bert. It is partly surrounded with mountains, along the sides of which well-defined lines of terrace mark former levels of the water (Fig. 142). The highest of these terraces lies about 940 feet above the present surface of the lake, so that when at its greatest dimensions, this vast sheet of water must have stood at a level of about 5200 feet above the sea, and covered an area of 300 miles from north to south, and 180 miles in extreme width from east to west. It was then certainly fresh, for, having an outlet to the north, it drained into the Pacific Ocean, and in its stratified deposits an abundant lacustrine molluscan fauna has been found.[201] According to Gilbert there are proofs that, pre-

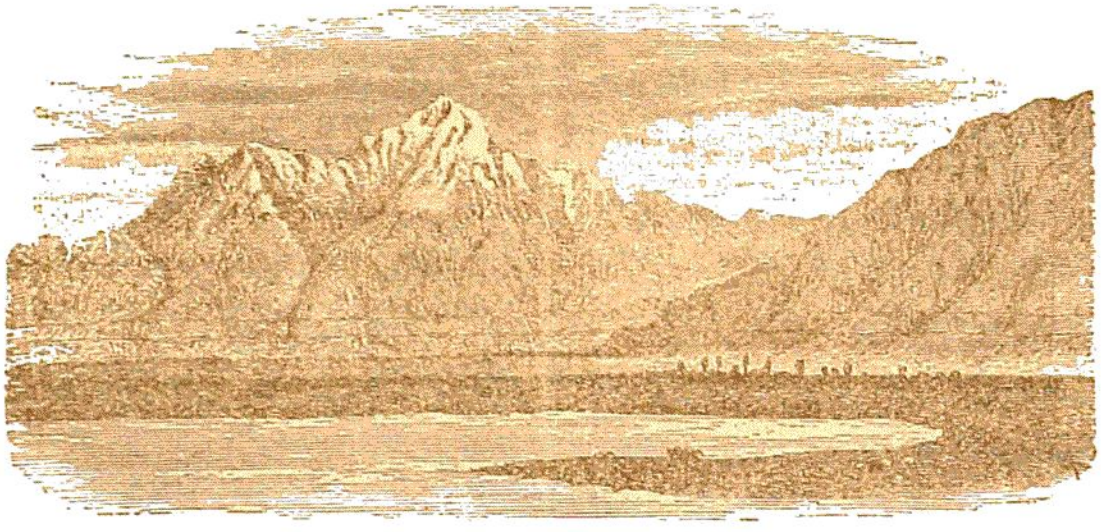

Fig. 142.—Terraces of Great Salt Lake, on the flanks of the Wahsatch Mountains.

vious to the great extension of Lake Bonneville, there was a dry period, during which considerable accumulations of subaerial detritus were formed along the slopes of the mountains. A great meteorological change then took place, and the whole vast basin, not only that termed Lake Bonneville, but a second large basin, Lake Lahontan of King, lying to the west and hardly inferior in area, was gradually filled with fresh water. Again, another meteorological revolution supervened and the climate once more became dry. The waters shrank back, and in so doing, when they had sunk below the level of their outlet, began to grow increasingly saline. The decrease of the water and the increase of salinity were in direct relation to each other until the present de-

[201] For an account of this fauna see R. E. Call, Bull. U. S. Geol. Surv. No. 11, 1884.