

GEOLOGY

Floating Lands Called Poor Explanation of Ice Ages

THE WEGENER hypothesis of "continental drift," which pictured the earth's great land masses as rafts afloat on a great sea of stiffly plastic sustaining rock, which permitted them to move slowly about, has been very attractive to many geologists; but lately some of them have been showing signs of doubt, and have turned on the theory with challenges that to a man on the sidelines seem hard to answer.

Dr. A. P. Coleman of the Royal Ontario Museum in Toronto, in communications to the *Geographical Journal* and the *Journal of Geology*, goes after Wegener's theory of the origin of ice ages.

The Pleistocene ice age, which was the most recent of such chilly episodes and was still in progress when man appeared on earth, Wegener accounted for by having North America, Britain and Scandinavia all squeeze together in a huddle, while at the same time the North Pole wandered down and sat in the midst of them, so that a single great blanket of ice covered the northern end of the earth. Dr. Coleman calls attention to the well-known fact that in North America at least there were two distinct ice sheets, and the further fact that both the American and the European ice sheets reached the Atlantic Ocean, which they could hardly have done if that ocean had been squeezed out of existence.

Further, Dr. Coleman argues, though a huddle of continents might conceivably account for glaciations, it would not account for the interglacial periods of warm climate which undoubtedly intervened between successive advances of the ice. At least one of these interglacial interludes, he states, brought to north temperate lands a climate averaging four or five degrees warmer than the one now prevailing.

Not only that, but the distribution of glaciation in Europe and America followed the same "unfair" lines as their present distribution of winter cold. Europe's winters are notoriously milder than those of North America in the same latitudes, or even appreciably farther south. Europe's lines of moraines, great hills of ground rock and rubbish

dumped by the melting glaciers, are a dozen degrees of latitude farther north than North America's, indicating that even the glacial climate was kinder to the transatlantic continent.

Finally, Dr. Coleman calls attention to the fact that great land masses are not the best arrangements in the world for collecting water, whether as rain or snow freezing into permanent ice. The heart of a continent tends to be a desert. Siberia may have been cold during the Pleistocene but it was not glaciated: the neighboring Arctic ocean was frozen over and was therefore a poor source of evaporation to supply snowstorms.

Allowing the continents to remain approximately where they are at present, however, allows a rich source of moisture for glaciated Europe in the warm and nearby Atlantic ocean, while North America had two oceans and the Gulf of Mexico.

Dr. Coleman takes a few more shots at the Wegenerian argument for the Pleistocene, and then turns his attention to another severe period of glaciation which the world endured shortly after the end of the flush geologic times that we call the Coal Age. Here again he finds difficulties with another bunching of continents, this time on the other side of the globe, with a wandering South Pole settling among them temporarily.

Dr. Coleman's arguments have the disadvantage of setting up again as unsolved riddles some questions which the Wegenerian theory had neatly tied up and put away. But unsolved riddles do not annoy the modern scientist: he is not ashamed to say honestly, "I don't know—yet."

Science News Letter, August 5, 1933

SEISMOLOGY

Aleutian Area Again Shaken by Earthquake

THE earth's crust under the Pacific south of Alaska's Aleutian Islands is particularly uneasy these days. Another world-shaking earthquake originated there Saturday afternoon, July 22, at 3:55.3 p. m., E.S.T., and was re-

corded on seismographs in various parts of the world. Seismological telegrams to Science Service allowed the U. S. Coast and Geodetic Survey to locate its epicenter at 52 degrees North latitude, 169 degrees West longitude.

On July 19 three earthquakes occurred in the same area within two days.

The bottom of the Pacific Ocean about 200 miles west of Navigator or Samoa Island was the location of an earthquake on Monday, July 24, at 1:55.7 p. m., E.S.T., which was recorded on seismographs in this country and the Pacific area. The approximate epicenter was determined by the U. S. Coast and Geodetic Survey, using data wired to Science Service, to be 13½ degrees South latitude and 176 degrees West longitude.

Science News Letter, August 5, 1933

ARCHAEOLOGY

Turquoise-Covered Skull Represents Mexican God

ONE of the greatest treasures among the famous Monte Alban jewels from the prehistoric shrine in the Mexican State of Oaxaca, now being shown at the Century of Progress Exposition, at first looks rather grisly and out of place among the many beautiful ornaments of gold, pearl, jade and other precious materials. For it consists of a human skull, covered over with a mosaic of tiny flat pieces of turquoise and fitted with eyes of pearl-shell and a nose of flint.

But this ornamented skull was a very important thing in the ancient Mexican religious system, for it represented the great god Tezcatlipoca, who was the deity of the sky, of light and of nature generally. Only one other similar skull has hitherto been found, and this is now in the British Museum, scientists in charge of the treasure state.

Another highly valuable object in the collection is a chalice carved out of rock-crystal. It is so truly round and so smooth that it is believed the workman who made it knew the use of at least a simple type of lathe. Several pairs of large spool-shaped ear pendants also show the same accurate circular cutting attainable only with a lathe.

The use of rock-crystal as a material for ornaments and ceremonial vessels argues for a high degree of both skill and patience by the Indian craftsmen. This mineral is one of the hardest of natural substances, being much harder than ordinary steels.

Science News Letter, August 5, 1933