

Awake!

"Far More than a Prophet, Mr. Rahman!"

PAGE 5

Terror at Sea

PAGE 12

Guard Against VD Pollution

PAGE 17

**Alcoholic Beverages—What Do You Know
About Them?**

PAGE 21

FEBRUARY 8, 1972

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!"

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

Average printing each issue: 7,350,000

Five cents a copy

Yearly subscription rates for semi-monthly editions in local currency

Offices

America, U.S., 117 Adams Street, Brooklyn, N.Y. 11201 \$1.50

Australia, 11 Beresford Rd., Strathfield, N.S.W. 2135 \$1.50

Canada, 150 Bridgeland Ave., Toronto 390, Ont. \$1.50

England, Watch Tower House, The Ridgeway, London N.W. 7 65p

New Zealand, 821 New North Rd., Auckland 3 \$1.50

South Africa, Private Bag 2, P.O. Elandsfontein, Tvl. B1.10

(Monthly editions cost half the above rates.)

Remittances for subscriptions should be sent to the office in your country. Otherwise send your remittance to Brooklyn. Notice of expiration is sent at least two issues before subscription expires.

The Bible translation regularly used in "Awake!" is the "New World Translation of the Holy Scriptures." When other translations are used, this is clearly marked.

Now published in 27 languages

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

Monthly—Chinese, Cinyanja, Hiligaynon, Indonesian, Malayalam, Polish, Tamil, Ukrainian.

CHANGES OF ADDRESS should reach us thirty days before your moving date. Give us your old and new address (if possible, your old address label). Write Watchtower, 117 Adams Street, Brooklyn, New York 11201, U.S.A.

Second-class postage paid at Brooklyn, N.Y.
Printed in U.S.A.

CONTENTS

What Kind of Love Results in Happiness?	3	Alcoholic Beverages	
"Far More than a Prophet, Mr. Rahman!"	5	—What Do You Know About Them?	21
Love of Truth	8	Eating like a Bird	23
Star of the Day	9	Who Can Help?	24
Water from the Arctic?	11	"No Bible Study Is Really Ever Done"	24
Terror at Sea	12	Okinawa—Where East and West Mingle	25
Guard Against VD Pollution	17	"Your Word Is Truth"	
		Divine Inspiration—Did It Rule Out the Human Element?	27
		Watching the World	29

Awake!

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

—Romans 13:11

Volume LIII

Brooklyn, N.Y., February 8, 1972

Number 3

What kind of love results in Happiness?

WHO does not desire to be happy—moreover, to have a happiness that is lasting? Many persons look to love for happiness. But what kind of love results in happiness? Is it just any kind?

For example, what about love of money? Does this love bring genuine happiness? Or is it not the case that people who pursue such a love 'stab themselves all over with many pains,' as the Bible says?—1 Tim. 6:10.

The ancient Greeks had four words to describe or emphasize four aspects of love: *e'ros*, *stor-ge'*, *phi-li'a* and *a-ga'pe*. Interestingly, each of these can contribute to a person's happiness.

To begin with, there is *e'ros*, the attraction of the sexes for each other. God shows that its expression has a proper place, for in the Bible a married man is encouraged to take delight in the charms of his wife. (Prov. 5:15-20) When married persons show consideration in expressing this aspect of love, happiness in marriage is greatly enhanced.—1 Cor. 7:3-7.

However, *e'ros* must be controlled, for it can lead to loose, immoral conduct. *E'ros*, in fact, has a way of disguising itself. A person may deceive himself into thinking he is displaying brotherly affection when actually it is *e'ros* or sex attraction that is causing him to express kindness to one of the opposite sex.

Stor-ge' designates the natural affection between close relatives and especially between parents and their children. It describes the affection that brothers and sisters have for one another and it has ever so many possibilities for happiness. It is this facet of love that ties a mother to her child and causes a father 'to show mercy to his sons.'—Ps. 103:13; Isa. 49:15.

This natural affection or *stor-ge'*, however, must be governed or guided by Bible principles. Otherwise it could result in undue partiality being shown, perhaps causing one in a position of responsibility to show favoritism toward some family member, with resulting deprivation of privileges for others. Or, such family affection might lead parents to let sentimentality keep them from properly disciplining their children.

Phi-li'a is generally defined as affection between friends who have certain interests in common. Christians are to have and express such friendly affection among themselves. (Rom. 12:10; 1 Thess. 4:9) But this friendly affection must be ex-

exercised in line with Bible principles. Otherwise it could lead to bad associations, which spoil useful habits. (1 Cor. 15:33) It might be said that such friendship must usually be merited, whereas family affection (*stor-ge'*) is to some degree inherited.

Interestingly, the Bible never uses this word *phi-li'a* in commanding men to love God, perhaps because God, as the Sovereign of the universe, is the One who rightfully takes the initiative in selecting his own friends and determining with whom he will share his intimate association. (Ps. 15:1, 2) Jesus, however, assured his disciples that "the Father himself has affection [*phi-li'a*] for you."—John 16:27.

The word *a-ga'pe* is used to describe love in which principle is the most distinctive feature, emphasizing this feature more than that of natural affection. This term is employed with regard to the love Almighty God Jehovah showed in sending his Son into the world to die for sinners, and that which Jesus showed in laying down his life for his friends. Because the love Christians have for God is founded on and governed by righteous principles, their love causes them to keep his commandments, whatever the cost.—Mark 12:29, 30; John 3:16; 15:13; Rom. 5:8.

Too, the love that Christians show to one another not only involves friendly and brotherly affection but also is guided by and founded on right principles. This marks them as Christ's disciples.—John 13:34, 35.

How *a-ga'pe* works is described for us at 1 Corinthians chapter 13. It does not seek its own interests; it rejoices in the truth; it bears, hopes and endures all things. It never fails. Therefore it is bound to result in happiness, for, as Jesus said, "there is more happiness in giving than there is in receiving."—Acts 20:35.

But in endeavoring to express love in an unselfish, principled way, you still need divine wisdom for it to result in true happiness for you. You could, for instance, so concentrate on being self-sacrificing that you would have a nervous breakdown. So, unselfish, principled love is reliant on knowledge and wisdom for its proper exercise.—Phil. 1:9, 10.

Clearly, then, all four of these aspects of love may properly find their place in the Christian's life. *E'ros*, of course, is largely limited to the marital relationship. *Stor-ge'* or natural affection is not restricted to blood relatives, for a man's wife becomes his closest relative, the two being one flesh. Additionally, among Christians a family spirit prevails and persons may show fatherly or motherly affection for those not their natural offspring, and vice versa.—Mark 10:29, 30.

There should likewise be *phi-li'a*, friendship among Christians, as also in families (as between father and son, just as is the case with Jehovah and his Son [John 5:20]), and in marriage. Also, all our love requires that quality expressed by *a-ga'pe* or love with emphasis on principle. The bonds of family relationship or of marriage should never rely entirely on feeling and sentiment for their strength. At times a sense of duty must be felt; there may also be the need of mercy and forgiveness, long-suffering and endurance, all of which might be said to be emphasized by *a-ga'pe*.

Truly, all four facets of love can result in a measure of happiness: *e'ros*, *stor-ge'*, *phi-li'a* and *a-ga'pe*. But they must be guided by Bible principles. Then they can result in happiness now, in the approval of the Creator, Jehovah God, and gain for one everlasting life in happiness in his new system of things.

"Far More than a Prophet,

Mr. Rahman!"

By "Awake!" correspondent in Liberia

"THE BIBLE—no! I do not wish to discuss it. As a Moslem, I have my own holy book, the Koran. Besides, Christians are the most warlike people on earth."

The missionary kindly replied: "It is true, Mr. Rahman,* Christendom is warlike and wayward, so different from early Christianity. It is easy to understand your disgust."

"Really, I do not want to hear anything from the Bible. You can never convince me that Jesus is God."

"Mr. Rahman, you may be surprised to know that the Bible does not teach that Jesus is God Almighty. Rather, it portrays Jesus as praying to God, calling him, at John 17:3, 'the only true God.' The Bible also says Jesus was 'sent' by God, and that he is the mediator between God and men."—John 5:30; 1 Tim. 2:5, 6.

"That is just what our Koran also teaches. Jesus was a good man. We call him 'Nabi,' that is a prophet."

"It is true, Mr. Rahman, Jesus was indeed a prophet. In fact, he was the prophet whose coming was foretold by Moses, the one you Moslems call 'Nabi Musa.' Let me read you Moses' words as recorded at Deuteronomy 18:15: 'A prophet from your own midst, from your brothers, like me, is what Jehovah your God will raise up for you.'"

Why Greater than Moses

"Jesus was like Moses in many ways.

* This name, common among Moslems, is assumed. The dialogue is based on true-life discussions with Moslems of the Ahmadiyyah movement.

Both Moses and Jesus were anointed by God's spirit or active force, both performed miracles, and both mediated a covenant between God and his people. Mr. Rahman, do you know the purpose of the covenant that God made with Israel through Moses?"

"Well, I think they were to obey God and be his people."

"Quite right, and even more. If they obeyed God they would become 'a kingdom of priests and a holy nation.' (Ex. 19:5, 6) God would give them the privilege of serving as priests in behalf of the human family."

"But the people of Israel were unfaithful, weren't they? Isn't that why God rejected them?"

"Yes, and when he did, the covenant mediated through Moses came to an end. But God still wanted 'a nation of priests.' To produce such a 'nation' God made a new covenant through a new mediator."

"And you say Jesus was that new mediator. But why Jesus? Why not another prophet, like Mohammed?"

"Because the penalty of death that resulted from the first man's sin could not be removed through a sinful mediator, not even a man as great as 'Nabi Musa.' In fact, Moses as mediator could only act out in advance what the one greater than he would fulfill."

"What do you mean by that?"

"When Moses acted as mediator, he simply offered sound animal sacrifices to illustrate the principle of equal justice stated in God's law at Deuteronomy 19: 21, that is, 'Soul will be for soul.'"

"I don't understand."

"Well, let's put it this way. What does justice require when a man murders his fellowman?"

"The life of the murderer, I would say."

"Quite right, Mr. Rahman. The life of the murderer will be taken for the life of his victim. Now let us apply this to the human race, which has inherited death from Adam. By his disobedience to God, Adam forfeited not only his own right to life but also that of all his future offspring. He thereby brought on all of them the condemnation of death.

