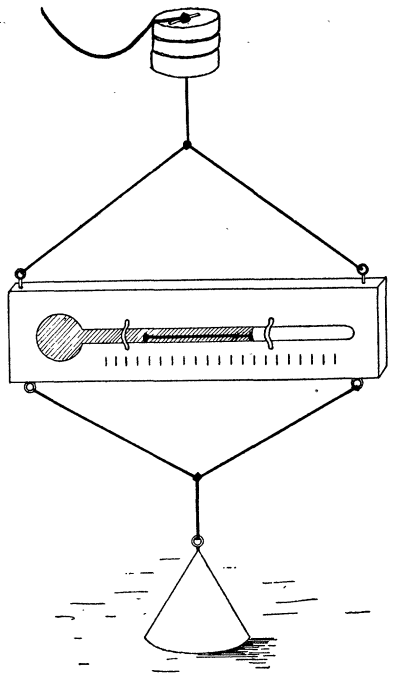

line is slack. Before lowering, the thermometer must be tilted so that the pin touches the meniscus. As the column contracts it is drawn back and left behind on subsequent expansion of the column as the thermometer reenters a zone of higher temperature. In the figure the size of the thermometer is exaggerated. In practice the distance from the thermometer to the sinker should be about a yard. On lowering, the bottom will be felt as in an ordinary sounding; and the observer has merely to wait a few minutes and haul up, the pull of the float maintaining the horizontal position throughout.

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A SPECIMEN MOUNT FOR INSECTS AND OTHER OBJECTS OF NATURAL HISTORY, ETC.

THE following description of a method of making permanent mounts of natural history specimens is based on work done at the Bermuda Biological Station in January to March in 1933, the plan being adopted during January with trials of different manipulations and with tests of the availability of each.

A dry cell is made by punching the center of a cardboard, bristol-board or similar material of different thicknesses or, where necessary, by building up to desired thickness by assembling several together, and then gluing a proper sized sheet of Cellophane to one side with duco or Cellophane adhesive, making a cell of sufficient depth to accommodate the object to be preserved. The cell and the object are dried by warmth and then the cell closed by applying adhesive to the upper side of the card and drawing the Cellophane down over the cell and pressing it to make a smooth adhesion and, if desired, turning a lap over on the under side and closing the ends by laps of the Cellophane. This makes a mount that is completely enclosed by moisture-proof Cellophane protected from mold, moisture, insect pests or other sources of deterioration and is especially applicable for insect or other collections in tropical or humid climates. Specimens so mounted are available for immediate and convenient examination or study with lens or microscope, either compound or binocular, and can be studied from either side or even at a considerable angle, since the thin layer of Cellophane does not interfere with extremely close study. Records or labels placed on the cards before sealing are also permanently protected by the transparent covering. Specimens mounted in this manner during January and exposed for a number of weeks to the attacks of ants, cockroaches and other pests and also to molds have shown no traces of injury, and it is believed that they will maintain their condition for an indefinite period. Delicate insects like mosquitoes and parasitic hymenoptera as well as insects of larger size are kept in perfect condition.

These mounts have been observed by a number of workers at the Bermuda Biological Station and have also been shown to a number of other specialists and all have agreed that the method seems to have a wide application and to be worthy of special notice.

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SPECIAL ARTICLES

THE ABSOLUTE MOTION OF THE SOLAR SYSTEM AND THE ORBITAL MOTION OF THE EARTH DETERMINED BY THE ETHER-DRIFT EXPERIMENT[1]

THE ether-drift experiment, first suggested by Maxwell in 1876 and made possible by Michelson's invention of the interferometer in 1881, though capable of being applied to the detection of the general absolute motion in space of the earth, was actually arranged for detetcing only the known orbital component of the earth's motion. For the first time, in 1925 and 1926, at Mount Wilson, the writer made observations of such extent and completeness that they were sufficient

[1] Read before the National Academy of Sciences, Washington, D. C., April, 1933.