

All volcanic phenomena can be explained by the theory we have already indicated, of fractures in the solid crust of the globe resulting from its cooling. The various phenomena which existing volcanoes present to us are, as Humboldt has said, "the result of every action exercised by the interior of a planet on its external crust."* We

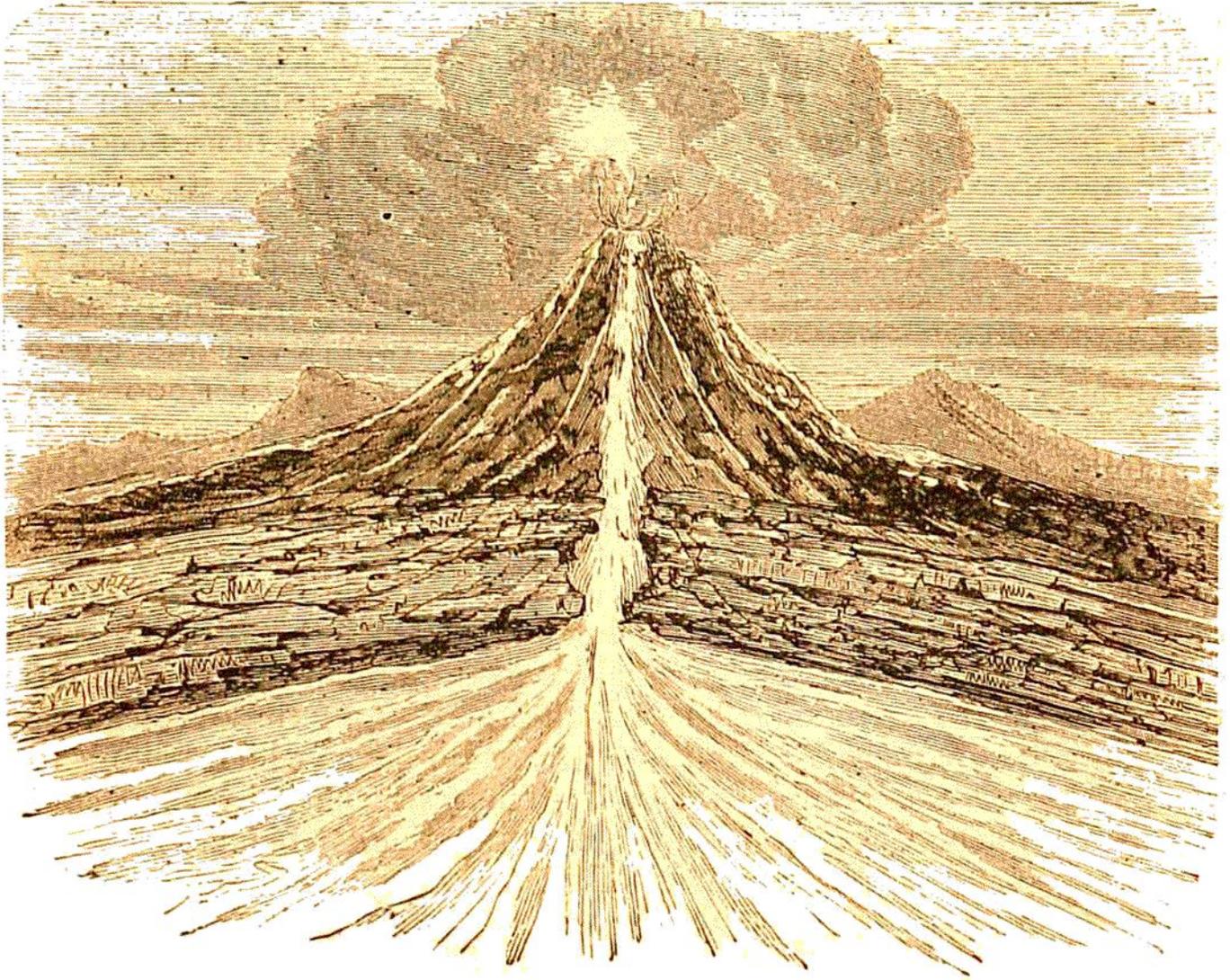


Fig. 9—Section of a volcano in action.

designate as volcanoes all conduits which establish a permanent communication between the interior of the earth and its surface—a conduit which gives passage at intervals to eruptions of *lava*, and in Fig. 9 we have represented, in an ideal section, the geological mode of action of volcanic eruptions. The volcanoes on the surface of the globe, known to be in an occasional state of activity, number about

* "Cosmos," vol. i., p. 25. Bohn.