loess, a step the more necessary, as a French geologist, for whose knowledge and judgment I have great respect, tells me he has come to the conclusion that 'the loess' is 'a myth,' having no real existence in a geological sense, or as holding a definite place in the chronological series.

No doubt it is true that in every country, and at all geological periods, rivers have been depositing fine loam on their inundated plains in the manner explained above at p. 34, where the Nile mud was spoken of. This mud of the plains of Egypt, according to Professor Bischoff's chemical analysis, agrees closely in composition with the loess of the Rhine.* I have also shown (p. 201), when speaking of the fossil man of Natchez, how identical in mineral character, and in the genera of its terrestrial and amphibious shells, is the ancient fluviatile loam of the Mississippi with the loess of the Rhine. But granting that loam presenting the same aspect has originated at different times and in distinct hydrographical basins, it is nevertheless true that, during the glacial period, the Alps were a great centre of dispersion, not only of erratics, as we have seen in the last chapter, and of gravel, which was carried farther than the erratics, but also of very fine mud, which was transported to still greater distances and in greater volume down the principal river-courses between the mountains and the sea.

Mud produced by Glaciers.

They who have visited Switzerland are aware that every torrent which issues from an icy cavern at the extremity of a glacier is densely charged with an impalpable powder, produced by the grinding action to which the subjacent floor of rock and the stones and sand frozen into the ice are exposed in the manner before described. We may therefore readily

* Chemical and Physical Geology, vol. i. p. 132.