OCEANOGRAPHY

Instrument Measures Firmness of Sea Bottom

➤ AN INSTRUMENT, which bores a hole into the sea bottom and records the compactness of the sediment, is now available.

The Narragansett penetrometer, designed by Prof. Clarence E. Miller and John D. Nixon of the University of Rhode Island, provides scientists for the first time with a method of determining the firmness of the sea bottom, without disturbing it.

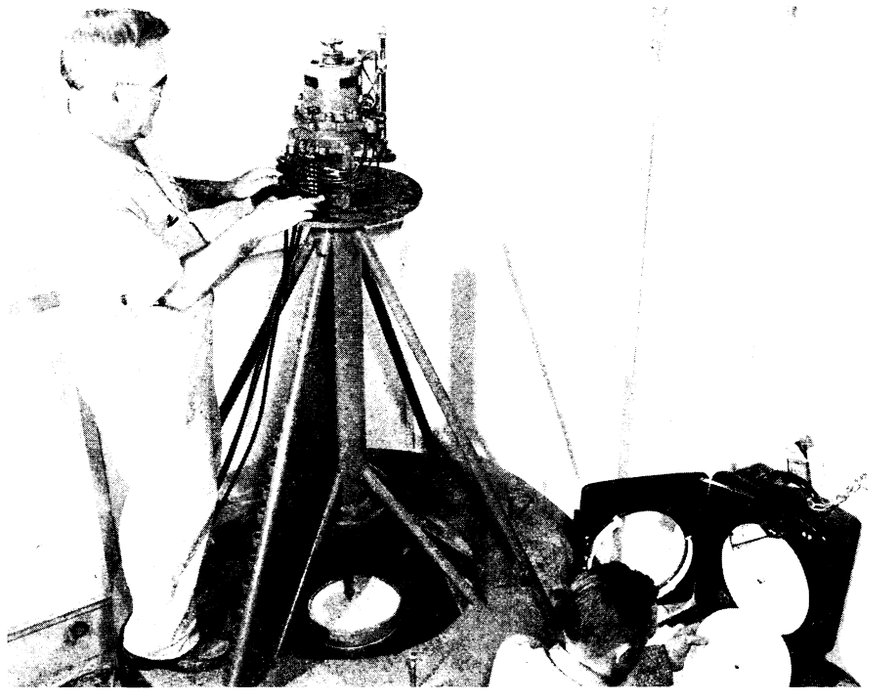
The instrument has a steel tube, with a probe on the end, which is driven through a hollow shaft into the sea bottom. As the probe bores into the sediment, a mechanism permanently records the resistance at depths up to 200 feet.

As the probe penetrates the sea bottom, resistance is transmitted to the recorder, which provides an ink record on a circular chart. A relatively straight line indicates loosely packed sediment and a descending line shows a more tightly packed bottom.

The penetrometer was designed for use in marine geological and biological research.

It may also prove useful to the U. S. Armed Forces for determining the firmness of off-shore sea bottoms which have been selected for amphibious landings.

Science News Letter, October 23, 1954



PENETROMETER—Dr. Clarence E. Miller, University of Rhode Island geologist is shown here adjusting an instrument he devised with Prof. John D. Nixon to measure the firmness of the sea bottom.

GEOLOGY

Dwarfs Hydrogen Bomb

➤ DWARFING THE power of the H-bomb, mountain-building processes in the West millions of years ago shoved a huge block of the earth's crust 35 to 40 miles from its original position.

The block was recently located in a remote Nevada area by University of California at Los Angeles geologists.

Drs. Donald Carlisle and C. A. Nelson found the phenomenon while geologically mapping a 400 square-mile area in the north central portion of the state.

The block consists of rocks formed hundreds of millions of years ago when life on earth consisted predominantly of simple organisms. It was thrust over rocks of equal and even younger ages, forming what is known as a thrust fault.

During the mountain-building processes huge segments of the earth's crust were shortened as the block folded over in many places. Drs. Carlisle and Nelson report silver-lead-zinc deposits are associated with these folds.

Rocks above the thrust fault include oil-bearing shales. These are potential petroleum sources, and oil seeps occur in the area mapped.

The thrust fault is apparently an extension of one known to occur in the Roberts Mountain area of Eureka County, Nevada. It has been traced by the geologists for 35 miles to the north and east.

Science News Letter, October 23, 1954

MEDICINE

Deaths Mount as Germs Resist Heart-Saving Drug

➤ DEATHS ARE mounting again from an almost conquered heart disease as germs grow resistant to heart-saving penicillin and other antibiotic drugs.

This bad news was brought to the World Congress of Cardiology in Washington by Prof. Luis Trias de Bes of Barcelona, Spain.

The heart disease he reported on is subacute bacterial endocarditis. This is an inflammation of the lining of the heart that sometimes develops as a complication of rheumatic or congenital heart disease.

This once almost always fatal disease was practically conquered when pencillin and other antibiotics came on the scene to rout the germs that caused the inflammation.

However, in the last five years, doctors have been able to cure only about half instead of 70% of the cases, Dr. Trias de Bes said.

Fortunately, there are fewer cases of the disease today. Dr. Trias de Bes warned, however, that "we face the serious risk that this disease will regain the high malignancy that characterized it before the discovery of antibiotics."

Science News Letter, October 23, 1954