

inland. Its ruins have been partially excavated, but every flood of the river leaves a thick deposit of mud on the streets and on the floors of the uncovered houses. Hence it would seem that the Tiber has not only advanced its coast-line but has raised its bed on the plains, by the deposit of alluvium, so that it now overflows places which, 2000 years ago, could not have been so frequently under water.¹⁸⁶ In the Black Sea, a great delta is rapidly growing at the mouths of the



Fig. 138.—Delta of the Ganges and Brahmaputra (with Scale of Miles).

Danube. At the Kilia outlets the water is shallowing so fast that the lines of soundings of 6 feet and 30 feet are advancing into the sea at the rate of between 300 and 400 feet per annum.¹⁸⁶ The typical delta of the Nile has a seaward border 180 miles in length, the distance from which to the apex of the plain where the river bifurcates is 90 miles.¹⁸⁷

¹⁸⁶ See an interesting article by Prof. Charles Martins on the Aigues-Mortes (*i.e.* dead waters or disused river-channels), in "Revue des Deux Mondes," 1874, p. 780. I accompanied the distinguished French geologist on the occasion of his visit to Ostia in the spring of 1873, and was much struck with the proofs of the rapidity of deposit in favorable situations. In the article just cited, and in another in *Comptes Rend.* lxxviii. p. 1748, some valuable information is given regarding the progress of the delta of the Rhone in the Mediterranean. Interesting historical data as to geological changes at the mouths of the Rhine, Meuse, Elbe, Po, Rhone and other European rivers, as well as of the Nile, will be found in Élie de Beaumont's "Leçons de Géologie pratique," vol. i. p. 253.

¹⁸⁶ Hartley, *Min. Proc. Inst. Civ. Engin.* xxxvii. p. 216.

¹⁸⁷ For a detailed study of the Nile delta in its geological aspects, see an essay by Dr. J. Jankó, *Mittheil. Jahrb. Kön. Ungarischen Geol. Anst.* viii., 1890, p. 236.