GEOPHYSICS

Quake Causes Vibration For More Than a Month

➤ THE EARTH vibrated up and down one one-thousandth of an inch every 20 minutes for more than a month after the large Chilean earthquake of May, 1960.

Dr. G. J. F. MacDonald of the University of California, Los Angeles, reported to the American Physical Society in New York that the Chilean earthquake had opened up a whole new "window" through which seismologists can look at and learn about the earth's internal structure. When an earthquake occurs, it affects the earth much like a clapper affects a bell—the entire earth vibrates.

The vibrations take many forms, most of which have been known and studied for a long time. However, the very low frequency vibrations, with a period of 20 minutes, that move the earth one-thousandth of an inch have only recently been detected and studied.

Although the earth is a very poor "bell" for most forms of earthquake vibration, it is exceptionally good for the 20-minute vibration. The form of this vibration can be likened to the earth alternately taking the shape of a pancake and then a football to the extent of one-thousandth of an inch.

Dr. MacDonald said studying the various vibrations to learn about earth was equivalent to studying the atom's structure early in this century by examining its light.

• Science News Letter, 81:95 February 10, 1962

AGRICULTURE

New Collars and Cuffs For Men's Cotton Shirts

➤ LONGER LASTING collars and cuffs on men's cotton wash and wear shirts and a new treatment for giving cotton wash and wear properties are the latest results of U. S. Department of Agriculture research.

The collars and cuffs consist of a cotton wash and wear interliner bonded by an adhesive to outer layers of untreated cotton cloth. The finished fabric resists fraying and abrasion ordinarily associated with cotton.

The new treatment that gives cotton its wash and wear properties uses derivatives of divinyl sulfone chemicals. Dyes, starches and other finishing agents can be added to the fabric at the same time.

Dr. C. M. Welch and Dr. J. D. Guthrie, Agricultural Research Service chemists who devised the treatment, said it should permit textile finishers to use many beautiful and inexpensive dyes that by themselves do not have an affinity for cotton.

The procedure developed for the longer lasting collars and cuffs is credited to Agricultural Research Service scientists, Terrence W. Fenner, Robert M. Reinhardt, and Dr. J. David Reid, at the Southern Utilization Division, in New Orleans, La.

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The resplendent beauty of the male *butterfly* serves no known purpose.