

between the Atlantic and the Great Ocean at the meridians of Cape Horn and the Cape of Good Hope. He then subdivides the oceans by imaginary lines, making use of the equinoctial circles: thus he distinguishes, between the north polar circle and the northern equinox, a North Atlantic Ocean; between the two equinoctial circles an Equinoctial Atlantic Ocean; and from the southern equinox to the south polar circle a South Atlantic Ocean. He adopts similar subdivisions for the Pacific, where he has a Great Boreal Ocean, a Great Equinoctial Ocean, and a Great Austral Ocean. He looks upon the Indian Ocean as a large gulf. "How can one consider as a separate sea," he asks, "a gulf which measures at its opening more than 1500 marine leagues, an opening almost equal to one-quarter of the earth's circumference?"

MALTE-BRUN.

Malte-Brun<sup>1</sup> also divides the ocean into two basins: the "Great Oriental Austral basin, occupying the greater part of the aquatic hemisphere of the globe," which comprises our South Polar Sea, the Pacific, and the Indian Ocean, communicating with the "Occidental basin" at Cape Horn and the Cape of Good Hope.

BALBI.

Adriano Balbi's subdivision of the seas is very similar to Fleurieu's, but he names four oceans: the Northern Ocean, the Southern Ocean, the Atlantic Ocean, and the Great Ocean.<sup>2</sup> The Indian Ocean is but a portion of the last.

The nomenclature of the seas was finally settled, it is said, by a committee of the Royal Geographical Society of London in 1845,<sup>3</sup> and is the one generally adopted at present; the only objections to which it has given rise refer to the artificial divisions of the oceans in the southern hemisphere.

PROGRESS OF  
CARTOGRAPHY.

If the charts of the present day be compared with those in existence before Cook's time, the perfection attained will easily be noticed. This important branch of oceanography has been very greatly developed through the extension of geographical and geodetic knowledge under the impulse of commerce and inter-oceanic relations. Nearly all regions of the ocean are accurately represented in our charts, even the polar regions so far as explored being laid down with precision. Certain points are detailed with minute care; others rather less so. This is because the scientific element is not the only one at work. Those parts of the coasts most frequented by traders are those most accurately surveyed. Here, as in many things, the immediate requirements of man are the main-spring, and scientific investigation is but a secondary consideration.

It must be remembered that much precise knowledge has been attained during the past centuries as to the form and dimensions of the earth. Mercator's projection has been generally adopted, as also the meridian of Greenwich. New details have been

<sup>1</sup> Malte-Brun, Précis de la géographie, ed. 2, tom. ii. pp. 162-166, Paris, 1812.

<sup>2</sup> Balbi, Compendio di Geographia Universale, ed. 2, Venezia, 1819.

<sup>3</sup> No references, however, to the work or opinions of this committee are to be found in the publications of the Society, prior to June 1893, when the proceedings of the committee were published at my suggestion (see *Geogr. Journal*, vol. i. p. 535, 1893).