

SEISMOLOGY

Quake Prediction Foreseen

THE U. S. Coast and Geodetic Survey plans to furnish standard seismological equipment worth \$500,000 to 20 of their 25 seismological stations in the United States and 30 stations in foreign countries cooperating with the U. S. on earthquake information, a seismologist reported. The hoped result:

We may someday know ahead of time when and where destructive earthquakes will hit.

R. J. Brazee, chief of the seismological investigation section of the Survey, said that each unit of equipment will cost about \$10,000. The equipment for distribution in the U. S. will likely be given to stations already in existence although there is a possibility that new stations may be created.

The new standard equipment will be part of the epicenter location program—the epicenter is the focal point where an earthquake originates. The money has already been allotted for the equipment, Mr. Brazee said.

He said that the aim of this program will be to locate the epicenters of more earthquakes and get enough data on them to be able to predict when earthquakes will occur.

The equipment to foreign countries the world over will be for stations already in operation but in need of standard equipment as well as for possible new stations.

The equipment will be given to these countries without "strings attached," Mr. Brazee said. However, it is expected that these stations will cooperate, as many already do, with the U. S. seismological network.

Mr. Brazee said that the U. S. Coast and Geodetic Survey has 25 stations operating in the U. S. at present. In addition, this country has from 75 to 80 private seismological stations in operation.

These are mostly located in universities throughout the country. They cooperate in sending information on earthquakes to the Survey in Washington, D. C., the main center for this type of information in the U. S.

The sites in foreign countries to get the standard equipment have not yet been picked. Equipment will most likely go to the countries that have a good deal of earthquake activity or do a lot of seismological research. The standard equipment is used both for locating earthquake epicenters and for basic seismological research.

At the present, the U. S. gets information on earthquakes from about 300 cooperating stations all over the world, Mr. Brazee said. He added that there are some 600 stations in the world, all told.

He estimated that there are up to about 1,000,000 earthquakes a year the world over. Out of these the U. S. Coast and Geodetic Survey gets reports of about 40,000. From these 40,000, the epicenter of only 1,500 is actually pinpointed by the Survey.

The Survey at present has an IBM system by which it processes the data as received. When these data are fed into the ma-

chine it delivers the location of 40 epicenters in about two and a half hours. Mr. Brazee said that when better equipment is installed in stations all over the world, more exact information will be available. He estimated that the Survey will then be able to locate 4,000 to 5,000 earthquakes a year, compared to the 1,500 they can pinpoint today.

Science News Letter, June 25, 1960

DERMATOLOGY

Sunburn Can Make Vessels Abnormal

AFTER A SINGLE, moderately severe sunburn, blood vessels are abnormal for four to 15 months, Dr. William Becker Jr. of the University of Illinois has reported. Writing in GP magazine, June, 1960, published monthly by the American Academy of General Practice, he reports plain vanishing cream, containing 10% para-aminobenzoic acid, gives 30 times more protection than many commercial products.

Dr. Becker says sunlight does have beneficial effects, in spite of the dangers of over-exposure, which include skin aging and cancer. Sunlight produces vitamin D in the skin and causes an unexplained drop in blood pressure and serum cholesterol. But the skin color may become a yellowish or blotchy brown after prolonged exposure.

Science News Letter, June 25, 1960

PSYCHOLOGY

Inability to Stand Tension May Cause Addictions

ADDICTION TO DRUGS, alcohol or food may stem from inability to tolerate tensions, Drs. Alvin Rosen and I. Jay Oberman of the Philadelphia College of Osteopathy reported. They said the actions of an addict are directed toward the relief of

pain, frustration and tension. Writing in the Journal of the American Osteopathic Association, May, 1960, they said addiction is a response to the simple human desires to have pleasure, avoid pain, feel good and happy, and have peace of mind. In his attempts to fill these needs something "goes wrong" with the addict.

Science News Letter, June 25, 1960

ARCHAEOLOGY

Find Remains of City In Which No One Lived

REMAINS of a big ancient city in which no one ever lived was found by a party of scientists from the American Museum of Natural History in New York. The city extends for more than eight miles along the Porali River in western Pakistan.

The city, known to natives of the region as "City of Light," was not a ghost city in the sense that it had been abandoned. The only buildings in it were temples and other places of worship. It was really a twin site, the older of the two dating back as much as 4,000 years. Although no one lived in the city it was a sacred center visited by worshippers who traveled to it from places hundreds of miles away because no shrine like it has been found for hundreds of miles around.

Mud bricks of which the ancient buildings were constructed are no longer in place but stone foundations four to five feet tall and stone streets, floors, steps, ramps and wells are still in place. They are made of carefully fitted river boulders.

The newer of the twin cities is marked with puzzling circles some as large as 40 feet across and standing four feet high. One structure in the older city is 87 feet wide and 234 feet long. It has five entrances and seven rooms.

The expedition was under the direction of Dr. Walter A. Fairservis Jr. and the digging was done with the cooperation of Dr. F. A. Khan of the Pakistan department of archaeology.

Science News Letter, June 25, 1960



ANCIENT CITY—Aerial view of building remains from 2000 B.C. recently found in Pakistan.