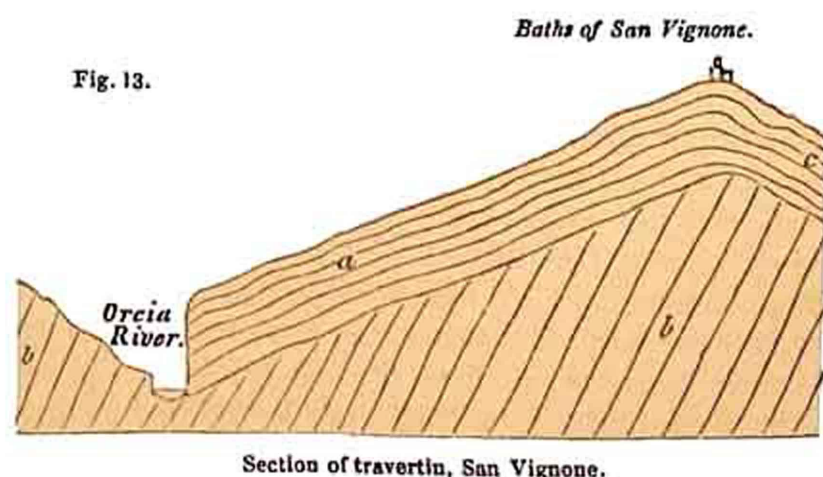


descending the slanting sides of hills, very much in the manner of lava currents, except that they are of a white colour, and terminate abruptly when they reach the course of a river. These consist of a calcareous precipitate from springs, some of which are still flowing, while others have disappeared or changed their position. Such masses are frequent on the slope of the hills which bound the valley of the Elsa, one of the tributaries of the Arno, which flows near Colle, through a valley several hundred feet deep, shaped out of a lacustrine formation, containing fossil shells of existing species. The travertin is unconformable to the lacustrine beds, and its inclination accords with the slope of the sides of the valley. One of the finest examples which I saw, was at the Molino delle Caldane, near Colle.

The Sena, and several other small rivulets which feed the Elsa, have the property of lapidifying wood and herbs; and, in the bed of the Elsa itself, aquatic plants, such as *Charæ*, which absorb large quantities of carbonate of lime, are very abundant. Carbonic acid is also seen in the same valley, bubbling up from many springs where no precipitate of tufa is observable. Targioni, who in his travels has mentioned a great number of mineral waters in Tuscany, found no difference between the deposits of cold and thermal springs. They issue sometimes from the older Apennine limestone, shale, and sandstone, while, in other places, they flow from more modern deposits; but even in the latter case, their source may probably be in or below the older series of strata.

*Baths of San Vignone.*—Those persons who have merely seen the action of petrifying waters in our own country, will not easily form an adequate conception of the scale on which the same process is exhibited in those regions which lie nearer to the active centres of volcanic disturbance. One of the most striking examples of the rapid precipitation of carbonate of lime from thermal waters, occurs in the hill of San Vignone in Tuscany, at a short distance from Radicofani, and only a few hundred yards from the high road between Sienna and Rome. The spring issues from near the summit



of a rocky hill, about 100 feet in height. The top of the hill stretches in a gently inclined platform to the foot of Mount Amiata,