

gree of concentration has been reached, as shown in the table (p. 694). The Great Salt Lake, at present having an extreme depth of less than 50 feet, is still subject to oscillations of level. When surveyed by the Stansbury Expedition in 1849, its level was 11 feet lower than in 1877, when the Survey of the 40th Parallel examined the ground. From 1866, however, a slow subsidence of the lake has been in progress, consequent upon a diminution of the rainfall. Large tracts of flat land, formerly under water, are being laid bare. As the water recedes from them and they are exposed to the remarkably dry atmosphere of these regions, they soon become crusted with a white saliferous and alkaline deposition, which likewise permeates the dried mud underneath. So strongly saline are the waters of the lake, and so rapid the evaporation, as I found on trial, that one floats in spite of one's self, and the under surfaces of the wooden steps leading into the water at the bathing-places are hung with short stalactites of salt from the evaporation of the drip of the emergent bathers.²⁰²

Some of the smaller lakes in the great arid basin of North America are intensely bitter, and contain large quantities of carbonate and sulphate as well as chloride of sodium. The Big Soda Lake near Ragtown in Nevada contains 129.015 grammes of salts in the litre of water. These salts consist largely of chloride of sodium (55.42 per cent of the whole), sulphate of soda (14.86 per cent), carbonate of soda (12.96 per cent), and chloride of potassium (3.73 per cent). Soda is obtained from this lake for commercial purposes.²⁰³

(b) Salt lakes of oceanic origin are comparatively few in number. In their case, portions of the sea have been isolated by movements of the earth's crust; and these detached areas, exposed to evaporation, which is only partially compensated by inflowing rivers, have shrunk in

²⁰² Much information regarding the Great Basin and its lakes is to be found in vol. iii. of Wheeler's Survey West of 100th Meridian, vols. i. and iv. of the Survey of the 40th Parallel, and Report of U. S. Geol. Survey, 1880-81, I. C. Russell, "Geological History of Lake Lahontan," U. S. Geol. Survey Monographs, No. XL, and in the papers cited ante, p. 686.

²⁰³ Bull. U. S. Geol. Surv. No. 9, 1884, p. 25. T. M. Chatard, Amer. Journ. Sci. xxxvi. 1888, p. 148, and xxxviii. 1889, p. 59.