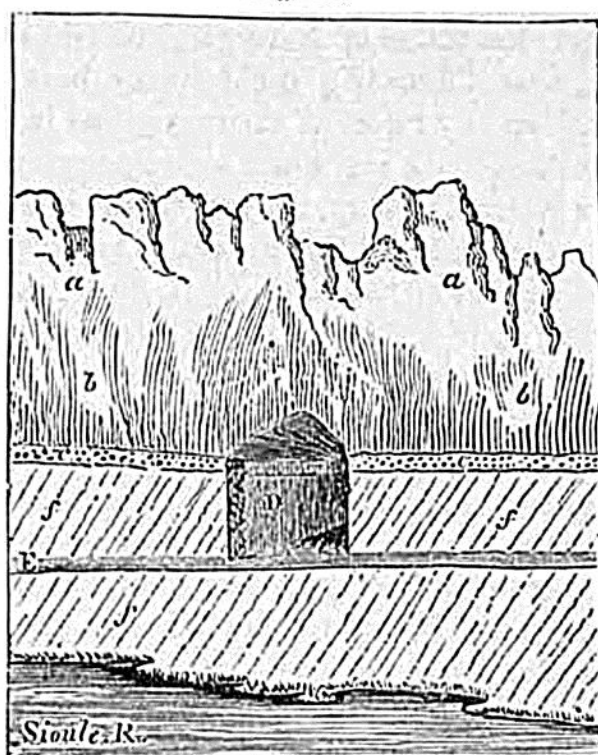


we see a great mass of black and red scoriaceous lava becoming more and more columnar towards its base. (See fig. 677). Below this is a bed

Fig. 677.

- a. Scoriaceous lava.
- b. Columnar basalt.
- c. Gravel.
- D. Ancient mining gallery.
- E. Pathway.
- f. Gneiss.



Lava-current of Châluzet, Auvergne, near its termination.\*

of sand and gravel 3 feet thick, evidently an ancient river-bed, now at an elevation of 25 feet above the channel of the Sioule. This gravel, from which water gushes out, rests upon gneiss, *f*, which has been eroded to the depth of 25 feet at the point where the annexed view is taken. At *D*, close to the village of Les Combres, the entrance of a gallery is seen, in which lead has been worked in the gneiss. This mine shows that the pebble-bed is continuous, in a horizontal direction, between the gneiss and the volcanic mass. Here again it is quite evident, that, while the basalt was gradually undermined and carried away by the force of running water, the cone whence the lava issued escaped destruction, because it stood upon a platform of gneiss several hundred feet above the level of the valley in which the force of running water was exerted.

*Puy de Pariou.*—The brim of the crater of the Puy de Pariou, near Clermont, is so sharp, and has been so little blunted by time, that it scarcely affords room to stand upon. This and other cones in an equally remarkable state of integrity have stood, I conceive, uninjured, not *in spite* of their loose porous nature, as might at first be naturally supposed, but in consequence of it. No rills can collect where all the rain is instantly absorbed by the sand and scorix, as is remarkably the case on Etna; and nothing but a waterspout breaking directly upon the Puy de Pariou could carry away a portion of the hill, so long as it is not rent or engulfed by earthquakes.

\* Lyell and Murchison, Ed. New Phil. Journ. 1829.