

this cause and partly, in the case of a rapid stream, from the erosion of the channel, the plain can no longer be overspread by the river. As the channel is more and more deepened, the river continues, as before, to be liable, from inequalities in the material of its banks, sometimes of the most trifling kind, and from the behavior of water flowing in irregular channels, to wind from side to side in wide curves and loops,

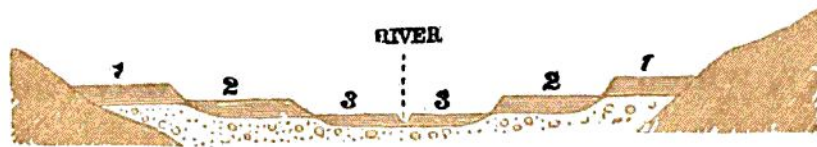


Fig. 128.—Section of River-terraces.

and cuts into its old alluvium, making eventually a newer plain at a lower level. Prolonged erosion carries the channel to a still lower level, where the stream can attack the later alluvial deposit, and form a still lower and newer one. The river comes by this means to be fringed with a series of terraces (Fig. 128), the surface of each of which represents a former flood-level of the stream.

In Britain, it is common to find three such terraces, but sometimes as many as six or seven or even more may occur. On the Seine and other rivers of the North of France, there is a marked terrace at a height of 12 to 17 metres above the present water-level. In North America, the river-terraces exist on so grand a scale that the geologists of that country have named one of the later periods of geological history, during which those deposits were formed, the *Terrace Epoch* (Fig. 129). The modern alluvium of the Mississippi, from the mouth of the Ohio to the Gulf of Mexico, covers an area of 19,450 miles, and has a breadth of from 25 to 75 miles and a depth of from 25 to 40 feet. The old alluvium of the Amazon likewise forms extensive lines of cliff for hundreds of miles, beneath which a newer platform of detritus is being formed.¹⁷¹

¹⁷¹ The stages of terrace-making in the regime of a great river are well brought out in the case of the Amazon. C. B. Brown, Q. J. Geol. Soc. xxxv. p. 763. The subject of the origin of river-terraces is discussed by Mr. H. Miller of the Geological Survey in Proc. Roy. Phys. Soc. Edin. 1883, p. 263.