

or of volcanic origin, and contain none of the granites, schists and other ordinary continental rocks. St. Helena and Ascension in the Atlantic, and the Friendly and Sandwich Islands in the Pacific Ocean are conspicuous examples.

Another important result of recent deep-sea research is the determination of the relation of mediterranean seas to the main ocean. These basins, such as the North, Mediterranean, and Black Seas, the Gulf of Mexico, Caribbean Sea, Baffin's Bay, Hudson's Bay, Sea of Okhotsk, and Chinese Sea, belong rather to the continental than the oceanic areas of the earth's surface. An elevation of a few hundred fathoms would convert most of them into land, with here and there deep water-filled basins.

A question of high importance in geological inquiry is the form of the surface of the sea or what is usually called the sea-level. It has been generally assumed that this surface is stable and uniform and nearly that of an ellipsoid of revolution, owing its equilibrium to the force of gravity on the one hand and the centrifugal force of rotation on the other. But in recent years this conception has been called in question both by physicists and geologists. Observations as well as calculations have shown that the attraction exercised by masses of land raises the level of the adjacent sea, and attempts have been made to determine how far the deformation thus caused departs from the mean of the theoretical ellipsoid of revolution. According to Bruns, a continent may cause a difference of more than 3000 feet between the actual level of the sea and that of the ellipsoid. But the results of such calculations will greatly depend on the assumption on which they start as to the nature of the earth's crust. R. S. Woodward has calculated that if the continent of Europe and Asia be supposed to be sim-