"Now, God cannot simply set aside his requirement of justice that calls for our death due to inherited sin. But he can accept as satisfaction of justice the death of a sound victim, a perfect human, because that human life would correspond to the originally perfect man, Adam."

"And you say that perfect human was the prophet Jesus?"

"Yes, Mr. Rahman. Jesus was more than just a prophet; he was conceived by an act of the divine will, even as your Koran recognizes, and so was a perfect human."

"But the death penalty upon the human race involves millions of people. How could one life satisfy justice for so many?"

"Well, consider: The whole human race was yet unborn in Adam's loins at the time he sinned. And so all of us as his offspring inherit from him sin and its penalty death. Now, at the time the perfect man Jesus died, he too had a possible race of humans unborn in his loins. But Jesus gave up his right to father a human family in the normal way, through a hu-

man woman. So God has accepted his unborn human offspring as a counterbalance of the human race that Adam has produced till now. In this way, one perfect man, Jesus Christ, was able to die for all mankind."

"Hmm. Very interesting."

"So you see, Mr. Rahman, that explains why imperfect Moses could do no more than act out the role of mediator. He did not have in his loins a perfect race, since he had inherited imperfection from Adam. But the death of the greater mediator, Jesus, did provide the justice-satisfying ransom for each one of us, because he was without sin.

"Furthermore, Mr. Rahman, the justice of God in this case could not be satisfied simply by prayer—not even all the fervent prayers of all the prophets of God put together. Thus we must approach God in the name of the true mediator, Jesus Christ, and on the basis of his ransom."

Why "Son of Man"?

"It's hard for me to believe that Jesus was a man without sin. If he really came from heaven, then why does the Bible call him the 'Son of man'?"

"That title, Mr. Rahman, is used in the Bible to emphasize that he was not only the one foretold by the prophet Daniel (7:13, 14) but also the great Kinsman of mankind. Let me illustrate it this way. At one time angels in materialized fleshly bodies visited Abraham and talked with him. Now, would you say that those angels had become members of the human race?"

"Well, no. They were really angels."

"Quite so. And an angel, being a superior type of creature with a spirit body, is just not the equivalent of man. To redeem us, the justice of God required a 'corresponding ransom' to counterbalance perfectly the human life that Adam lost. Also, only a perfect human would have

in his loins offspring to counterbalance the perfect human race that Adam originally was capable of fathering.

"So to meet these requirements, Mr. Rahman, God provided a perfect man born of flesh and blood, and hence a true son of the human race. Jesus had existed in heaven as a powerful angel, but God transferred his life force to the womb of a virgin girl, and he was thus born completely human and yet free from sin. In this way he corresponded to Adam (when perfect) in the fullest sense of the word. As an actual member of the human race, Jesus alone was suitable to redeem us, and this is implied by the title 'Son of man.'"

Quick Death of Jesus Impossible?

"Your explanations are impressive, sir. But I can't help regarding it all as rather unreal. For example, I'm suspicious that Christians have forced the circumstances of Jesus' death to fit their theory of salvation."

"What do you mean, Mr. Rahman?"

"Well, a robust man like Jesus could not possibly have died after just six hours hanging on the tree. It takes at least twenty-four hours for death to come unless hastened by breaking the legs. And I believe the Bible admits that Jesus' legs were not broken."

"You are right, Mr. Rahman. And this was fitting, for his perfect sacrifice was thus like the ancient Passover lamb whose bones were not to be broken."

"But why are you so certain that Jesus died that day? Six hours is just too short a time for a strong man to die under those circumstances, don't you agree?"

"But this was the will of God, Mr. Rahman. According to the Bible prophecy, 'Jehovah himself took delight in crushing him.' (Isa. 53:10) So it was really God who did not allow Jesus to suffer long on

the stake, but permitted his death before the soldiers could break his legs.

"Furthermore, Mr. Rahman, soldiers would not be careless in letting a condemned man escape death. The Bible says they even jabbed Jesus in the side with a spear, and that 'blood and water' came out. This helps us to understand the manner of his death."

"Really? How is that?"

"Well, Jesus had been under severe strain. The evening before, he was in such an agony that his sweat was like drops of blood. He had also been brutally flogged. Some suggest that, under the intense mental and physical pressure, his heart or one of the larger arteries ruptured, causing blood to pour into his pericardium, the membrane that loosely encases the heart and which contains fluid. When the spear was jabbed into his side, the blood and pericardial fluid released would appear as 'blood and water.' Whatever the case, Jesus was certainly dead."

Was "Yus Asaf" Jesus?

"Yet there is the opinion that Jesus later revived, and traveled to India. In fact, there's a tomb that has been discovered in Kashmir with the inscription 'Yus Asaf,' meaning 'Jesus the Gatherer.' Who can say this was not Jesus, who somehow survived his ordeal and went to India?"

"I am familiar with the Kashmir legends, and their claim that Jesus went to India seeking the so-called 'lost tribes of Israel.' But the idea that Yus Asaf was Jesus is pure speculation. There is a complete absence of accounts by eyewitnesses and no testimony by Yus (or Jus) himself as to his origin. No solid basis exists for faith in Yus Asaf as being Jesus, particularly in view of the great amount of evidence that Jesus did die at Jerusalem."

"Well, I don't know. You hear different ideas and opinions. Is there really proof that Jesus died at Jerusalem?"

"Yes, Mr. Rahman, the evidence that he did is overwhelming."

Evidence Regarding Jesus' Death

"To begin with, the Hebrew prophets foretold details about Jesus' death. Isaiah, for instance, testified that Jesus would pour out 'his soul to the very death' as he 'carried the very sin of many people.' (Isa. 53:12) The Messiah's death, the prophet Daniel indicated, would occur in the fourth year of his ministry. (Dan. 9: 26, 27) And Jesus himself told his disciples in advance that he would die at Jerusalem.—Luke 13:33.

"Also, the Bible record shows that the Romans took precaution against allowing a living Jesus to be taken off the execution stake. According to Mark 15:44, 45, when approached by Joseph of Arimathea, 'Pilate wondered whether Jesus was already dead, and, summoning the army officer, he asked him whether he had already died. So after making certain from the army officer, he granted the corpse to Joseph.' This is what the Bible record says."

"But perhaps, sir, the records were amended down through the centuries to make them read as they now do."

"We have proof, though, Mr. Rahman, that the records have not been changed. The discovery and critical study of very old Bible manuscripts and fragments establishes this beyond question. And even if there were some question about the reliability of the Bible records, we still have the testimony of non-Christian his-

torians such as the first-century historian Tacitus, who wrote in his *Annals* that Jesus 'suffered the extreme penalty' at the hand of Pontius Pilate.

"Another thing to consider, Mr. Rahman, is that for Jesus' followers to put faith in and preach about Jesus' resurrection meant official persecution. Do you think they would endure vicious beatings and even death to perpetrate a lie?"

"Well, I don't know. I must say the evidence does appear rather strong."

"The fact is, Jesus' death was so vivid in the minds of his disciples who saw him die that it afterward took a number of appearances of Jesus fully to convince them that he really had been raised from the dead. History abounds with references to their zeal and the rapid growth of Christianity all because of their conviction regarding his death and resurrection. Indeed, Mr. Rahman, as one scholar observed, the death and resurrection of Jesus Christ 'must be reckoned among the best established facts of history.'"

"Well, sir, you have given me something to think about. However, to comprehend fully the things you have mentioned about Jesus Christ will take time for a Moslem like myself."

"You do believe that Jesus was a prophet of God, Mr. Rahman?"

"Oh, certainly. He was, as you said, like Nabi Musa."

"Why not, then, read for yourself the record of his life and teachings directly from the Bible?"

"Yes, I think I must do that."

"If you do, perhaps you, too, Mr. Rahman, will be convinced that Jesus is far more than a prophet."

Love of Truth

- A real love of truth involves more than accepting as truth what happens to agree with one's own viewpoint.



Star

OF THE DAY

OUR earth is not very big when compared to that star of the day—our sun. Why, a million earths could be put into one sun. And yet our sun, as a star, is not really big. It is like a dwarf. Some stars are hundreds of times as large as our sun! The bright red star, Betelgeuse, has a diameter about 400 times as great as that of our star of the day.

Nor is the sun by any means the brightest star. The star S. Doradus is about 500,000 times as bright as the sun! But for our earth the sun is just right.

Our sun looks so much brighter and bigger than other stars simply because it is the nearest one to the earth. The sun's average distance from the earth is nearly 93,000,000 miles (149,637,000 kilometers). Light reaches the earth from the sun in about $8\frac{1}{3}$ minutes. Since the sun is the center of the solar system, the earth and all its sister planets move in great circles around it.

Moving at a tremendous speed, the sun travels through space at about twelve miles a second. Yet there is no danger that our sun will travel too close to another star. The nearest star, called Proxima Centauri, is more than 25,000,000,000 miles (40,225,000,000,000 kilometers) away. So far away is it that it takes light, traveling at more than 186,000 miles a second, over four years to get from that star to our earth. If the earth were traveling in the direction of Proxima Centauri, it would take nearly 65,000 years to reach it.

When we consider, then, that our sun is but one among thousands of millions of suns, incandescent balls of fire whirling through space, it should move us to think of the One who has them all in his power and calls them all by

name. (Ps. 147:4) Truly the sun is a gift from "the Father of the celestial lights," who makes it shine upon all alike, the wicked and the good. (Jas. 1:17; Matt. 5:45) Certainly our star of the day can be said to praise its magnificent Creator. —Ps. 148:3.

A Giant Nuclear Reactor

Our sun is a big, bright ball composed of hot gases. The most common elements of which our sun is made are hydrogen, helium, calcium, sodium, magnesium and iron. But from where does the sun get its heat? Actually our star of the day is a kind of atomic furnace. The process is complicated indeed, but, basically, hydrogen gas in the sun is transformed into helium. Four atoms of hydrogen unite to make one atom of helium, and in the process much energy is released.

The surface temperature of the sun is said to be about 11,000° F. (6,000° C.). But because of its great distance from the earth only about one two-billionth (one two-thousand-millionth) of its radiant energy reaches the earth. Yet this amount is fully sufficient to provide ideal climatic conditions that make vegetable and animal life on earth possible.

