

SEISMOLOGY

Ship at Sea Pitched About Over Quake Epicenter

THE EARTHQUAKE that caused heavy damage and loss of life in Oaxaca, Mexico, and surrounding towns on the night of Wednesday, Jan. 14, also gave a severe shaking to a ship at sea near its epicenter. A bulletin of the Hydrographic Office of the U. S. Navy, just issued, contains a report from Capt. W. H. Wilder of the American steamer Kekoskee.

The disturbance, Capt. Wilder states, lasted about one and a quarter minutes, during which the vessel pitched, racked and strained violently. There was such a heavy, grinding sound that the master at first imagined that his ship had stranded on an uncharted rock or shoal. Soundings, however, went to 160 fathoms and failed to find bottom.

The position of the ship at the time, in latitude 15 degrees 38 minutes north, longitude 96 degrees 6 minutes west, corresponded very closely to the position of the epicenter of the Oaxaca earthquake, latitude 16 degrees north, longitude 96 degrees west, as determined by the U. S. Coast and Geodetic Survey from data collected by Science Service.

This epicenter position was announced by Science Service, with the prediction that heavy damage would be reported from the Oaxaca region, while news dispatches were still concerned wholly with disturbances in Mexico City, which was remote from the principal scene of earthquake action. Several hours later, repaired telegraph lines confirmed the prediction. Further confirmation of the epicenter is now furnished by the report of Capt. Wilder.

Science News Letter, February 14, 1931

NUTRITION

Intoxicating Drink Found To Save Race in Mexico

PULQUE, a Mexican drink inherited from prehistoric times and for which prohibition has been urged because it is blamed for the degeneracy of the Indian, may have been keeping him alive this long, a nutritional investigation seems to indicate.

Under the direction of Dr. José Zozaya, director of the Hygienic Institute of Mexico City, studies are being made for the first time on foodstuffs used by the native population. The

first material thus investigated was pulque, and the results show that this slightly intoxicating liquor is extremely rich in yeasts. The native diet on the central plateau where pulque is the great drink, consists mainly of chili, beans, and corn, an unbalanced and incomplete ration in the light of what is now known of man's requirements.

Because of such a diet, rickets should be the prevalent disease of that region, but curiously enough, crooked bones are rare, and in spite of extremely unhygienic living conditions those that survive the infectious diseases of childhood grow surprisingly strong. The strong back of the pulque-drinker supplies most of the transportation in rural Mexico. Indian babies are often weaned on pulque, and as soon as they can walk they consume chili that would make a strong man cry.

What part "alpine" sunlight on the high Mexican plateau plays in the prevention of Indian rickets is not known, but Dr. Zozaya is convinced that pulque, with its plentiful yeasts rich in the vitamins and amino acids that corn and beans lack, has probably served to keep the race alive, rather than killing it off. He finds that in spite of the very bad water supply of many pulque haciendas, intestinal infections there are rare.

Pulque is the fermented juice of the maguey, or century plant, which with the cactus is the most characteristic object on the Mexican landscape of the central plateau. Because of its undoubted nutritional value, as well as the enormous capital invested in the industry, Dr. Zozaya believes a hygienic control of the industry is what is indicated at this time, rather than prohibition.

Science News Letter, February 14, 1931

ARCHAEOLOGY

Museum Publishes Rare Document on Maya

A HITHERTO unstudied document, telling about the customs of the Mayan Indians and the geography of their tropical homeland in Yucatan, is an important historical work now being published by the Mérida museum, Yucatan.

The original document was discovered only recently in the archives of the British Museum. It was written in 1636 by Francisco Cárdenas Valencia, and consists of a report describing the Spanish campaign to convert the natives of the Mayan country to Christianity.

Science News Letter, February 14, 1931

IN SCIENCE

ARCHAEOLOGY

Soldiers Find Gods Of Aztec Days

ROAD BUILDING soldiers excavating in the dry lake bottom between Mexico City and Texcoco have come upon ruins of an Aztec wall and three red volcanic-rock idols of Quetzalcoatl, feathered snake god of prehistoric America. One idol represents him as the Wind God, with his snout extended, blowing or snorting.

In addition to these Aztec remains, the site is also rich in vestiges of a much older civilization, for "archaic" housewives cast down enormous quantities of broken kitchen ware from the top of the Penon, small sleeping volcano, which was then a rocky island in the Texcocoan lake.

Science News Letter, February 14, 1931

ZOOLOGY

Speed Record for Coyotes Broken In Yellowstone

A YELLOWSTONE coyote has broken the speed record for coyotes set up by Ernest Thompson Seton in his "Life Histories of Northern Animals." According to Mr. Seton, the best speed for a northern coyote was 24 miles an hour.

The Yellowstone animal, officially paced, kept up a speed of from 25 to 35 miles an hour for a distance of 1.6 miles—a new record for coyotes to shoot at.

Joseph Joffe, assistant to the superintendent of Yellowstone National Park, tells the story. While en route by automobile to the buffalo ranch recently he encountered two coyotes in the road. Upon seeing the car they separated, as always seems to be their custom, one going to the left over a game trail and the other to the right, along the road.

