even the dead will arise to benefit from those blessings.—1 John 4:8; John 5:28, 29; Acts 24:15.

In the meantime what? Carefulness in obeying God's laws and practical wisdom can do much to avoid the likelihood of a child being born handicapped in some way. Today there is also "genetic counseling" whereby parents can ascertain, at least to some extent, the risks they may be taking in bearing offspring.

And where this tragedy has already struck a family, what can be done? It should be viewed as a challenge to be met. How? By the rest of the family manifesting unselfish concern, patience, endurance; all contributing whatever they can so that the handicapped one can enjoy life in spite of his affliction, doing to that one as they would like others to do to them.



Food Crisis Grows

◈ "Many competent observers believe the need for food is the real reason behind the thaw in U.S. relations with Russia and China," says a *Progressive Farmer* magazine article. It observes: "Food production . . . has become more important than nuclear weapons." The United Nations Food and Agriculture Organization now says that a "shaky grain situation" in China, the worst harvest in Chile since 1930, and an all-time low in vital world fishmeal production are factors contributing to the growing food shortage world wide. Meanwhile in the United States, depleted grain reserves, increased demand, and a wet spring that has interfered with planting crops, have pushed prices upward. The Agriculture Department now says that food prices this year may increase twice as much as they did in 1972.

Military Morale Difficulties

◈ Eased tensions in the cold war have created troop morale problems for some countries. According to reports, thousands of Soviet military commissars met in April to study the situation. One London news analyst says: "When Soviet military men see all that sweetness between Russia and the U.S.—formerly the arch-enemy—they start wondering what's left for them to do." America's European forces are having similar problems. A captain in West Germany said about a training test: "The real question is whether we're training for war or just training for these tests. I guess all we do is train to pass the tests." Few soldiers believe that war is near. As one put it: "I don't mind being a pawn, but not in as ridiculous a situation as this."

Research on Live Fetuses

◈ Research on aborted live fetuses has been going on for some time in Scandinavian countries and others. Fetuses are kept alive artificially for several hours and even days while experiments are performed. British governmental guidelines set last year limit researchers to using fetuses within 20 weeks of conception and weighing less than 10.5 ounces. The U.S. National Institutes of Health made a recent policy statement that does not permit federal funds to be used to support such research. Protesting the NIH statement, Dr. Jerald Gaull of the New York State Institute for Basic Research in Mental Retardation said that "it is a terrible perversion of ethics —to throw these fetuses in the incinerator as is usually done, rather than to get some useful information." On the other hand, Dr. André Hellegers, professor of obstetrics at Georgetown University, parallels this type of research with experiments on condemned prisoners in Nazi concentration camps. He says that their approach was: "If it is going to die, you might as well use it."

Women as Clerics?

◈ With the steadily dropping ranks of seminarians and clergy, the ordaining of women as priests and ministers has become the subject of intensive discussion. It was given the most floor time at the 88th annual convention of the Episcopal Diocese of Los Angeles, California, this spring. "Do not make a decision on wrong grounds. Do not fall back on the New Testament as it pertained to the world then. It is not our world or our time," argued Silva Lake, who taught religion for fifty years. A similar view was expressed on another occasion by Chess Lovern, minister of a Tulsa, Oklahoma, Methodist church: "Anything the Bible said then can not apply to whether women today should be ministers." Thus, though claiming to be Christian, they reject the very book that is the basis for Christian teaching.

Hawaiian Quake

◈ Tall buildings swayed, trees and power poles toppled, roads and reservoirs cracked, water mains broke and windows shattered as the strongest earthquake in twenty-two years shook Hawaii. Eleven or more persons were injured and $3 million in damages was caused by the April 27 quake. It registered 6.2 on the Richter scale.

"Salvation" by Gambling

◈ "Beano," a gambling game, "was our salvation," appealed Roman Catholic Monsignor Joseph P. Burke as he spoke to

the Massachusetts Joint Committee on Government Regulations. He argued for legalizing another game of chance called "Lucky Seven." Dramatizing how much gambling games help to finance church-run schools, he said: "If we don't get Lucky Seven, we'll have to close." Gerard A. Guilmette, a member of the committee, filed legislation to legalize the game. The monsignor indicated it was already being played in "many places." Guilmette said: "Many members of the cloth are interested in this legislation." This situation prevails in much of the U.S. Says C. B. Woodrich, information director of the Denver, Colorado, archdiocese about the chance-game bingo: "That's what keeps elementary schools going."

Portuguese Church Crisis

◈ Is Portugal still a stronghold of the Catholic Church? No more, according to the Portuguese weekly news magazine *Observador*. It reports: "Portugal is, among all European countries, one in which the number of priests is smallest in proportion to the number of Catholics." And what about the church members? "Among the Catholics of the Patriarchate of Lisbon, only 15% go to mass on Sundays." The article, entitled "Church Crisis," observes in conclusion that "Catholicism is a minority religion in our country."

Child Terrorists

◈ Two North Carolina 9-year-olds, and another aged 11, reportedly extorted almost $1,000 from two 9-year-old classmates. These little terrorists are said to have demanded payments for protection from beatings over an 8-month period. Their victims tried to pay with lunch money, allowances and loans from friends. But as the demands grew, they began taking money from their parents until the father of one missed a $100 bill. The London *Daily Mail* reports a similar situation in England. Dr. Rhodes Boyson, headmaster of Highbury Grove Comprehensive School in North London, says he has seen "a whole class with razor blade cuts on their hands to show they have not paid their weekly protection money." He also says that "we are nearing a situation where it is the good boy who does not come to school—because he dare not."