

denly that the first warning was the discovery of ashes on the hats of peons at work on the spot. These infernal snowflakes 'soft and mute,' preceded the tempest. It burst in all its fury by the time the natives had fled to the hills.

Jorullo appears to have burned for about a year, and to have ejected in that time four sheets of lava, and covered a tract four miles square, thenceforward known from its utter desolation, as the Malpays or Bad Lands. It, with five other cones reared at the same time, and somewhat less in height, emits in our day only a little smoke. The plain around it is nevertheless covered with jets of smoke and vapour from thousands of little fumaroles three or four feet high, styled by the inhabitants *hornitos*, or ovens. This lava-strewn plateau was thought by Humboldt to have been raised five hundred feet above the surrounding

level at the instant of Jorullo's appearance or just before it; but modern explorers agree in the opinion that what elevation exists is due to emissions of lava. It does not exceed a fourth of the distance from the original surface to the summit of the new mountain, nor does it amount in bulk to a greater mass than that repeatedly ejected at a single eruption elsewhere.

Izalco, in San Salvador, is ten years younger than Jorullo. Its birthday was the 25th of February, 1770. It came up through a farm, the occupants of which had for some months been disturbed by subterranean shocks and noises. The earth opened half a mile from the steading, and sent out lava and smoke. No tumescence is mentioned. It could not possibly have been great enough to give any countenance to the bubble theory, or the hacenderos would have been abruptly poured off the sides of their unfortu-



EXTINCT CRATERS IN AUVERGNE.

nate plantation. They had no care but to get out of the way of the cinders, which were borne by the wind eighteen miles.

Unlike the two others, Izalco did not exhaust itself with a single effort. It continues, and still continues, to rage and to increase in height. It has

attained the stature of Vesuvius, and there is no reason why it should not, in the remote future that shall make our age geologic, rank with the existing giants of the Cordilleras, created doubtless in substantially the same way.

It is barely a quarter of a century