If just a fraction of the sun's fantastic amount of energy could be harnessed, man would solve his major problems with regard to heating and transport. If man knew how to use it effectively, it has been said that the sun could provide one and a half horsepower of energy for every

square yard of the earth on which the sun shines.

Solar Prominences and Sun Storms

From time to time big flames shoot out from the sun; these are called solar prominences. These big geysers or fire fountains burst out and die down again, scattering fire in their path. They may shoot out over 200,000 miles from the sun itself.

Then there are those dark specks or blotches on the surface of the sun called sunspots. They are really sun storms of whirling masses of electrified gases. Apparently because they are lower in temperature than the rest of the solar atmosphere, sunspots look like dull patches in a coal fire.

Sunspots affect us in that they appear to be associated with the magnetic storms to which our earth is subjected from time to time. As a result there are radio fade-outs. For example, in March 1970, the Philippines reported a sun storm so intense that experts said it covered 60 to 70 percent of a region near the sun's equator. It caused a radio blackout on the lower frequencies that lasted for more than an hour. Other electrical instruments on the earth are also affected by sun storms, and the compass needle may stop pointing northward and erratically spin around.



Without the sun there would be no food to eat, for plants use the sun's radiant energy to manufacture food

Plants Trap Sunlight

But in what way does this big star, whirling through space and millions of miles away, affect us more personally? Well, it gives us the food we eat and the air we breathe. How so?

It is by the process known as photosynthesis. This word comes from "photos," meaning "light," and "synthesis" or "a putting together." It occurs when green plants use the energy from sunlight to put together foodstuffs from carbon dioxide and water. This food produced is in the form of carbohydrates. At the same time the oxygen in the water is released as free oxygen gas. So, not only our food but also the oxygen in the air we breathe is made available by photosynthesis.

Another factor very necessary to life is warmth and, as we have seen, our sun is hot enough to keep us all warm. Its life-giving powers are most evident in the spring when heat from the sun's rays penetrates the frozen earth and wakes the tiny seedlings, bringing their little green noses pushing above ground. The amount of heat that comes to the landmass has an all-important effect on what can grow there. No important vegetation is possible, for example, in places such as the Arctic, where the average temperature of the warmest month stays below 42° F.

The sun provides not only food and air to keep us alive, but also freshwater. Heat from this solar furnace draws up water from the soil, lakes and rivers as water vapor. This vapor then condenses in the upper atmosphere and forms clouds. Eventually this moisture in the clouds falls back down as rain, feeding the rivers, watering the plants and giving us the freshwater we need. The words of the God-fearing man Elihu, recorded in the book of Job, describe it: "For he draws up the drops of water; they filter as rain for his mist, so that the clouds trickle, they drip

A W A K E !

upon mankind abundantly." (Job 36:27, 28) In some places it rains more abundantly than in others, but the constancy of this cycle helps to preserve our lives.

Other Effects and Benefits

The sun also gives us our colors, for color is produced by the reflection from the object of the different colors of lights in the sun's spectrum. And not to be underestimated either is its psychological effect. People who are cold or tired or lonely are made to feel better on a warm, sunny day, is that not so?

The sun serves as a great timekeeper for us, along with the moon and stars. (Gen. 1:14, 15) The solar day of twenty-four hours is determined by the rotation of the earth on its axis. The year is the time taken for the earth to go around the sun. And the varying height of the sun in the sky and the length of time it appears are ultimately the causes of the



The sun not only provides warmth but also makes possible freshwater

seasonal changes in climate and natural life.

Yes, our sun has an overwhelming effect on our lives. The Creator has provided this great source of energy to assure that we will have light and warmth as well as air to breathe. It calls forth showers and spring

flowers. And by it we keep time and regulate our lives.

How vital our sun is to the earth! Without it the earth would shoot off into space. Without it, our moon would seem to disappear, no longer reflecting its light from the sun. The earth would be virtually dark. It would become very cold, and there would be no humans alive on earth to miss the resplendent sunsets.

But the Creator of the sun assures us that our star of the day will continue to shine on and on throughout eternity, never ceasing to bathe our earth with radiant heat and light.—Ps. 89:36; 104:5; Gen. 8:22.

WATER FROM THE ARCTIC?

● When you are very thirsty and would like a refreshing drink of water, you probably would not dream of going to the Arctic for it. But what about bringing the Arctic to you? Professor Tinco van Hylckama of Texas Tech University reports on a proposal to bring Arctic water to thirsty cities.

In a 1971 article he explained that an average-sized iceberg from Greenland contains sufficient sweet water to supply a town of 60,000 people for a whole year, if one of these icebergs could be towed to a thirsty city. However, he adds: "Greenland icebergs are irregularly shaped and have a habit of going topsy-turvy

at times, which makes towing rather risky."

He calculates, though, that a good-sized tugboat could bring a stable, flat-top iceberg from Antarctica to Australia. The trip might take six or seven months at a cost of one and a half million dollars, and with a loss through melting of half of the ice. Even so, the professor reports, there might be enough sweet water available to supply 4 million people for a year. Even with the cost of constructing piping, pumps and other apparatus, "such water still would be very much cheaper than that of even the most efficient desalinization plant now available."

MOST of us were tourists from Italy and other European countries returning from vacation in Greece. We left the port city of Patras on Friday morning, August 27, 1971, and headed northwest across the Ionian and Adriatic Seas toward Ancona, Italy. All day Friday the weather was calm, but our progress was very slow. Sometimes it seemed as if the ship were standing still.

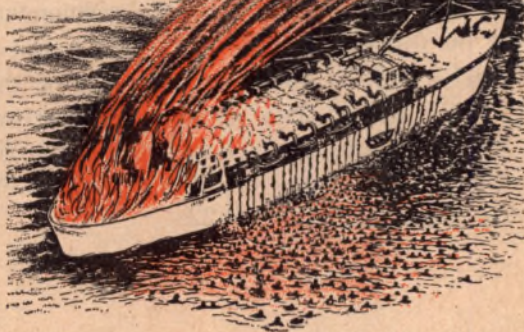
We were on the Greek ferryboat Heleanna, a 561-foot-long converted tanker. Despite its huge size, it was not difficult to see that it was overcrowded, more than a thousand passengers occupying every possible corner, along with some 200 autos. I was one of the numerous passengers who did not have a cabin, and so was making the best of it on the upper deck. Here many were enjoying the caresses of the seawater in the swimming pool, and were trying to add to their suntan.

That night many of us slept on deck, using the deck chairs that were available. That was not unpleasant at first, but toward two in the morning a light wind came up and kept increasing in intensity. The chill began to penetrate. Quite a few moved below to find a more protected place. I took my deck chair and followed. In the dining room many passengers were already sleeping, so I found a place and continued my rest.

Fire Breaks Out

At 5:40 a.m. I was suddenly awakened. People were running to and fro, and I saw

TERROR AT SEA



light smoke outside. Someone said that there was a fire. Then I heard one of the crew cursing the night watchmen for not noticing it earlier. I thought perhaps someone had thrown down a lighted cigarette and started a small fire. But newspapers later reported that the fire started in the kitchen in the rear of the ship.

I returned to the upper deck where my luggage was. People were moving in every direction. Many already had on life jackets. The smoke was increasing. I could see flames leaping high into the air on the port side at the rear of the ship. Some of the crew were hurrying toward the fire with extinguishers.

As the fire increased, so did the panic. Women were fainting, children crying, and men protesting and threatening. Some youngsters, in order to have proof of the

experience, were taking pictures while in their life jackets.

People were running to the lifeboats on each side of the deck. I moved my suitcases, which were near the fire, to another place that seemed safer. I kept with me only a handbag, containing documents and valuables.

I approached one of the lifeboats, which some young crew members were working hard to prepare for use. But nothing seemed to work. It was not possible to lower the boat because the heavy lines used for this purpose were too thickly coated with paint. When this problem was remedied, the capstan bar would not function properly to lower the boat.

Momentary Relief; Greater Panic

Meanwhile it seemed that the crew had succeeded somewhat in controlling the fire with the extinguishers. One could see only a little smoke now. The feeling of relief was strengthened by the brief announcement over the public-address system, the only time that it was used: **THERE IS NO DANGER, REMAIN IN YOUR PLACES.**

But alas! The facts were to the contrary. The strong wind soon whipped the flames, and about five minutes after the announcement they were again seen climbing high. Fanned by the wind, they advanced furiously. The spectacle was terrifying.

This time the passengers, seized by fear, rushed frantically toward the lifeboats. Most of them were only partially dressed, many clad only in pajamas and nightgowns, since they had been asleep in their cabins. In a few moments they filled the lifeboats. Really they did not know what to do, for they had received no instructions whatsoever.

The crew, however, tried to persuade them to get out of the boats, since they could not be lowered. So there was more

confusion and panic as people scrambled out. I saw one lady with a finger completely smashed, running for a doctor.

I could see no rescue ships coming, and I was wondering whether an SOS had been sent. We were not far from the Italian coast, for we had seen its lights earlier in the morning. Later we learned we were only fifteen miles from Torre Canne in southwestern Italy. It seems that an SOS was not sent until 6:40 a.m., about an hour after the fire was detected.

Everywhere I looked, faces were full of desperation and terror. Here was an Italian lady about to faint, comforted and encouraged by her daughters. Over there was a courageous French mother, giving instructions to her teen-age daughters. Farther away, a couple were systematically tying the life jackets on their small children, making sure that everything was OK. Even some of the crew's faces were as pale as white sheets.

About this time two ships were seen on the horizon heading for us, but still a long distance away. This gave a certain feeling of relief. Many thought the ships would send their lifeboats to pick us up. In fact, the word was spread, from an unknown source, that we should go below to the reception area and be ready to descend to the lifeboats when they arrived. I followed this suggestion and went down too.

Waiting Below

The reception area was already packed with people faced toward the two exit doors. Fortunately the blowing wind could penetrate these doors, providing some air to breathe.

People were more calm here, although some were still fainting. All were trying to comfort one another. Everyone was looking toward the open sea with the hope of seeing a rescue boat approaching. We were expecting an announcement over the

public-address system as to what to do, but none came.

More than a half hour passed, and had smoke not started coming down the stairs we would probably have been caught like mice in a trap and burned alive. I was near the stairs, and so as soon as I saw the smoke I rushed to the upper deck. I went to the front of the ship, away from the fire. Many people were already there. Dense smoke was coming from behind the commander's deck.

