

gable almost up to their outflow. In such circumstances, lakes, either temporary, like the Lake Zirknitz in Carniola, or perennial, may be formed over the sites of the broken-in caverns; and valleys may thus be deepened, or gorges may be formed.¹⁰⁰ Mud, sand, and gravel, with the remains of plants and animals, are swept below ground, and sometimes

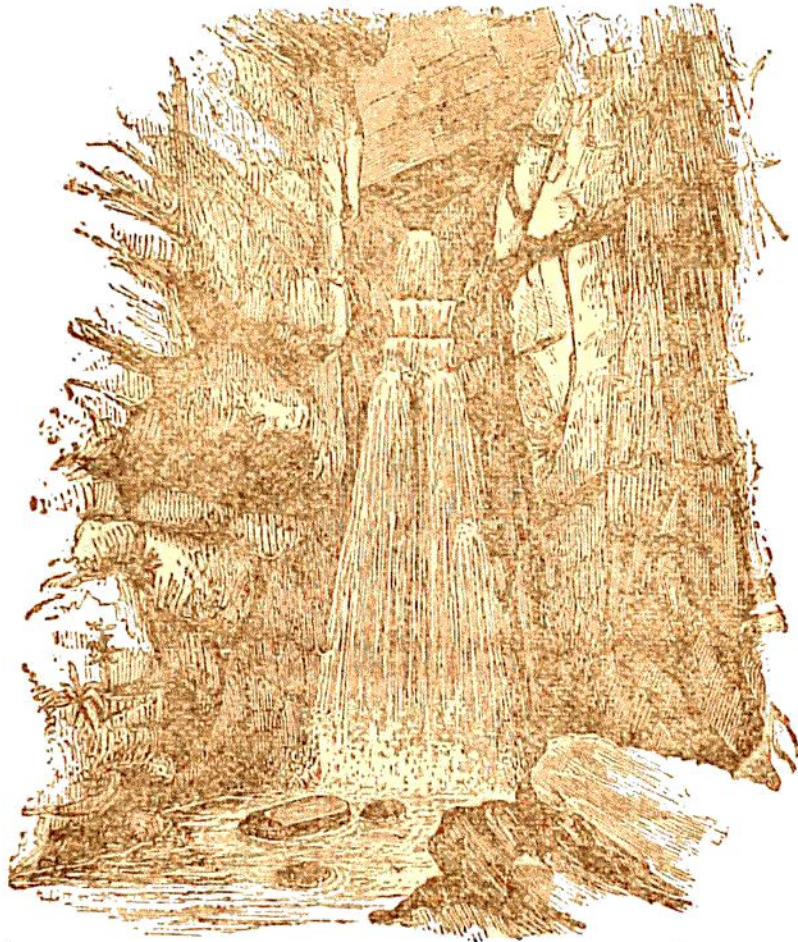


Fig. 111.—Section of the channel of an underground stream.

accumulate in deposits of loam and breccia, such as are so often found in ossiferous caverns (Figs. 109, 110).

As from time to time the roofs of underground chambers, weakened by the constant abstraction of mineral matter, collapse, or large portions are detached from them and fall on the floors below, sudden shocks are generated which are

¹⁰⁰ See interesting accounts by M. Martel of the subterranean channels of the Causses or Jurassic limestone plateaus of Gard and Lozère in the South of France, and of the formation of cañons there. *Compt. Rend.* 1888. *Bull. Soc. Geol. France*, xvii. 1889, p. 610.