

the sea; and the port of Adria, so well known in ancient times as to have given its name to the Adriatic, is now 14 miles inland, while on other parts of that coast-line the breadth of land gained within the last 1800 years has been as much as 20 miles. Borings for water near Venice to a depth of 572 feet have disclosed a succession of nearly horizontal clays, sands, and lignitiferous beds. Marine shells (*Cardium*, etc.) occur in the sandy layers; the lignites and lignitiferous clays contain land-vegetation and terrestrial shells (*Succinea*, *Pupa*, *Helix*), the whole succession of de-

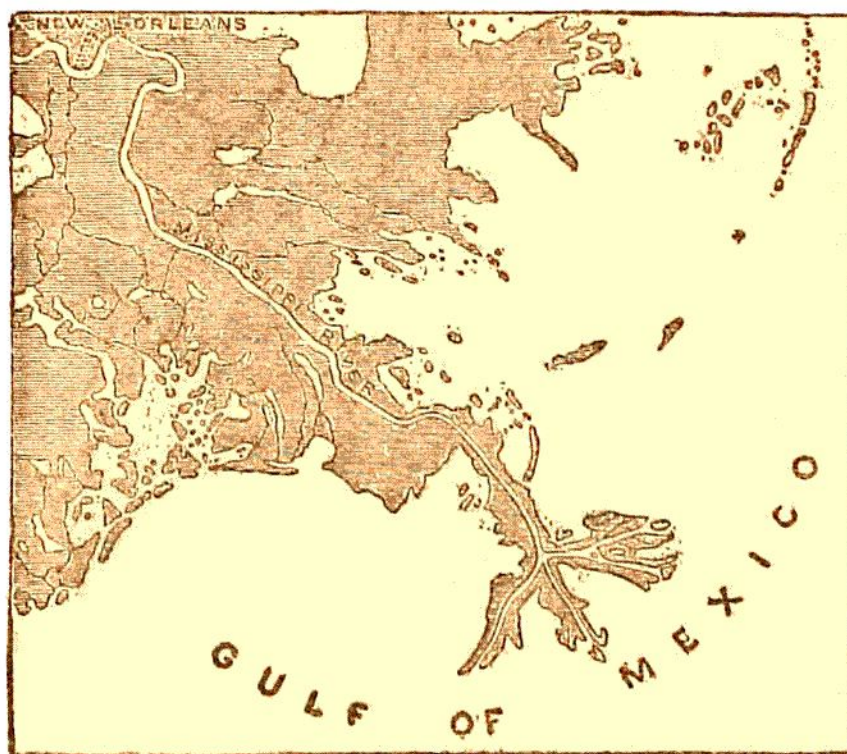


Fig. 137.—Map of Delta of Mississippi.

posits indicating an alternation of marine and terrestrial or fresh-water conditions.¹⁸⁴ On the opposite side of the Italian peninsula, great additions have been made to the coast-line within the historical period. It is computed that the Tuscan rivers lay down as much as 12 million cubic yards of sediment every year within the marshes of the Maremma. The "yellow" Tiber, as it was aptly termed by the Romans, owes its color to the abundance of the sediment which it carries to sea. It has long been adding to the coast-line around its mouth at the rate of from 12 to 13 feet per annum. The ancient harbor of Ostia is now consequently more than 3 miles

¹⁸⁴ Élie de Beaumont, "Leçons de Géologie pratique," i. p. 323. Geol. Mag. ix., 1872, p. 486.