Desperate Situation

Until this moment I had been rather optimistic, hoping that even if we were to lose our cars and luggage, we could at least escape with our lives. Now, with the flames just at our backs, there was no longer room for optimism. However, despite the danger, I remained calm.

I saw people leaning over the rail and thought that ladders had been lowered for entering lifeboats. But when I looked, I saw the sea full of people! Instead of ladders, heavy lines had been tied to the railing and people were letting themselves down into the sea. The deck was about fifty feet above the water, and the idea of hanging over empty space and letting myself down, without even knowing whether the ship was stopped or not, almost froze the blood in my veins. I was without a life jacket, and I did not know where the others found theirs.

Looking up to the commander's deck, I saw a crewman with a life jacket on and I asked him if he would give it to me. He took it off and started to throw it down. But we saw that the strong wind would blow it away, leaving us both without a life jacket. So I thanked him and turned to see if there was another means of help. Then I saw a life ring lying on the deck. Someone told me that this was even better than a life jacket, so I took it.

I hardly had it in my hands when a young man, himself without a life jacket, and with a baby girl in his arms, approached me, saying: "Please give it to us. There are four of us and we have no life jackets." Standing next to him was his wife with another baby in her arms. I immediately gave it to him.

I felt pity for the plight of this young family. How could they manage with two infants? Just in front of them was a young man getting ready to go down the line. Desperately, the father begged him to take one of his babies. The man unselfishly agreed, and with rare skillfulness and attention started down the line carrying the baby. The spectacle was breathtaking, and I was very glad to learn later that all four of this family were saved.

Into the Sea

Now I had to do something myself. There was no time to lose. The smoke was getting thicker and the wind stronger. I had no other choice; I had to go down into the sea on one of the lines! I gathered all my courage, discarded my raincoat, handbag and shoes, and climbed over the rail. I held tightly to the line; the weight of my body quickly pulling me down. Due to the speed of my descent I sank deep into the water. Immediately I struggled to the surface. I breathed deeply, and tried to keep away from the lines floating alongside the ship.

It was then that I noticed deep wounds on some fingers and the palm of my left hand, but I did not feel any pain. The sea was full of people, and one after another others kept coming down from above. More than once people fell on me, pushing me down underneath the water.

I was trying to get away from the ship, but it was not easy, as big waves were catapulting against it. I felt as if I were in the midst of a gigantic whirlpool that

was pulling me under the ship, which stood as a huge, terrifying mountain above our heads. It was terrible! I saw clearly the danger of being drowned at any moment.

To make things worse, there was a lifeboat hanging above our heads. No one knew whether it was descending, or left there halfway down. Then as the fire progressed on board, burning pieces of the boat started falling around us.

As the danger increased, I made an extra effort and swam toward the screw of the ship. Fortunately the ship had stopped. I reached the screw and held on for a few minutes to catch my breath and to rest up a bit. Then I started swimming toward the open sea.

Fight for Survival

Nearby was a woman floating with a life jacket on. I heard her crying "*Aiuto, Aiuto*" (Help, Help), with a fainting voice. She was a middle-aged woman, and most probably not familiar with the sea. Since we were still near the ship, I told her to try to get away to avoid being hurt by falling burning pieces. I took her hand and swam with the other arm, attempting to make it to the open sea.

The waves were big, some five to eight feet high, and swimming was not easy. Nevertheless, I kept ahold of the lady's hand. I turned to see how she was doing, but her face seemed lifeless. When I called to her, there was no response. Her eyes were half open, and she had a quiet expression on her face. But I did not know whether she had fainted or was dead.

The sea was getting rougher, making my own situation critical, especially since I was without a life jacket. Also, my dress was weighing me down, but I could not get rid of it. Not far away I saw floating in the water a half-burned rope ladder. I tried to get to it, since it could help me in keeping afloat, but I could not reach it.

I could see that there was nothing to do but to swim toward the two ships that I had seen before going overboard. Now there was also a third ship. I held with one hand to the life jacket of the lady, while I swam facing the heavy seas. I was all by myself, really like a nutshell in the midst of the immense sea, with a woman, evidently dead, at my side.

Certainly this was not encouraging, yet I did not feel alone and lost. Since the beginning of the disaster I had directed my thoughts to our Creator, and asked humbly his help and guidance in this difficult moment of my life. I did not take for granted that he had to save me, but I knew he could do it if that was his will. I called continuously upon his divine name Jehovah, and that gave me strength. I could not help but remember what I had read in the Bible, in Acts chapter 27, about a shipwreck experienced by the apostle Paul while also going to Italy.

The hours were passing and there was no evidence of help. The waves were becoming bigger and more violent. I tried to ride the crest of each wave as it slammed into me. Holding to the life jacket of my dead companion was of some help. But the continuous fight to keep afloat made me very tired; my strength was diminishing.

A helicopter passed overhead a few times, apparently trying to locate survivors. Then there was another one. I saw it far behind me picking up persons. As the helicopter was coming in my direction, I waved my hand so as to be seen.

By this time I had almost reached one of the ships that I had been swimming toward, but the wind was pushing me away to the right. With all my attention focused on the helicopter, I had not seen that there was already a motorboat in the water approaching me. Oh, what a relief! What a joy!

Rescue

When they reached me, they threw a heavy line for me to grab and climb into the boat. But I could not make it. I was completely exhausted, and I had a cramp in my right leg. So two of the sailors leaned over the side and picked me up with their strong arms. They immediately covered me with a blanket and gave me a drink like cognac that made me vomit the seawater that I had swallowed.

I was completely without strength. But what a feeling of contentment to be seated in that boat, liberated from the arms of a furious sea after more than three hours of struggle!

I felt sorry for my dead companion. The sailors had to abandon her in the sea, since they were hurrying to pick up those that they could find alive. But, had it not been for the help that she unknowingly gave me, I do not know whether I could have survived.

In the boat with me were more survivors that had already been picked up. All were wrapped in blankets, and extreme fatigue could be seen in their faces. The motorboat searched speedily for more survivors, and when it was full it returned to its home base, a Yugoslavian ship named Svoboda, meaning "Liberty."

The crew were extremely helpful. They placed practically everything aboard at our disposal. More than a hundred of the survivors were already on the Svoboda, including the captain of the Heleanna, his wife, and some other members of the crew.

Mixed Emotions

The picture of the shipwreck survivors was pathetic. True, I could see joy and satisfaction on tired faces, grateful for having survived. Yet there were ones very sick, some burned or with arms broken. And most, like myself, had injured hands

from slipping down the lines into the sea. Many were extremely worried, not knowing what had happened to other members of their family.

Very touching was the scene of a young man who found his sister. They fell into each other's arms, crying, since they did not know what had happened to their mother. The young man had tried to help her, but then his strength gave out. There was a lady who was traveling with her four children. Two of them had survived with her, but the two younger ones were missing. Sitting in a corner, speechless, was an Italian girl who had seen her father drown before her eyes. So there was an atmosphere of deep grief among many.

While the Svoboda steamed toward Bari, Italy, where we arrived about three hours later, we tried to dry our clothes in the warm sun, and get a little rest. We were all thinking of what would have happened had the fire started in the night, or had we been farther from the coast. There might have been no survivors. As it was, over a thousand were rescued, and only about two dozen perished.

Police authorities, journalists, nurses and first-aid cars were ready for us ashore. Those of us in need of medical care were promptly taken to hospitals, where we received attentive and loving care. Everything possible was done to relieve us, for which I am grateful. I will also always remember with gratitude my friends who visited me and impressed those around me in the hospital with their numerous and spontaneous expressions of sincere Christian love.

No longer do I have physical pain from the injuries suffered. And although my material loss was considerable, there is this consolation: I still have what is beyond price, my life.—*Contributed.*

Guard Against

THE worst kind of pollution rampant today is venereal disease or VD. The need for safeguards against it is greater than ever before. Venereal diseases are increasing to such an extent that they are no longer termed "epidemic" but "pandemic."

Alarms have been sounded in England and Wales, in Canada and France, in Sweden, Poland and the Netherlands, in the Far East and Latin America. As for the United States, in 1970 it saw a 16-percent increase in gonorrhea and an 8-percent increase in syphilis over the previous year. Besides, it has been estimated that there are some 500,000 undetected cases of syphilis.

Rates in some cities have doubled and even tripled over the previous year. Houston, Texas, is said to have a "galloping venereal disease epidemic," and in Los Angeles in the past year 6 percent of women giving birth to babies had gonorrhea. United States health officials state that, while the syphilis problem is disturbing, the gonorrhea situation has almost reached a point causing despair.

"Greatest Threat to Teen-Age Health"

That is what one of America's leading magazines for teen-age girls calls VD, and not without good reason. In San Francisco a high school student has a 20-percent chance of contracting VD before completing school. In the United States as a whole the gonorrhea rate for fifteen- to nineteen-year-olds is three times the national aver-

VD POLLUTION

age for all ages combined. Over the past five years VD has increased over 1,000 percent among teen-agers!

And how young some of the victims are! Poland in a recent year had 64 cases of VD in children from ten to fourteen years of age. In Philadelphia in the past year there were 50 cases of VD in children under ten years of age. In Memphis, Tennessee, a five-year-old boy was treated for VD he got from intimacy with a nine-year-old girl! When questioned, the girl refused to name any of her other sex partners.

Syphilis and Gonorrhea

Syphilis is the more dangerous, whereas gonorrhea is the most prevalent venereal disease. Concerning syphilis, *Boyd's Textbook of Pathology* states: "Of all diseases it is the most subtle. It is a master of disguise. It is hardly an exaggeration to say that there is no symptom that it cannot cause." It even has been said that one who knows all about syphilis knows all about medicine. It is transmitted almost solely by sex relations, and mothers

having it can infect their unborn offspring, though it is not hereditary.

Syphilis, which is caused by a very active and tiny corkscrew-like organism, has three stages. There is a primary stage, in which a sore or pimple develops at the place where the germ entered. Then within two or three months the more serious second stage appears. It may be marked by chills, fever, headache, white mucous patches in the mouth, and hair falling out.

For one third of the cases there is a third stage. It may appear a few months or a few years after the second stage, although at times it does not make itself manifest until ten or twenty years later. The parts most frequently harmed are the brain, the spinal cord, the eyes, the liver and the blood vessels of the heart. From 5 to 8 percent of all cases of insanity are said to be due to VD. Recently a brain specialist found 226 persons suffering from mental disorders for which no cause had been ascertained, but who had been treated for syphilis years before.

