

rise or sink into the spaces between isolated gypsum-lenticules. 5. Gypseo-saliferous formations are generally of local extent in one direction or in both, indicating that they were accumulated in a restricted portion of the ocean.

The productive salt formations of the United States are three. The Salina group is the source of supply of brine and gypsum to Onondaga and Cayuga Counties, New York. The vast manufacture of the Empire State is based upon this supply. Only the northern rim of the basin or formation is known (Fig. 92). Its outcropping edge was deeply excavated by the agencies of the ice-period, and the excava-

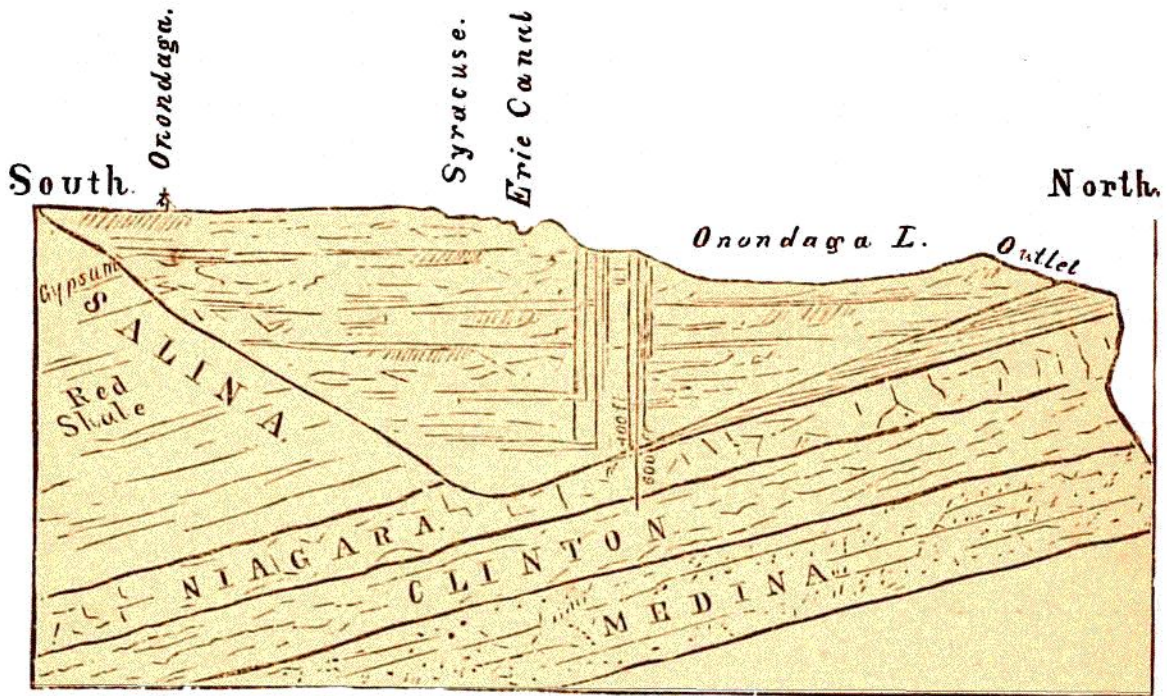


Fig. 92. Longitudinal section of the Onondaga Salt Basin (from Superintendent's Report for 1857), showing the ancient excavation of the outcrop of the Salina group, now filled with gravel and clay, and saturated by an exudation of brine from the old stump of the formation.

tion was filled with gravel. The overflow from the notched rim of the basin saturates the gravel, and thus forms a vast inland salt-marsh. The strongest brine settles to the bottom of this basin, and is reached by wells of the ordinary kind, and pumped out. It seems inevitable that a supply obtained under such geological circumstances must be liable to rapid exhaustion. The facts show that the strength