Mr. Joffe immediately picked up speed and followed the one in the road. Mrs. Joffe, who watched the speedometer, states that at no time did it record less than 25 miles an hour, and that the maximum was 35 miles.

Science News Letter, February 14, 1931

CE FIELDS

PUBLIC HEALTH

Influenza Has Reached Peak In Some Cities

THE influenza epidemic has reached its peak in the eastern part of the United States, it appears from reports received at the U. S. Public Health Service in Washington. A total of 8,362 cases have been reported for one week. This does not include a report from South Carolina, where the epidemic has been particularly severe, and it is expected that the final total will be about 1,000 higher.

While the later reports showed a continued increase, a decrease is expected soon at least in the eastern half of the country. In New York City, where the disease has been strikingly prevalent, the peak was reached the week of Jan. 24, the third week of the epidemic there. The city's report for the week of Jan. 31 showed a drop of 646 cases.

From this it may be taken that the peak of this particular epidemic will be reached during its third week. For the states which have been reporting high numbers of cases so far, the last week of January was the third week of the epidemic. Further west, where the epidemic has not yet appeared, the peak will come later.

Science News Letter, February 14, 1931

PHYSICS

Ranger Causes Static In Yellowstone Canyon

AN OUTSTRETCHED hand, pointing out an interesting view in the Grand Canyon of the Yellowstone, recently caused the sound of static electricity.

E. N. Jones, head ranger-naturalist of the park, with Mrs. Jones, sat at Inspiration Point on the Canyon Rim. Practically the entire sky was over-cast and a small thunder storm was brewing in the region to the north and west of the canyon.

During the course of the conversation, Ranger Jones stretched out his

hand to point out the older portion of the canyon on the down-stream side from Inspiration Point, and the sound of static electricity was heard, as though it were in the course of jumping from pole to pole of a sparking machine. Mr. Jones closed his hand tightly and the sound stopped. When he stretched out his fingers the sound again was heard. Further experiments gave the same results. Mrs. Jones also was able to cause these sounds.

Electric Peak, one of the oldest mountains in the Gallatin Range, was so named by one of the early exploring parties because of electrical disturbances they encountered.

Science News Letter, February 14, 1931

CHEMISTRY-PHOTOGRAPHY

New Movie Film is Better For Use With Talkies

FROM the astronomical observatory to the movie lot a new triple-fast photographic emulsion has come to make motion picture production cheaper and more flexible.

The motion picture film introduced to the profession last week is described by the Eastman Kodak Company as "the greatest advance in motion picture materials since the introduction of panchromatic film eighteen years ago." Its sensitive emulsion is very closely related to one prepared for astronomical photography which has been used to reduce the time required for making exposures through large telescopes. An improvement in the photographic plates used is just as effective in this case as though the telescope itself were increased in size. The emulsion of the super-speed panchromatic plates produced for newspaper photographers is also very similar to the new movie emulsion.

When the movies went talkie it was necessary to banish the familiar arc lamps on account of their noise. Large incandescent lamps are used. These are rich in red light which does not register effectively on ordinary movie negative. The new supersensitive film is affected by both red and green light to a much greater extent than previous film.

Camera men will now be able to "spot down" their lenses and get increased depth of focus which will allow the actors to move around with less fear of getting out of focus. Or they will be able to use less light and save money.

Science News Letter, February 14, 1931

ICHTHYOLOGY

Fish Turns Cut Throat Into an Extra Mouth

A FISH that apparently had its throat cut, or suffered some similarly bad accident, early in life and yet was not discouraged is the remarkable find described by Dr. E. W. Gudger of the American Museum of Natural History. The fish, a yellow perch now preserved in the Erie, Pa., Public Museum, simply turned the wound into a second mouth opening directly under the first one, and "carried on."

This second mouth had the disadvantage of having no closing muscles, so that it remained permanently open. Nevertheless the fish made use of it without any doubt, for it was hooked in this second mouth when it was caught.

Dr. Gudger describes several other similar cases that have been recorded. The earliest of these was in 1810, but the others are all of comparatively recent date. In all cases the second mouth seems to have been established as the result of accident.

Science News Letter, February 14, 1931

SEISMOLOGY

New Zealand Earthquake Possibly Under Sea Bottom

THE EPICENTER of the destructive earthquake that wrecked towns and claimed many lives in New Zealand was very near to Napier, the locality hardest hit. Scientists of the U. S. Coast and Geodetic Survey, working with data supplied by seven seismological stations through Science Service, located the point of greatest motion at approximately 177 degrees east longitude and 39 degrees south latitude.

It is thought possible that the earthquake centered beneath the sea bottom just off shore, because of the tidal waves that added to the misery of the devastated towns. Such waves usually start from earthquakes of submarine origin.

The stations reporting were those of the U. S. Coast and Geodetic Survey at Honolulu, T. H., and Tucson, Ariz., the Philippine Weather Bureau at Manila, P. I., the Dominion Meteorological Service at Victoria, B. C., the Dominion Observatory at Ottawa, Ont., Georgetown University at Washington, D. C., and Canisius College at Buffalo, N. Y.

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