

in longitude $66^{\circ} 57'$ and latitude $44^{\circ} 49'$; the westernmost point is Cape Alva, Wash., in latitude $48^{\circ} 10'$, which extends into the Pacific Ocean to longitude $124^{\circ} 45'$.

From the southernmost point in Texas due north to the forty-ninth parallel, the boundary between the United States and Canada, the distance is 1,598 miles. From West Quoddy Head due west to the Pacific Ocean the distance is 2,807 miles. The shortest distance from the Atlantic to the Pacific across the United States is between points near Charleston, S. C., and San Diego, Calif., and is 1,152 miles.

The length of the Canadian boundary line from the Atlantic to the Pacific is 3,898 miles. The length of the Mexican boundary from the Gulf to the Pacific is 1,744 miles. The length of the Atlantic coast line is 5,560 miles and that of the Pacific coast line is 2,730 miles. The Gulf of Mexico borders the United States for 3,640 miles.

Nearly all maps of the United States show the parallels of latitude as curved lines and are likely to lead the ordinary observer to believe that certain eastern or western states are farther north than some of the central states that are actually in the same latitude. For this reason, one who is asked which extends farther south, Florida or Texas, is very likely to say "Texas," but, as stated, the mainland of Florida is nearly 50 miles farther south than the southernmost point in Texas. For the same reason, when we consider the geographical positions of countries south of the United States we find that errors are likely to be made in estimating position or extent in longitude. Few realize that the island of Cuba, for example, if transposed directly north would extend from New York City to Indiana, or that Habana is farther west than Cleveland, Ohio, or that the Panama Canal is due south of Pittsburgh, Pa., or that Nome, Alaska, is farther west than Hawaii.

THE BRITISH DEPARTMENT OF SCIENTIFIC AND INDUSTRIAL RESEARCH

The following is a list of Research Associations which have been approved by the

department as complying with the conditions laid down in the government scheme for the encouragement of industrial research and have received licenses from the Board of Trade:

The British Boot, Shoe and Allied Trades Research Association, Technical School, Abington Square, Northampton. *Secretary*—Mr. John Blakeman, M.A., M.Sc.

The British Cotton Industry Research Association, 108, Deansgate, Manchester. *Secretary*—Miss B. Thomas.

The British Empire Sugar Research Association, Evelyn House, 62, Oxford Street, London, W.1. *Secretary*—Mr. W. H. Giffard.

The British Iron Manufacturers' Research Association, Atlantic Chambers, Brazennose Street, Manchester. *Secretary*—Mr. H. S. Knowles.

The Research Association of British Motor and Allied Manufacturers, 39, St. James's Street, London, S.W.1. *Secretary*—Mr. Horace Wyatt.

The British Photographic Research Association, Sicilian House, Southampton Row, London, W.C.1. *Secretary*—Mr. Arthur C. Brookes.

The British Portland Cement Research Association, 6, Lloyd's Avenue, London, E.C.3. *Secretary*—Mr. S. G. S. Panisset, A.C.G.I., F.C.S.

The British Research Association for the Woollen and Worsted Industries, Bond Place Chambers, Leeds. *Secretary*—Mr. Arnold Frobisher, B.Sc.

The British Scientific Instrument Research Association, 26, Russell Square, W.C.1. *Secretary*—Mr. J. W. Williamson, B.Sc.

The Research Association of British Rubber and Tyre Manufacturers, c/o Messrs. W. B. Peat & Co., 11, Ironmonger Lane, E.C.2.

The Linen Industry Research Association, 3 Bedford Street, Belfast. *Secretary*—Miss M. Burton.

The Glass Research Association, 50, Bedford Square, W.C.2. *Secretary*—Mr. E. Quine, M.Sc.

The British Association of Research for Cocoa, Chocolate, Sugar Confectionery, and Jam Trades, 9, Queen Street Place, E.C.4. *Secretary*—Mr. R. M. Leonard.

THE CENTENARY OF OERSTED'S DISCOVERY

ON August 31 and September 1 the centenary of the discovery of electromagnetic action by the Danish physicist, Hans Christian Oersted, was celebrated at Copenhagen. Meetings were held in the Town Hall and

¹ From *Nature*.