Gonorrhea is caused by a tiny organism shaped like two coffee beans. Its spread is almost wholly limited to sexual intercourse. Within three to five days it makes itself felt by a burning or stinging sensation at the time of urination, by emission of pus accompanied by redness and soreness of the male sex organ. Yet, 8 out of 10 women have no obvious symptoms.

While gonorrhea does not have the same tragic consequences that syphilis does, it can lead to sterility in both men and women and result in chronic invalidism in the latter. It can cause blindness in infants passing through an infected birth canal. Estimates say that 20 percent of all blindness is due to VD.

Obstacles to Combating VD

A great obstacle to eradicating VD, it is said, is the unwillingness of physicians

in private practice to report cases, although required by law to do so. Eight cases out of nine are not reported, apparently to shield the patients.

Apathy is also a great obstacle, both on the part of the public and on the part of the medical profession. Most persons showing up at VD clinics seem little concerned about the seriousness of VD nor do they manifest feelings of shame. Some patients come back as often as six times in one year, each time with a fresh case of VD! As one physician quipped: "Bugs are not half as resistant to drugs as patients are to instruction on prevention."

The fact that VD organisms are becoming more resistant to antibiotics is also a major obstacle to eradicating VD. Some strains do not respond at all to drugs; those that do respond require 70 times as many units of penicillin as in the past—5,000,000 instead of 75,000!

Another obstacle is the way people move around. One prostitute in a period of six months had relations with 310 men whose homes were scattered over thirty-six states and three foreign countries!

Accounting for the Increase

Among the factors accounting for VD becoming pandemic is the birth-control pill. As a result people are discarding former contraceptive measures as well as becoming more promiscuous. However, doctors warn that women taking the pill are more susceptible to contracting gonorrhea.

Another factor is the increase in homosexuality. Homosexuals are more promiscuous than others and more reluctant to ask for treatment. One report showed that 35 percent of male syphilitic patients had at least one homosexual encounter.

Also accounting for the increase in VD is the use of drugs. For many, marijuana has a sexually stimulating effect. Alcohol

often has the same. In fact, three fifths of those contracting VD in Poland were drunk at the time!

But more than anything else, the pandemic of VD pollution is due to the breakdown of morals. Men no longer need to seek out prostitutes, since so many young women of their own acquaintance are willing partners. Popular music encourages immoral conduct. Commercialism stresses sex in advertising.

The Parents' Responsibility

In turn, permissiveness on the part of parents has contributed greatly to the breakdown of morals. One father even paid for his twelve-year-old son to have relations with a prostitute! While not many fathers will go that far, ever so many just take for granted that their children will have premarital sex relations. Thus one father boasted that when his two sons, fifteen and eighteen years of age, contracted VD there was no danger, for he had fully informed them about what to do in such a case! There was also the mother who told her daughter: "If you cannot bring yourself to tell me, all right. But you must be sure to get yourself treated if you ever get [VD], and try to stay away—you just must—from the crowd that gave it to you."

A popular health magazine would "safeguard" youth against VD pollution. How? By having parents agitate to have laws passed authorizing physicians to treat youths for VD without parental knowledge or consent in those states where such laws do not as yet exist; that would allow physicians to decide whether to inform parents, spouse or other close relatives of

a VD case, and that would ensure that no physician may be sued for such conduct!

What is needed are not such laws. Rather, to safeguard their children against sex pollution parents must begin early (before the age of six according to one authority) gradually to impart to their young certain facts of life. They must give them powerful reasons why certain actions are wrong and the harm that can result. To win the confidence of their children, parents must take an unselfish interest in them. If they would have their

children take them seriously, they must set the right example. Parents cannot hope to instill high moral standards in their children unless they are doing the best they can to live up to them themselves.

If parents show a genuine interest in and love for their children, they can more easily lay down rules for them and expect their children to obey willingly. Among such rules might be the forbidding of "sexy" dancing and not going on dates until they have marriage in mind and are prepared for its responsibilities.

The Responsibility of Youths

To erect safeguards against VD, youths must guard against the trend of engaging in a restless search for physical sensations as an end in themselves. Guard against seeking pleasurable sensations or thrills or 'kicks' by experimenting with drugs and by illicit sex relations. All this is really a rebelling of youths against the older generation. It has been said that few adolescents with VD seem to have good relations with their parents.

- ***Is God in Your Marriage?***
- ***Multiple Sclerosis—a Baffling Disease.***
- ***Why the Boom in Wigs?***

—In the next issue.

Indulging in sex outside of marriage exacts its price, and a heavy price it is—guilty conscience, lack of self-respect, unwanted pregnancies, abortions and VD pollution. A magazine for teen-age girls asks: "How then should a girl play it safe? How can she avoid the dangers of syphilis and gonorrhea, two diseases with such potentially tragic consequences?" This point is then made: "*The only sure way to avoid VD is not to have sexual intercourse.*" Of course! If there were no fornication and no adultery, there would be no VD pollution.

Sex Outside of Marriage

Wrong and Harmful

The Creator endowed mankind with the gifts of sex and procreation and He has the right to lay down laws as to how his gifts shall be used. His Word says: "Let marriage be honorable among all, and the marriage bed be without defilement, for God will judge fornicators and adulterers." (Heb. 13:4) Sex within the marriage arrangement is honorable and sacred; there is the only proper place for it. Man was not made to imitate the lower animals in following their instincts. The animals can do so without harm, but not man. Dogs do not get VD!

Clearly the Bible stresses that sex relations outside of marriage incur God's wrath. (Gal. 5:19-21; Matt. 15:18-20; 1 Cor. 6:9-11; Rev. 22:15) For those professing to be dedicated Christians to practice such loose conduct also results in being at enmity with God's congregation, being disfellowshipped or excommunicated therefrom. Indulging in loose sexual morals is also a sinning against the one with whom one has such relations, for it always takes two to commit fornication or adultery.—1 Cor. 5:1-13.

And because of the risk of VD pollu-

tion, one who indulges in illicit relations is also sinning against his own body. (1 Cor. 6:18) How graphically wise King Solomon describes the folly of such: "She has misled him by the abundance of her persuasiveness. By the smoothness of her lips she seduces him. All of a sudden he is going after her, like a bull that comes even to the slaughter, and just as if fettered for the discipline of a foolish man, until an arrow cleaves open his liver, just as a bird hastens into the trap, and he has not known that it involves his very soul."—Prov. 7:21-23.

There is the danger of lasting physical harm, not only to the body, but also to the chances of happiness in marriage. Keeping free from sex relations until marriage puts relations after marriage on a much higher plane. It makes it also more likely that each will remain true to the other. As has well been noted: "No sociological study has ever shown that premarital intercourse, or adultery, makes for happier marriage."

And not to be overlooked is the fact that illicit relations often are a sinning against the next generation. Last year in the United States nearly 300 cases of congenital syphilis were reported. And are not all the miscarriages, stillbirths, blindness and sterility caused by VD pollution also sins committed against those being born?

We cannot escape it. God's Word is true. It stamps sex relations outside of marriage as sin, and says that "the wages sin pays is death." It further warns: "Do not be misled: God is not one to be mocked. For 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, but he who is sowing with a view to the spirit will reap everlasting life from the spirit."—Rom. 6:23; Gal. 6:7, 8.

ALCOHOLIC BEVERAGES

—What Do You Know About Them?



BEEER, wine and whiskey are doubtless familiar to you as the names of common alcoholic beverages. But just what do these beverages have in common? How are they produced? And why is it that some persons are affected more adversely than others by the same quantity of alcoholic drinks?

From very remote times men have been making and drinking alcoholic beverages. Whether produced recently or centuries ago, all of these beverages have something in common. They can be termed alcoholic beverages because of containing ethyl alcohol, the product resulting from the fermentation of sugars and yeasts.

There are three basic types of alcoholic beverages: (1) malt beverages, (2) fermented fruit juices and (3) distilled li-

quors. Three different processes are involved in making them.

The Production of Alcoholic Beverages

Malt beverages, including beer and ale, are made by brewing cereal grains (often barley). The initial step in the brewing process is "malting." After having been softened sufficiently by being soaked in water, the grain is piled in heaps and allowed to sprout. When the sprouted root shoots are approximately three fourths the length of the kernels, the grain is subjected to a drying process. Thereafter the sprouts are removed. The malt (the grain without the sprouts) is stored for a period of four to eight weeks. During this time an enzyme known as diastase is released and the characteristic malt flavor comes into being. The enzyme diastase changes starch into sugar during the subsequent "mashing" process.

After the malt is ground up, mashing begins. Water and cereals (such as corn or rice) are added to the malt. This mixture is then heated and stirred continually. Solid matter settles when the stirring is stopped. The next step involves adding hops, that is, the dried flowers from the hop vine, and boiling the mixture. Finally, yeast is added to start the fermentation process, the conversion of sugar into alcohol. The finishing process includes aging, carbonating and filtering.

Wines are commonly produced by fermenting crushed grapes or their juice under controlled conditions. The stronger wines generally have had brandy added to them. Aromatized wines such as vermouth are wines to which aromatic herbs and spices have been added.

Distilled liquors are produced from a variety of grains, fruits and vegetables. In the production of whiskey, grain is soaked in hot water to make a mash. By adding malt, the starch in the grain is

changed into sugar. Yeast is added to cause the mixture to ferment, converting the sugar into alcohol. The mash is then distilled, that is, it is evaporated and then condensed. The condensed liquid, the whiskey, is usually aged in wooden barrels. The percentage of alcohol content is reduced by adding distilled water.

Other distilled liquors are brandy, gin, vodka and rum. Brandy is distilled from grape wine and allowed to age in wooden casks. Other fermented fruit juices may also be distilled to make brandy, or a fruit flavor may be added to grape brandy or to ethyl alcohol. Gin is distilled from grain, usually rye, and is flavored with juniper berries. Rum is distilled from sugarcane. Tasteless vodka is distilled from potatoes or grain. The various liqueurs and cordials are produced by adding sugar and certain flavorings to brandy or other spirits.

