

dant, accessible, usable fauna and flora; (2) accessibility of station; (3) climate—on a basis of working efficiency during *entire* year; (4) economy in operation.

Organized research in the tropics for a definite purpose is admirable. All honor to Mayor for the splendid work he so indefatigably directed; but let us not take too easily for granted hasty generalizations concerning the superiority of the tropics or subtropics as a situation for a *permanent* marine biological laboratory. There is a glamour about the tropics which is too frequently dissipated on close acquaintance.

W. K. FISHER

HOPKINS MARINE STATION

### THE MOVEMENT OF THE CENTRAL ATLANTIC RIDGE

THE soundings in the Central Atlantic area show the existence of a long ridge, which passes through the Azores and the islands of St. Paul and Tristan da Cunha. This ridge shows a bending-point in the neighborhood of the equator between the island of St. Paul and the Romanche deep.

We have pointed out in some recent publications that many of the transverse fractures which often are found near the bending-points of moving geantielines are the surface expression of differences in rate of horizontal movement. In moving rows of islands several deep straits between the islands coincide with bending-points.

Transverse faults with a horizontal displacement are sometimes visible and where the epicenters of modern earthquakes are on transverse tectonic lines near the bending-point, similar movements are still going on at the present day.

In regions which are not accessible for direct observation, the comparative tectonic method should be applied. If a submarine ridge has a bending-point, the form of the ridge can be the result of differences in rate of movement of neighboring points in the horizontal projection of the ridge. Where the differences are greatest, epicenters of earthquakes will be numerous and if a submarine ridge shows a maximum of seismicity in the neighborhood of a bending-point, this points to movements with unequal velocity in a horizontal direction. The

central Atlantic ridge shows a bending-point near the equator and a zone of high seismicity is found in the neighborhood between the island of St. Paul and the Romanche deep. The deeps in the same neighborhood, which are an abnormal feature for the Atlantic sea-bottom, may be in part of similar origin as the abnormal deep straits near bending-points of rows of islands.

The long ridge of the Central Atlantic area has been explained in several different ways, *f. i.*, as the beginning of a zone of arcuate folding, as the highest parts of a subsided continent, as a ridge of volcanic origin and as the filling of an originally narrow gaping fracture which opened to the present Atlantic Ocean by horizontal movement of continental areas.

The application of the comparative tectonic method points to movements with unequal velocity in a horizontal direction, which may have been going on since a very long time. The present S-shaped ridge may have developed from a simpler form by similar movements as those which characterize the present ridge. Anyhow, those explanations in which the horizontal movements are not taken into consideration do not seem to be applicable.

H. A. BROUWER

DELFT, HOLLAND

JANUARY 10, 1923

### THE DEPRECIATION OF THE POUND

TO THE EDITOR OF SCIENCE: Advocates of the metric system will be interested to know that, beginning January 1, 1923, all transactions in grain, meal, bran, potatoes and agricultural seeds in the United Kingdom will be conducted on a price per hundred weight of 112 pounds. This is in conformity with the provisions of the Corn Sales Act of 1921. After December 31, 1922, any contract, bargain, sale or transaction in above named staples will be null and void unless made by weight only and in terms of or by reference to *the hundred weight of 112 pounds*.

Thus a step forward has been taken; but at that only a halting one. The pound is no longer 7,000 grains but only 6,250 grains because a pound now is by law only nine tenths of a pound. Dealers in farm products in Great Britain will still use the short ton and the long ton; but seemingly, the stone, the box,