

have so far been spotted, thus making the chances for control good.

Forest pathologists estimate that the disease has been present in the United States perhaps 25 to 40 years, although the fungus causing it was not isolated until 1944. If the killer were native to the United States, all oak trees would probably have been dead long ago. The infection in the Ozark region is believed to be about eight to ten years old, having been ravaging there for some time before it was identified as oak wilt.

Science News Letter, May 3, 1952

ASTRONOMY

**Spot 1952's Fourth Exploding Star**

➤ THE FOURTH exploding star to be spotted this year by Dr. Guillermo Haro, director of Mexico's National Astrophysical Observatory, Tonanzintla, Puebla, has just been found in the southern constellation of Scorpius. The nova is of the 11th magnitude and thus quite faint. News of its discovery has just reached Harvard College Observatory, Cambridge, Mass., clearing house for astronomical information in the western hemisphere.

Science News Letter, May 3, 1952

GENERAL SCIENCE

**Conant Wants Taxpayers' Advocate to Fight Projects**

➤ A TAXPAYERS' advocate in the Defense Department, who would provide forced opposition to new projects, would insure that the taxpayers' money would be more wisely spent, according to Harvard President James B. Conant.

In the third of a series of Bampton Lectures at Columbia University in New York, Dr. Conant said: "There should be arguments against the proposal, they should be vigorous but candid; a technical expert should speak on behalf of the taxpayer against each large proposal."

With opposing briefs, arguments, and cross-questioning, he went on, many facets of the problem would be brought out into the open. Dr. Conant suggested that the opposition expert be either a civilian or a retired officer.

Dr. Conant pointed out that such procedures for balancing the bias of technical men, particularly scientists turned inventors, have been worked out almost without plan in the successful industries of this nation. He advocated similar methods of operating in other areas, including the government.

In government, he said, they are particularly needed because government has entered research and development on a very large scale indeed.

Science News Letter, May 3, 1952

GENERAL SCIENCE

**Seeds of Future Progress**

Although often rejected by scientists who prefer to cling to existing modes of thought, unorthodox ideas can be basis of progress.

➤ STRANGE AND unconventional new ideas in science, greeted with hostility by most scientists, may actually contain seeds of future progress. But the hurdle of the acceptable and the orthodox in science can be counted on to screen out all but well-substantiated new ideas.

These are the conclusions of Dr. I. Bernard Cohen, Harvard expert in the history of science and one of a panel of five scientists who discussed "Some Unorthodoxies of Modern Science" at the meeting of the American Philosophical Society in Philadelphia.

They discussed Dr. Immanuel Velikovsky's theories of worlds in collision and ages in chaos, dowsing or the finding of water through use of a forked stick, and extra-sensory perception.

None of the scientists agreed with any of the unorthodoxies or even with the methods by which the unorthodox try to prove their theories. But in opening the meeting, Dr. Cohen pointed out that most of the great revolutionary scientific theories, hypotheses and even announcements of new effects have met with hostility on the part of those who preferred to cling to existing modes of thought.

This does not mean, however, Dr. Edwin G. Boring, Harvard psychologist, declared, that orthodoxy must be swept aside.

"Orthodoxy in science at any moment in the history of science," he declared, "is the agreement of the experts . . . When observations conflict, then scientific truth has for the time being to be set in accordance with the weight of the evidence, for you have to suspend judgment about an unorthodox belief when that belief contradicts a large body of accepted consistent scientific fact."

Dr. Cohen praised the "inertia of orthodoxy" as a legitimate hurdle which acts as a screen permitting only useful and well-substantiated ideas to pass. There may be delays in this method, he said, but there would be difficulty in conceiving the true progress of the sciences without the restraining bond of orthodoxy.

Dr. John L. Kennedy, senior social scientist of the Rand Corporation, Santa Monica, Calif., discussed extra-sensory perception and found many problems of experimental control in the work at Duke University. His paper was read by Dr. Leonard Carmichael, president of Tufts College and new secretary of the Smithsonian Institution.

Dr. Cecelia Payne-Gaposchkin, Harvard astronomer, discussed the Velikovsky hy-

pothesis. Her paper was read by Dr. Donald H. Menzel, professor of astrophysics at Harvard.

Dr. Thomas M. Riddick, consulting engineer and chemist of New York, concluded about dowsing that it does not seriously threaten to shake the present foundations of society.

Science News Letter, May 3, 1952

VOLCANOLOGY

**Volcano Collapsed 25,000 Years Ago**

➤ A COLLAPSED volcano is the cause of the mile-wide hole in the earth's surface known as Crater Elegante, about 30 airline miles south of the Arizona border in northern Sonora, Mexico.

The vast rock heap shuddered and fell into the earth like a piston dropping in an almost circular cylinder, Dr. Richard H. Jahns, geologist at the California Institute of Technology, Pasadena, reported.

The history of the volcano, which disappeared from the skyline possibly some 25,000 years ago, is written on the walls of the huge circular cavity and was reconstructed by Dr. Jahns. The crater is about a mile in diameter and the maximum depth of its flat floor is 800 feet.

Conspicuous on its walls is a great thickness of cliff-making basalt, a dark fine-grained rock of volcanic origin. Above the basalt flows are black and red cinders topped by sedimentary beds.

Science News Letter, May 3, 1952

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