The distilled liquors have the greatest alcohol content. This is commonly measured in "proof." In the United States the proof figure is approximately double the percentage of alcohol by volume. Thus a 100-proof whiskey contains approximately 50 percent alcohol. By contrast, some beers may contain as little as 2 percent alcohol, but usually the alcohol content of beer is about 4 to 6 percent. The alcohol content of dry table wines does not exceed 14 percent.

Effects on the User

In view of the great difference in the alcohol content of various drinks, the user of alcoholic beverages wisely checks the label to ascertain the strength of the alcoholic beverage involved.

Any unusual behavior on the part of a person after his drinking alcoholic beverages is generally due to the amount of alcohol that has been absorbed into his bloodstream. As a considerable amount of blood reaches the brain, the alcohol be-

comes concentrated there. For this reason even small amounts of alcohol act as a depressant on the central nervous system.

Besides the amount of the beverage consumed and its alcohol content, a number of other factors will materially affect the concentration of alcohol in the bloodstream at any one time. These include the rate at which the alcoholic beverage is consumed, the rate at which the alcohol is absorbed into the bloodstream and the size of the drinker. Investigation has shown that a man of normal health weighing about 220 pounds can eliminate one sixth of an ounce of pure alcohol more per hour than a man weighing 150 pounds, provided that all other conditions are the same. So the effect of alcoholic beverages will usually be greater on persons of slight build.

As the system can eliminate only a certain amount of alcohol per hour, a person must be careful that the percentage of alcohol in his bloodstream does not become great enough to cause detrimental effects. If he chooses to drink, he can cooperate with his system by doing so in moderation. He can also slow down the rate at which alcohol is absorbed and thereby give the system time to eliminate the alcohol before a high concentration builds up in the bloodstream. He can do so by prolonging the time that he takes in drinking a small amount. Also, food in the stomach or liquids such as milk, cream and tomato juice slow down the rate of absorption. On the other hand, the carbon dioxide in carbonated beverages like soda speeds up the rate of absorption. That is why the effects from champagne are felt sooner than those from ordinary wine.

It has been found that beverages with an alcohol content of from 10 to 35 percent are absorbed fastest. Thus it would appear that the person who drinks whiskey (with its high alcohol content) and

immediately follows this up with beer (with its low alcohol content) produces a mixture in his stomach that will be absorbed faster into the bloodstream and have a more pronounced effect upon him than the whiskey alone.

Some Hazards

While the abuse of alcoholic beverages has posed problems from the time that man began producing them, the twentieth century has brought additional hazards into the picture. One of these is the extensive use of chemical additives in the production of alcoholic beverages. About five years ago, for example, a chemical additive was implicated in the deaths of fifty persons who regularly consumed a considerable quantity of beer. The additive was a cobalt salt. The beer had been treated with this additive so that it would hold and keep its "head" of foam.

Giving rise to further hazards is the fact that many persons use pills or drugs extensively. In numerous cases it is not known just how certain drugs affect the bloodstream. This makes it even more difficult to determine what effect such drugs have in combination with alcohol. Nevertheless, there are hazards. The book *Combined Effects of Alcohol and Other Drugs*, by Robert B. Forney and Francis W. Hughes, notes:

"Since the short-acting barbiturates are most popular for the induction and exten-

sion of nighttime sleep, a combined effect with alcohol might induce a dangerous or increased depth of sleep. This is especially hazardous to the unwary. These drugs are also used in sub-hypnotic dosages to produce daytime sedation or are used in combination with analgesics to enhance the latter drugs. A patient who has been prescribed a short-acting barbiturate to induce sleep or daytime sedation should be warned against the concurrent use of alcohol. In such circumstances, the usual sedative dose plus alcohol might produce a critical *addition* which would result in hypnosis or near hypnosis and create a potential condition fraught with danger for the individual to himself and society.

"Inadvertent suicides may occur with drug combinations such as barbiturates and alcohol. People with a penchant for taking medication and drinking may forget the amount of drug consumed and incautiously repeat a dose. Prior to sleep, confusion and amnesia may occur and encourage a reckless repetition of the dosage. Fatal amounts may easily be consumed before unconsciousness intervenes and an unplanned death is accomplished."

Aware of the danger of immoderate drinking, the Christian who uses alcoholic beverages appreciates the need for caution. He follows the wise counsel of the Bible: "Whether you are eating or drinking or doing anything else, do all things for God's glory." (1 Cor. 10:31) Yes, because their relationship to God is their primary concern, true Christians realize that they cannot really glorify God if their senses are confusingly dulled by immoderate use of alcohol.

Eating like a Bird

● It is commonly believed that birds require very little food to live. In fact, we may say of a person with a small appetite, "He eats like a bird." But the fact is that birds need to eat a lot to live. A chickadee was observed to eat over 5,500 cankerworm eggs in a day. A robin found and swallowed fifteen worms in an hour. And a flicker feasted on a daily menu of 3,000 ants!

Some young birds consume their own weight in food each day, continuing to do so until six weeks old. A young owl, for example, was observed to devour six mice at one time. So consider a bird's work of supplying, not only its own daily needs, but also food for a nest full of young ones!

WHO CAN HELP?

◆ If a person's heart is truly touched by the good news found in the Bible, he wants to help others have the marvelous hope of living in a paradise restored to earth. He does not need to know all there is in the Bible in order to help others. Neither does he have to be ideally equipped as a teacher. All sorts of limitations and problems can be overcome if one truly wants to help.

This is illustrated with the experience of a Spanish-speaking woman associated with a congregation of Jehovah's witnesses in New York city. Note who were willing and able to help her:

"I was a member of the Christian Spiritist Church. My husband is the 'Reverend' of this church. Many times Jehovah's witnesses came to my door to discuss the Bible with me. Often I flatly refused to speak with them. Or I would not open the door.

"One day an elderly man came to my door to witness to me from the Bible. He obviously was uneducated and could barely read. As I saw him struggling with his Bible, I was touched by his sincerity and invited him in. He explained that he was just learning to read; he had begun to associate with Jehovah's witnesses and they were teaching him to read and write. Humbly he apologized for not being able to read better. Yet he explained that he knew how urgent it was to preach the message being carried earth wide by Jehovah's witnesses and so he decided to preach as best he could. As he was so limited in his reading ability, I helped him look up the scriptures and I would read them aloud. Then he would comment on them as best he could.

"He invited me to study the Bible with

him. Moved by the sincerity he displayed in his preaching, I agreed. However, after one or two visits it was obvious that he *had not* yet learned to read sufficiently to be able to conduct a regular study of the Bible with me. He arranged for his wife to take up the study.

"On the first of her visits it was plain that here too there was a problem. She was advanced in age and could hardly hear. The study progressed slowly and I learned some points about God's kingdom. But there was a considerable barrier since she was almost deaf. Finally arrangements were made for another Witness to visit and study with me.

"Before long I saw the futility and unscripturalness of spiritistic practices. I decided that, to please God, I had to abandon the church that I had been attending. My husband protested, but I quietly asked why it was that he as the 'Reverend' had not been able to give me a solid foundation in the truth. Yet an elderly man, just learning to read, and his aged wife, almost deaf, had been able to convey what my husband had so long failed to do.

"Now I have dedicated my life to God and am helping others to learn the way of truth from his inspired Word."

If you too have been studying the Bible with Jehovah's witnesses or are learning of God's purposes by means of their publications, do you feel the urgency of helping others to learn what you have learned? Advanced age, inability to read fluently, deafness, youth, family responsibilities—none of these are insurmountable barriers. Will you answer the question "Who can help?" with a firm, "I can"?

"No Bible Study Is Really Ever Done"

◆ Dr. L. M. Muntingh, head of the department of Bible knowledge at the University of Stellenbosch in South Africa, commented on the question "Is theological study too long?" In *Die Kerkbode* (February 4, 1970, page 161), the official church magazine for the Dutch Reformed churches in South Africa, he wrote:

"During the entire course of seven years, no Bible study is really ever done, as every minister can testify. The result is that many a minister's knowledge of the Afrikaans Bible leaves much to be desired. The result is that his ministry suffers."

Okinawa

LIKE stepping-stones, some 140 small islands extend in a more than 700-mile arc between Japan and Taiwan. These are the Ryukyu Islands, although sometimes the whole group is called by the name of their prominent member—Okinawa.

About half the islands are uninhabited. Of the other half, Okinawa is the largest and most populous, with some 950,000 inhabitants. It is nearly seventy miles long, but only two to eighteen miles wide—its 453 square miles about equaling the size of Los Angeles. Thus Okinawa is one of the most densely populated places in the world.

To the east lies the vast Pacific Ocean, and to the west the East China Sea. Okinawans sit in "Typhoon Alley." Tempests spawned in the Pacific sweep by them on their way to the Asian mainland. One or two severe ones a year hit Okinawa, sometimes with winds of 190 miles per hour.

When East and West Met

The Ryukyuans are a blend of several races, particularly Chinese and Japanese. In 1879 Japan abolished the Ryukyuan monarchy and formally annexed the island as one of its *prefectures*, or provinces. Japanese became the official language, replacing the many Ryukyuan dialects, although some are still spoken.

A couple of generations ago Okinawa was practically an unknown land to Westerners. A few Westerners had visited. Commodore Matthew Perry used the island as a headquarters in 1853 while arranging a trade treaty between Japan and the United States. Some foreign missionaries had come, and occasionally a naturalist or explorer made a brief stopover. But



—WHERE EAST AND WEST MINGLE

By "Awake!" correspondent in Okinawa

that was about the extent of East-West contact.

Then came 1945, and the closing days of World War II. The Japanese were making on Okinawa a last desperate stand. On April 1 the American invasion began. During the next three months some of the fiercest fighting of the war took place, with Okinawans caught in between.

The casualties and devastation were staggering. Ninety percent of the population were made homeless, and over 10 percent killed. Some 560,000 soldiers and civilians were either killed or wounded! The southern part of the island was demolished, 95 percent of the buildings being destroyed. With good reason Okinawans call the battle "the typhoon of steel."

Mingling but Not Blending

From total devastation Naha, Okinawa's capital, has become a thriving metropolis of some 300,000 people. And the onetime farming village of Koza has grown into a city of around 70,000, larger than Naha was before the war.

Most buildings are constructed of concrete and are "typhoon proof," houses generally being but one story in height. However, hundreds of multistory apartment buildings have also been put up. Over 100,000 motor vehicles speed about the island, clogging city streets during rush hours.

