

are seen to have a glazed or vitreous coating, and in this respect exactly resemble scoriaceous lavas, or the slags of furnaces.

The annexed figure represents a fragment of stone taken from the upper part of a sheet of basaltic lava in Auvergne. One half is scoriaceous, the pores being perfectly empty; the other part is amygdaloidal, the pores or cells being mostly filled up with carbonate of lime, forming white kernels.

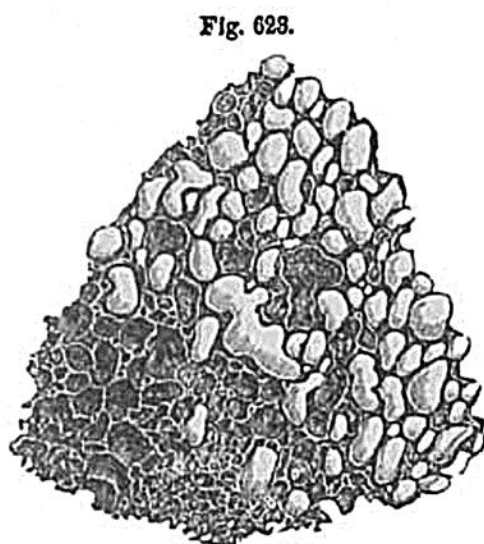


Fig. 628.

Scoriaceous lava in part converted into an amygdaloid.  
Montagne de la Veuille, Department of Puy de Dôme, France.

*Lava*.—This term has a somewhat vague signification, having been applied to all melted matter observed to flow in streams from volcanic vents. When this matter consolidates in the open air, the upper part is usually scoriaceous, and the mass becomes more and more stony as we descend, or in proportion as it has consolidated more slowly and under greater pressure. At the bottom, however, of a stream of lava, a small portion of scoriaceous rock very frequently occurs, formed by the first thin sheet of liquid matter, which often precedes the main current, or in consequence of the contact with water in or upon the damp soil.

The more compact lavas are often porphyritic, but even the scoriaceous part sometimes contains imperfect crystals, which have been derived from some older rocks, in which the crystals pre-existed, but were not melted, as being more infusible in their nature.

Although melted matter rising in a crater, and even that which enters a rent on the side of a crater, is called lava, yet this term belongs more properly to that which has flowed either in the open air or on the bed of a lake or sea. If the same fluid has not reached the surface, but has been merely injected into fissures below ground, it is called trap.

There is every variety of composition in lavas; some are trachytic, as in the Peak of Teneriffe; a great number are basaltic, as in Vesuvius and Auvergne; others are Andesitic, as those of Chili; some of the most modern in Vesuvius consist of green augite, and many of those of Etna of augite and Labrador-felspar.\*

*Scoriæ* and *Pumice* may next be mentioned as porous rocks, produced by the action of gases on materials melted by volcanic heat. *Scoriæ* are usually of a reddish-brown and black color, and are the cinders and slags of basaltic or augitic lavas. *Pumice* is a light, spongy, fibrous substance, produced by the action of gases on trachytic and other