

GEOPHYSICS

Experts Foresaw Quake

In a Science Service Grand Jury, almost two-thirds of the leading earth scientists questioned agreed a major earthquake was coming in California "in the near future."

► THE EARTHQUAKE that shook the downtown section of San Francisco on March 22 was foreseen as occurring "in the near future" by nearly two-thirds of the country's leading geophysicists.

In a Science Service Grand Jury inquiry, 50 top seismologists, geologists and geophysicists in the United States and Canada were asked, "Will California experience a potentially major destructive earthquake in the near future?"

Of the 32 who responded to the poll, 63% (20) said yes; 10% (3) said no; and 9 did not vote on this question.

In their comments, most of the scientists agreed that a major earthquake was coming, but pointed out that there is no known method for predicting when it would occur.

One said: "The San Andreas Fault zone has a history of important movement on a 50-year cycle, approximately. The recent heavy Nevada quakes (1954) have undoubtedly set up some type of strain affecting the San Andreas."

The San Andreas fault is a crack in the earth's surface that slices through California and Mexico. A slow horizontal creeping of one or two inches per year has recently been measured along it.

The second question, to be answered by those who replied "yes" to the first question, asked whether the potentially major destructive earthquake was "likely to occur before the end of 1957?"

Only two of the 14 who answered this question said "yes." Most of those who did not answer the question emphasized that earthquakes did not occur with any predictable regularity.

One pointed out that the "near future" should be interpreted as in "the next decade," and noted that it "would not be surprising if an earthquake" did not occur for a generation; and again several might occur in as many years.

Another seismologist argued strongly against the idea of discussing the possibility of a California quake "very much," pointing out that it would cause needless worry. He said it should be emphasized that San Francisco will never have a repetition of the 1906 quake because knowledge of earthquakes has been put to use in a "very practical building code which will in great measure prevent serious damage."

Another scientist, objecting to the questions, said, "California suffers a major earthquake about every three years. But who can tell when the next one will occur. Will you die in 1957? This is about the same sort of question."

After noting that previous earthquakes

in San Francisco have occurred about once every 50 years, in 1857, 1906 and 1940, one scientist said it is "probable but not certain that there will be another this century."

The precautions that should be taken to lessen property loss and fatalities from an earthquake were suggested by another scientist answering the poll. He urged local governments to make disaster plans and to be prepared to put them into effect at any time and without delay.

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MEDICINE

Diabetic Pills Effective If Patient Has Pancreas

► DIABETIC PILLS to replace insulin shots will be effective only if the pancreas is present in the diabetic patient, Dr. Auguste Loubatieres, Institut de Biologie, Montpellier, France, reported to an international conference on diabetes, sponsored by the New York Academy of Sciences.

Diabetic patients can be divided into three groups, he said. They are those that can be helped by the tablets; those who are partially helped; and those who are not helped.

The favorable results seem to depend "on the quantity of active insulin-producing cells in the pancreas and the amount of insulin in the body."

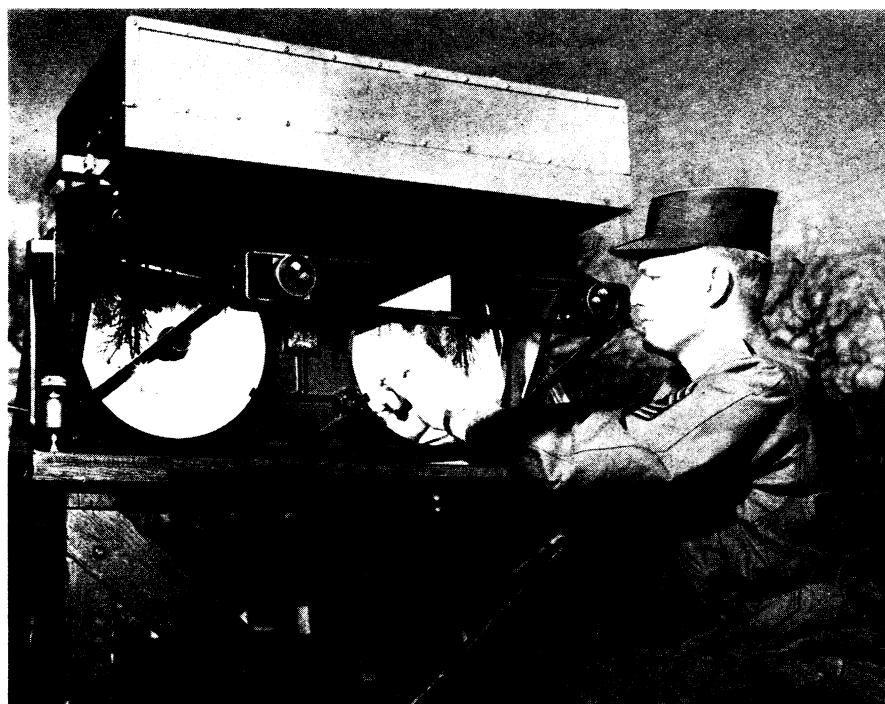
Three other researchers reported that one of the new pills, trade-named Orinase, had been "uniformly successful" in reducing sugar levels in the blood of two types of diabetics. Drs. John Moorhouse, Robert Kark and D. D. Gellman, University of Illinois College of Medicine, said they were unable to confirm the theory that Orinase might act by stimulating the pancreatic tissue that produces insulin.

This theory was supported by a report that tablets of the new sulfonylurea drugs, which are chemically related to the sulfa drugs, produce an increase in the weight of the insulin-producing cells of the pancreas of test animals.

The report was made by Dr. G. A. Wrenshall of the Charles H. Best Institute of Toronto, Canada.

Another theory to account for the effect of the drugs is that they stimulate the release or production of sugar in the liver. This was advanced by a research group from Harvard Medical School, Boston, headed by Dr. Albert E. Renold, and by Dr. Martha Vaughan, National Heart Institute, Bethesda, Md.

Science News Letter, April 6, 1957



FOR MILITARY SURVEYING—A geodimeter used in military surveying is operated by an enlisted technician at the Army Engineers Research and Development Laboratories, Fort Belvoir, Va., where it was developed. It is an electronic-optical instrument which gives precise measurements using the velocity of light as the fundamental constant.