So Westerners find here familiar sights, including many other Westerners. With the end of the war United States military personnel did not all leave—not by any means! Some 90,000 American servicemen and their dependents now live here. The United States has maintained in Okinawa one of history's most formidable military complexes, with over 120 installations. Fully one fourth of the island is taken up by military bases!

Although Okinawans are outgoing, the English-speaking foreign population has never been absorbed. The two cultures, like oil and water, flow side by side. They mingle, but have never blended. There is an American Okinawa and an Okinawan Okinawa. Few Okinawans have learned English, and most Americans, who live here only on a temporary basis, do not adopt the islanders' way of life.

For years there has been pressure for reversion of Okinawa to Japanese control. One reason for this is that Okinawans need land badly, and the United States controls so much of it. In 1953 the Amami Islands, a small northern group of the Ryukyus, were returned to Japan. Then on June 17, 1971, the United States signed a treaty to restore to Japan Okinawa and the other Ryukyu Islands. The reversion is expected to take place sometime in 1972. Thus after about twenty-seven years Japan is to regain the last territory she lost to the United States during World War II.

But this will not mean American withdrawal from Okinawa. The United States will keep eighty-eight military installations, and will continue to need a sizable crew to man them.

Blending of East and West

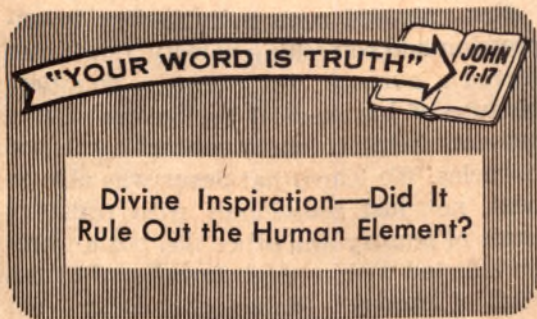
Maintenance of a powerful military base, including a reputed nuclear arsenal, has not been popular with Okinawans. They have experienced "the typhoon of steel,"

and military weaponry is not a pleasant reminder. Therefore the Bible promise that under God's administration peoples will "beat their swords into plowshares and their spears into pruning shears" is to many of them a pleasant message.—Mic. 4:3.

In 1952 there were none of Jehovah's witnesses in Okinawa preaching about the peace that God's kingdom will bring, but now there are over 500 of them. They meet regularly for study and association in eleven congregations. Meetings are conducted in Japanese in ten of these, but since 1968 there has also been an English-speaking congregation, now composed of over a hundred persons. This congregation calls on English-speaking people in Okinawa, and many persons have been contacted who have studied the Bible in other places. A number of these persons have been helped to make spiritual progress.

Although they meet separately in order to study the Bible in a familiar language, genuine cooperation exists between Japanese-speaking and English-speaking Witnesses. For example, at their assemblies, where more than 750 persons now attend, they work closely together to make these gatherings a success. Communication is largely with gestures, but the unity among them well demonstrates how people can live peacefully and happily together.

Others notice this unity to be in contrast to the disunity and confusion that abound here. In fact, when a Japanese-speaking and English-speaking congregation renovated an empty commercial building for use as a meeting place, the neighbors were so amazed to see the two groups working together that many came over to ask questions. Yes, these Okinawans from East and West do not only mingle, they blend into a united Christian family.



SECOND Timothy 3:16 declares: "All Scripture is inspired of God." God's holy spirit or active force served as the means or agency for this inspiration. As the apostle Peter explained: "Men spoke from God as they were borne along by holy spirit." (2 Pet. 1:21) Acknowledging the operation of God's spirit upon him, King David said: "The spirit of Jehovah it was that spoke by me, and his word was upon my tongue."—2 Sam. 23:2.

But does this mean that the men used to write the Holy Scriptures simply recorded dictated material? Other than the actual writing itself, was no effort required on their part in expressing God's message? Did their being inspired completely rule out personal warmth and individuality of expression?

Some parts of the Bible did involve just recording divinely supplied information. Included are the Ten Commandments and all the other laws and statutes of God's covenant with Israel. In connection with these laws, the prophet Moses was instructed: "Write down for yourself *these words*."—Ex. 34:27.

Similarly, other prophets at times received specific messages to deliver. On one occasion the prophet Jeremiah was told: "You must call out in the ears of Jerusalem, saying, 'This is what Jehovah has said: "I well remember, on your part, the loving-kindness of your youth, the love during your being engaged to marry, your

walking after me in the wilderness, in a land not sown with seed. Israel was something holy to Jehovah, the first yield to Him.''" (Jer. 2:2, 3) This message and others were later recorded, forming part of the inspired Scriptures.

On many occasions angels were used to transmit divine messages. In the case of these messages it was likewise a matter of simply recording the information conveyed. However, sometimes mention is made of the effect the angelic visit had on the beholder. Concerning Mary's reaction to the angel Gabriel's visit, the physician Luke wrote: "She was deeply disturbed at the saying and began to reason out what sort of greeting this might be." (Luke 1:29) Thus Luke had to use his own words in describing Mary's reaction.

Information was commonly revealed to Bible writers through dreams, visions or trances. Dreams evidently superimposed a picture of God's message or purpose on the mind of the sleeping person. In the case of visions God's thoughts were pictorially impressed upon the conscious mind. Some of these visions were received when the person had fallen into a trance. Though conscious, the individual apparently was so absorbed by the vision received during the trance as to be oblivious to all else around him.

When information was conveyed by means of dreams, visions or trances, the writer had to put forth effort to describe in meaningful terms what he had seen. A case in point is the book of Revelation. The information was presented to the apostle John through God's angel "in signs," and John was told: "What you see write in a scroll." (Rev. 1:1, 11) Likewise the prophet Habakkuk was directed: "Write down the vision, and set it out plainly upon tablets." (Hab. 2:2) Hence John, Habakkuk and others apparently had to use their mental faculties in se-

lecting words and expressions to describe the visions they saw.

But, in all cases, Jehovah God, by means of his spirit, exercised sufficient control and guidance over the writers so that the end product was accurate and also suited his purpose. As Proverbs 30:5 says: "Every saying of God is refined."

A considerable portion of the Bible deals with historical events, aspects common to human experience and things derived from the experience of individuals, families, tribes and nations. These sections were often the product of much personal research on the part of the writer. Regarding his efforts, the physician Luke remarks: "I have traced all things from the start with accuracy, to write them in logical order."—Luke 1:3.

Then, too, real effort was required in expressing the thoughts in a delightful manner. Noted the wise writer of Ecclesiastes, evidently the congregator King Solomon: "He pondered and made a thorough search, that he might arrange many proverbs in order. The congregator sought to find the delightful words and the writing of correct words of truth."—Eccl. 12:9, 10.

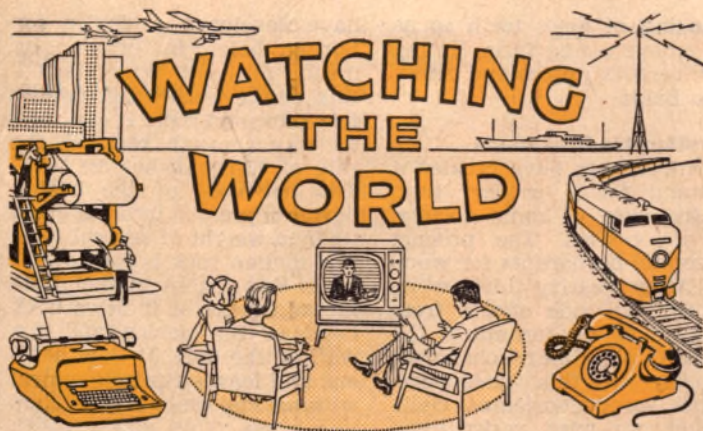
The fact that considerable personal effort was involved doubtless accounts for the different styles of writing apparent in the Bible. At times the personal background of the writer is notably reflected in the account. The natural qualifications of the writers may even have been a factor in God's selection of them for their particular assignment. Then, too, Jehovah God may have prepared these men earlier to serve his purpose.

Examples might be cited to illustrate individuality of expression. Matthew, a former tax collector, made numerous particularly specific references to numbers and money values. (Matt. 17:27; 26:15; 27:3) And the physician Luke's expressions reflect a medical background.

Not only did such individuality in expression add refreshing variety, but it also served a purpose. For example, doubtless because of his medical background, Luke presents helpful details concerning Jesus' miracles. We learn that Jesus was able to heal, not just individuals with ordinary cases of leprosy and other ills, but a woman afflicted with a "high fever" and a man "full of leprosy."—Luke 4:38; 5:12.

Even in recording what is stated to be the "word of Jehovah" or a certain "pronouncement," individuality of expression may also have been involved. Rather than being transmitted word for word, the "word" or message was perhaps conveyed by giving the writer a mental picture of God's purpose, one that the writer would thereafter be able to express in his own words. This may be indicated by the writers' speaking at times of 'seeing' (rather than 'hearing') the "pronouncement" or "word of Jehovah."—Isa. 13:1; Mic. 1:1; Hab. 1:1; 2:1, 2.

Thus divine inspiration did not rule out the human element. This quality gives the message of the Bible a warm appeal and delightful variety. The record pulsates with emotion. The writers were often personally involved or in some way affected by what they committed to writing. Hence, life is portrayed with a personal touch and as it actually is—its fears, disappointments, sorrows and joys. The Holy Scriptures deal with real people, enabling us to identify ourselves with them, including the writer. Like us, the people mentioned in the Bible made mistakes and experienced trials and afflictions. Yet many of them manifested unshakable faith in their Creator and a deep love for him. We can therefore draw encouragement from their fine example. And God's dealings with them give us assurance of his interest in us as humans. How grateful we can be to Jehovah God for this meaningful record!



Medical Help by Satellite

◆ An artificial satellite in stationary orbit 22,300 miles above the Pacific Ocean is being used to relay medical advice and information to twenty-six rural Alaskan villages. Storms and atmospheric phenomena often make regular radio communication impossible. Communicating by satellite eliminates this problem. Specialized medical institutions in Fairbanks and Anchorage can always be contacted by means of this satellite.

