gists. There is one of these ridges on the coast of Massachusetts, between Newburyport and Ipswich, the highest part of the city of Newburyport being situated upon its summit.

Sea Beaches.—Along our coasts these are now in process of formation. They consist of sand and gravel, which are acted upon, rounded and comminuted by the waves, and thrown up into the form of low ridges with more or less the appearance of stratification. With them shells and fragments of shells are usually associated, but not invariably. In passing into the interior from the coast, we occasionally see analogous ridges. A few of them are within 100 feet of the present ocean level, and no one will doubt their marine origin. But as we rise into the higher parts of the country deposits occur which can not be distinguished from these recent beaches, except that they are sometimes much mutilated by erosion. Fossil shells have been observed in these beaches about 540 feet above the ocean level in this country, in the deposits having the provincial name of Champlain clays. No fossils have yet been discovered in the highest beaches.

The most distinct beaches occur below 1,200 feet above the ocean level. A very fine beach, however, is found on the west side of the Green Mountains, in West Hancock, Vt., 2,196 feet high. Others still higher are in Peru, Mass., 2,022 feet; at the Franconia Notch of the White Mountains, 2,665 feet; and at the Notch of the White Mountains, (Gibb's Hotel,) 2,020 feet. Upon comparing together the heights of beaches in different parts of New England, we find a number of them having essentially the same elevation; thus showing that they were formed contemporaneously. For example, there are beaches in Ashfield and Shutesbury, Mass.; in Norwich, Corinth, Elmore, Hardwick, and Brownington, Vt., each 1,200 feet above the ocean, and the most remote are nearly 200 miles apart. Other sets might be named at different elevations than this. On Mt. Snowden, in Wales, the highest beaches are elevated 2,547 feet; in Switzerland, on the west shore of Lake Zurich, 2,105 feet; at Scupsheim, 2,274 feet; and near Berne, 2,640 feet. There is an interesting coast line in Scotland, parallel to its present shore, and continuous around the whole island. It is from thirty to fifty feet above the present ocean level.

Stratigraphically, the beaches lie directly upon the unmodified drift and are formed from its ruins. The striated and angular fragments of rock lose their markings and angles; they are reduced in size, and stratified in successive layers of coarse and fine materials.

Sea Bottoms.—Extensive deposits are accumulating upon the bottoms of present seas and lakes, both of chemical and mechanical origin. These are forming at the same time with the present beaches upon the coast. If, then, we have found ancient sea beaches more than 2,000 feet above the present ocean level, may there not be ancient sea bottoms to correspond with them? There