

undercliff of the Isle of Wight, the cliffs west of Brandon Head, county Kerry, the basalt escarpments of Antrim, and the edges of the great volcanic plateaus of Mull, Skye, and Raasay, furnish illustrations of such old and prehistoric landslips.

On a more imposing scale, and interesting from its melancholy circumstances being so well known, was the celebrated fall of the Rossberg, a mountain (*a*, Fig. 113) situated behind the Rigi in Switzerland, rising to a height of more than 5000 feet above the sea. After the rainy summer of 1806, a large part of one side of the mountain, consisting of steeply sloping beds of hard red sandstone and conglomerate (*b*), resting upon soft sandy layers (*c c*), gave way. The lubrication of the lower surface by the water having loosened the cohesion of the overlying mass, thousands of tons of solid rock, set loose by mere gravitation, suddenly swept across the valley of Goldau (*d*), burying about a square German mile of fertile land, four villages containing 330 cottages and outhouses, with 457 inhabitants.¹⁰⁶ In 1855 a mass of débris, 3500 feet long, 1000 feet wide, and 600 feet high, slid into the valley of the Tiber, which, dammed back by the obstruction, overflowed the village of San Stefano to a depth of 50 feet, until drained off by a tunnel.

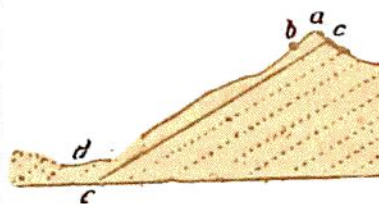


Fig. 113.—Section illustrating the Fall of the Rossberg.

§ 3. Brooks and Rivers

These will be considered under four aspects:—(1) sources of supply, (2) discharge, (3) flow, and (4) geological action.¹⁰⁶

1. **Sources of Supply.**—Rivers, as the natural drains of a land-surface, carry out to sea the surplus water after evaporation, together with a vast amount of material worn off the land. Their liquid contents are derived partly from rain (including mist and dew) and melted snow, partly from springs. In a vast river-system, like that of the

¹⁰⁶ Zay, "Goldau und seine Gegend." Baltzer, Neues Jahrb. 1875, p. 15. Upward of 150 destructive landslips have been chronicled in Switzerland. Riedl, Neues Jahrb. 1877, p. 916.

¹⁰⁶ An excellent monograph on a river is C. Lenthéric's "Le Rhône, histoire d'un fleuve," 2 vols. Paris, 1892.