Cancer-causing Preservative

◆ A preservative put in many wines, draft beer and noncarbonated fruit drinks has been found by Swedish researchers to produce a cancer-causing side product. Although the preservative disappears within twenty-four hours after being put in the food, it can, by reacting with ammonia in these drinks, produce urethane. This chemical is well known for causing cancer, and furthermore it does not disappear as does the preservative. Since other food chemicals have also proved to be cancer causing, how wise is it to lace man's foods with a great variety of chemicals?

Population Growth

◆ In the past twenty years the human population of the

earth has increased by more than one thousand million, bringing the total to 3,632 thousand million. One third of this multitude lives in cities. That more people are moving into cities is evident from the fact that ten years ago there were 29 cities with a population of one million, but now there are 133 such cities. During the five years between 1965 and 1970 man's birth rate was two and one half times as great as his death rate.

Tattoo Remover

◆ A simple method for removing an unwanted tattoo has been developed by Dr. F. W. Crittenden, Jr., a U.S. Navy dermatologist. He rubs the tattoo with salt. Using sterile gauze pads that are moistened and dipped in salt, he rubs the tattoo until the skin bleeds. The surface skin is thus removed, and the oozing fluids carry away the pigments in the tattoo. The wound is dressed and a scab forms over the wound. When the scab falls off, a picture of the tattoo can be seen in the scab.

British Baptists Declining

◆ Membership in Baptist churches in Britain has declined 14 percent during the past ten years. Over the past 30 years the decline has been 30 percent. On the basis of these figures, *The Christian*

Century of December 22, 1971, raised the question, "Is there a future for the Baptist denomination in Britain?"

Aging Smokers

◆ According to a study made by Dr. Harry W. Daniell, of Redding, California, smoking actually ages a person faster than normal. After studying 1,100 persons, he found that facial wrinkles, especially those around the eyes, were deeper among persons who smoke than among nonsmokers. He observed: "In every age group, the subjects with progressively higher wrinkle scores included progressively larger percentages of smokers. And the most heavily wrinkled class in each age group was composed entirely of smokers." Those smokers in their forties had facial wrinkling equivalent to that of nonsmokers twenty years older.

Catholic Schools with

Non-Catholic Students

◆ Due to the exodus of white people from American cities to the suburbs and the influx of black people to the cities a change is occurring in many Catholic schools. They are becoming predominantly black and non-Catholic. Two hundred Catholic parochial schools in large cities have experienced this change. There are thirty-three parochial elementary schools in Chicago with student bodies ranging from 20 to 75 percent non-Catholic. A parochial school in Pittsburgh is 90 percent non-Catholic and has a non-Catholic principal.

Making Roads from Garbage

◆ A section of highway was paved with material that contained composted household refuse along with the usual asphalt, sand and stone mixture. The experiment proved the mixture to be durable. Cracks and potholes in the ordinary highway material ended abruptly where the new com-

position began. In another experiment two industrial waste products—calcium sulfate and fly ash—were mixed with reclaimed rubber, reclaimed bottles, garbage, lime and water to make a surfacing material that was used to surface one hundred acres of roads and parking lots at Dulles International Airport near Washington, D.C.

Danger of Factory Noises

◆ According to the *Times* of London, the Production Engineering Research Association warned that the majority of factories are too noisy and therefore a health hazard. It stated that one's hearing is temporarily impaired after working for only one day in a noisy factory. "Next day," it said, "if full hearing has not returned, the machines seem to be quieter. For the time being the effect is temporary. Eventually the day comes when hearing loss starts to become permanent."

Brain Damage

◆ A team of British doctors reported that they found irreversible shrinking of brain tissue in ten men who had smoked marijuana for from three to eleven years. Such atrophy of brain tissue produces such symptoms as memory loss for recent events, changes in personality, changes in temperament, decreased desire to work and diminished clarity of thought.

Saving Teeth

◆ A person can easily lose his teeth by failing to keep them clean. Such neglect results in periodontal disease, which causes the gums and bone that support the teeth to give way, allowing the teeth to fall out. It is reported that because of this disease half of the Americans who reach the age of fifty-five have lost all their teeth. The best prevention is thorough and daily

brushing of one's teeth so as to remove the bacteria. Eating raw carrots, apples and celery also helps.

Questionable Deodorants

◆ Advertisers have created a demand for a product that, in the view of some doctors, is not needed. The product is genital deodorants for women. After treating thirty women for bad side effects from using such deodorants, a Canadian physician observed: "Surely in this gadget-conscious, product-oriented civilization, we must resist those instances where a demand is being artificially created for a product of questionable value. This is especially true where even the minimal advantage can be more than outweighed by significant complications." It is especially dangerous to apply these deodorants to the delicate mucous membranes of the vagina. The magazine *Consumer Reports* remarked that "there is always a risk involved in spraying chemicals on the body, especially on such sensitive areas as the genitals." It recommends using just plain soap and water.

Is Your Can Opener

Poisoning You?

◆ The handy device hanging on the walls of kitchens in restaurants and in homes that quickly cuts off the tops of cans may be a source of food poisoning. It is easy to forget that this device needs to be cleaned just as much as pots and pans. Food from canned food accumulates on the cutting wheel and becomes a fine culture for bacteria. When an Illinois doctor obtained residue samples from the cutting wheel of can openers in thirty-eight restaurants, he found every blade to be infested with undesirable bacteria.

Boring by Heat

◆ Atomic scientists at the Los Alamos Scientific Laboratory

have developed a device for boring holes in granite by means of heat. When tested, this device penetrated twelve feet into solid rock. It can melt its way through rock at the rate of thirty inches an hour. The hot nose of the boring device is pressed into the granite by a weight of several tons. The molten rock is forced into pores and cracks in the granite, and some of it flows back between the device and the wall of the hole. It then hardens and leaves the hole walled with an impermeable obsidian-like glass. This glass sheath has such great strength that no concrete lining is needed. It is hoped that a model large enough for boring vehicular tunnels can be developed.

Stopping Hiccups

◆ Once started, hiccups are sometimes difficult to stop. Three American doctors who were confronted with twenty patients who had tried unsuccessfully all the old standby remedies for hiccups decided to try sugar. When the patients swallowed dry one teaspoon of ordinary granulated sugar, the hiccups stopped. Eight of the patients had been suffering from hiccups from twenty-four hours to six weeks.

Evolution Is Illogical

◆ In a paper delivered at a meeting of the American Association of Science, Professor John N. Moore of Michigan State University charged that Darwin's theory of evolution is "more illogical than biological." He argued that there is no scientific backing for the theory. He called it an "incredible religion," not a science. He believes evolution should be taught as a theory and not as fact.

Insect-killing Garlic

◆ Two chemicals have been extracted from garlic that have

been 100 percent effective in killing the larvae of the Culex mosquito in a laboratory. It is hoped by the two researchers in India who discovered the chemicals that they will be a harmless substitute for DDT. The chemicals were effective in concentrations as low as five parts per million.

Antiseptic Skin

◆ In a report to the Society for Investigative Dermatology, Dr. Raza Aly and his associates revealed the results of an experiment that indicates the human skin to have a natural antimicrobial substance. Staph microorganisms applied to unwashed forearms decreased considerably in numbers in five hours, whereas similar microorganisms placed on other forearms that had been first washed with acetone had increased from two to 510

times. The California doctor questioned the wisdom of using powerful antibacterial cleansers and deodorant soaps, as they might be washing away the natural protective agent on the skin.

Canadian Crime on Rise

◆ Canada is seeing an escalating of crime. In the past five years the rate of murder has gone up 53 percent, and there have been twice as many attempts at murder. Assaults were up 52 percent, robberies soared 83 percent and rape climbed 48 percent. Commenting about this, *The Toronto Star* of November 16, 1971, urged Canadians to begin coping with this situation before their cities become "like many American cities, [where] it is unsafe to walk alone at night and where the citizens, knowing themselves to be with-

out real protection from violence by their constituted authorities, will take the law into their own hands in the form of guns."

Drug-sniffing Dogs

◆ The U.S. Bureau of Customs has been using dogs with good success in locating illegal drugs. They were first introduced on a wide scale in 1970, and in the course of one year their sensitive noses located more than 13,000 pounds of marijuana, 650 pounds of hashish, 4,000 marijuana cigarettes, 35 pounds of opium and 300 grams of heroin. A trained dog can quickly sniff his way down a conveyor belt filled with packages and spot a package containing illegal drugs. It is said to be almost impossible to get marijuana and hashish past him.



YOU CAN ANSWER YOUR CHILDREN'S QUESTIONS

Whether the questions are about the Bible, morals, marriage, science or some other subject, you can find helpful information in the publications of the Watch Tower Society.

Locating such information is easy when you have the **Watch Tower Publications Index 1966-1970** and the **Index for 1971**. They have specific information indexed by subject and explanations of Bible texts indexed by each scripture. Send only \$1.10.

WATCHTOWER

117 ADAMS ST.

BROOKLYN, N.Y. 11201

Please send me (check which): ☐ the *Watch Tower Publications Index 1966-1970* (\$1.00);
☐ the *Index for 1971* (10 cents). I enclose \$.....

Name

Number and Street
or Route and Box

City

State Zip Code

FEBRUARY 8, 1972

31



MEN AND ANIMALS AT PEACE WITH ONE ANOTHER

This may seem impossible, but it is certain to become a reality.

Men will also live in peace, never again killing one another in warfare or in acts of crime.

The ruining of the earth by man will stop, and it will be beautified into a paradise.

These things were foretold by man's Creator. Learn about the marvelous future God has purposed for the earth and for mankind. Learn how you can share in that future.

The Watchtower magazine can help you to have faith in these promises of God and guide you in the way that leads to life in that coming new order. Have *The Watchtower* coming into your home regularly, twice a month. Send only \$1.50.



WATCHTOWER 117 ADAMS ST. BROOKLYN, N.Y. 11201

Please send me *The Watchtower* for one year for which I enclose \$1.50. Send also the gift booklets: "Look! I Am Making All Things New," *The Approaching Peace of a Thousand Years* and *When All Nations Collide, Head On, with God*.

Name

Number and Street
or Route and Box

City

State Zip Code

In: AUSTRALIA: 11 Beresford Rd., Strathfield, N.S.W. ENGLAND: The Ridgeway, London N.W. 7.
CANADA: 150 Bridgeland Ave., Toronto 390, Ont. SO. AFRICA: Private Bag 2, P.O. Elandsfontein, Transvaal.