

25° S., and Australia, together with the islands of the East Indies, the Pacific, and the Antarctic. London and Paris are situated very near the center of the land-hemisphere.

*General arrangement of the oceans and continents.*—Oceans and continents are the grander divisions of the earth's surface. But, while the continents are separate areas, the oceans occupy one continuous basin or channel. The waters surround the *Antarctic* pole and stretch *north* in three prolongations, — the Atlantic, the Pacific, and the Indian oceans. The land is gathered about the *Arctic*, and reaches *south* in two great continental masses, the occidental and oriental, called America and Eurasia; but the latter, through Africa and Australia, has two southern prolongations, making, in all, three, corresponding to the three oceans. Thus the continents and oceans interlock, the former narrowing southward, the latter northward.

This subject is illustrated on the map, page 47. It is a Mercator's chart of the World, which, while it exaggerates the polar regions, has the great advantage of giving correctly all courses, that is, the bearings of places and coasts. The trends of lines ("trend" means merely course or bearing) admit, therefore, of direct comparison upon such a chart. It is important that the globe should be carefully studied in connection with it, in order to correct misapprehensions as to distances in the higher latitudes, and to appreciate the convergences between lines that have the same compass-course. The low lands of the continents on this chart, or those below 800 feet in elevation above the sea, are distinguished from the higher lands and plateaus by a lighter shading. The oceans are crossed by isothermal lines, which are explained beyond.

The Atlantic is the narrow ocean, the mean breadth of the North Atlantic being about 2800 miles. The Pacific is the broad ocean, being 6000 miles across, or more than twice the breadth of the Atlantic. The occident, or America, is the narrow continent, about 2200 miles in average breadth; Eurasia, the broad continent, 6000 miles in average breadth. Each continent has, therefore, as regards size, its representative ocean. The Pacific Ocean, reckoning only to 62° S., has an area of 62,000,000 square miles. This is ten millions beyond the area of the continents and islands, and nearly one third of the earth's surface.

(3) **Oceanic depression.** — (a) *Outline.* — The oceanic depression is a vast sunken area, varying in depth from 500 feet or less to probably 30,000 feet.

The true outline of the depression is not necessarily the present coastline. About the continents there is often a shallow region which is the submerged border of the continent. On the North American coast, off New Jersey, as shown on the bathymetric map (page 18), this submerged border extends out for 110 miles (and 120 from New York City), with a depth, at this distance, of only 600 feet, its slope outward only one foot in 968. At the 100-fathom line, as shown on the map, the waters suddenly deepen, and here the true oceanic basin begins. This continental border of the ocean (see large bathymetric map following page 20, on which the 100-fathom line is finely dotted) extends northward to Newfoundland and beyond, and