

GENERAL SCIENCE

Biblical Flying Saucers

► FLYING SAUCERS, much in the news during recent months, have been seen throughout the ages. There was a flying saucer scare in 1897, a great cigar-shaped saucer was seen in 1882, and thousands of years ago the Hebrew prophet Ezekiel witnessed flying saucers.

Dr. Donald H. Menzel, professor of astrophysics at Harvard College Observatory, reports that the prophet Ezekiel was a top-flight scientific observer and recorder of important meteorological phenomena. A detailed study of the Biblical text describing his vision of wheels within wheels indicates he was observing the well-known solar halos complete with mock suns and "glories," a phenomenon produced by ice crystals in the sky.

The "four living creatures" would have to be mock suns, Dr. Menzel states. The arms of the cross, centered on the sun, probably looked like the spokes of a wheel and each bright spoke formed the body of a figure with the mock sun itself representing the head.

On the night of Nov. 17, 1882, one of the greatest flying saucers of modern times sped across the heavens. This cigar-shaped affair was the best-observed flying saucer in history as a number of distinguished scientists

reported having seen it. The apparition was probably an auroral display or associated with it, Dr. Menzel points out, for high magnetic activity was recorded then.

Some 55 years ago, before airplanes began to fly and shortly before dirigible balloons came into being, the inhabitants of Oakland, Calif., spotted flying above them a sort of winged cigar, projecting a stream of brilliant light from its head. It was reported as moving rapidly, "going at least 20 miles an hour."

This earliest version of the airship is stated to have gradually moved east. Several months later it apparently reached Salt Lake City, then Denver, Omaha and Kansas City. Many claimed to have seen it or to have known someone who had constructed it or flown it. Pictures claimed to have been taken from the machine while in the air were shown and a letter reportedly dropped from it was found. It was the electrical wizard Thomas A. Edison who broke this airship bubble.

Other early examples of flying saucers and their probable explanation in the light of modern scientific knowledge are given in Dr. Menzel's book, "Flying Saucers." (See SNL, Feb. 28, p. 140.)

Science News Letter, March 7, 1953

MEDICINE

Gene Stuff Is Virus-Like

► A VIRUS-LIKE action of cancer cell gene material has been discovered by Drs. Abraham Cantarow, Joseph Stasney and Karl E. Paschkis of Jefferson Medical College, Philadelphia.

The finding was made when these scientists succeeded in inducing lymphatic cancers in rats by injecting gene material from cancer cells. The American Cancer Society, which announced the finding, describes the work as follows:

The scientists extracted the gene material by mincing the cells, spinning the mince at different speeds and separating the spun down portions. They tested the homogenate against the presence of whole cells by pipetting into it 100 whole cells. Because they could detect each of the hundred cells—and no others—in the mince, they were convinced that similar minces had no cells.

When they injected the gene mince under the skins of rats, about 40% of the animals quickly developed cancers of the lymphatic tissues.

Now the scientists have found that the 60% which did not develop cancer when treated with the mince do not develop it when they are injected with whole cancer cells either. They seem to be rendered resistant to this type of cancer.

They also have found that some of the animals develop cancer only for a short

period. Then the cancer disappears. When the rats again are injected either with mince or whole cells, they prove immune. No sign of cancer arises from the second treatment.

The scientists now are trying to separate out of the mince the specific chemical substances responsible for production of the cancer.

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GEOPHYSICS

Rock "Flow" Process Duplicated in Laboratory

► THE PROCESS by which heat and pressure, deep within the earth's crust, deform rocks and cause them to "flow" has been duplicated for the first time at the University of California at Los Angeles.

Long a puzzle to geologists, the mechanism of deformation was found by David Griggs, Hugh Heard and Norman Coles. Their experiments were performed at temperatures up to 750 degrees Fahrenheit and at pressures of 75,000 pounds per square inch, conditions approximating those at a depth of 10 miles in the earth's crust.

The research indicates that the mechanism of deformation in marble involves two processes: 1. shearing within the individual

crystals without loss of cohesion, and 2. displacement at the boundaries of crystal grains by recrystallization, a molecular action similar to melting and refreezing.

Previous laboratory deformations of marble have been accomplished, Prof. Griggs points out, but this is the first time crystalline structure has indicated laboratory processes have approximately duplicated natural ones.

This is borne out in microscopic studies of thin sections of the marble by Dr. Frank Turner and Iris Borg of the University of California, Berkeley. These reveal a crystalline structure very similar to that of rocks deformed in nature.

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