

whence descending on the south, it re-crosses the Derwent, but soon crosses it a third time, and again within two-thirds of a mile lower down finally re-crosses it at the paper-mill near Matlock bath, thence ranging across what is called the Wallet to Bonsal dale, where it abuts against the fault so often described; the depression however of strata included in the angle bounded by that fault is not sufficient entirely to conceal this toadstone, but only throws it a little west of its former line of bearing, so that it ascends through the wood on the south side of the dale, and traversing that angular area in a south-westerly direction, finally abuts against its southern side so nearly at the same point where the third toadstone (as before described) occurs on the opposite side of the fault, the strata being on that side elevated, that without attentive examination it might easily be mistaken for a continuation of the same basset: this point is one-third of a mile west of Middleton.

Such being the course of this stratum along its entire line of basset, it remains only to mention its occurrence in two other situations, where on the east of that regular basset it is thrown up prematurely by a line of fault* ranging round three sides of a parallelogram including the villages of Bastow, Bakewell, Yolgrave and Bceley, on its north-west and south borders; and elevating the included strata, by what is technically termed a trap, up to the east: by this fault (which Mr. Farey calls the Bakewell fault) the first toadstone is thus thrown up just above Bakewell on the course of the river Wye; (here this fault, and the effect it produces, are represented in the accompanying section,) more to the south at Over Haddon where the second limestone is also seen; and still further in the same direction at Yolgrave. II. The last instance we have to mention of the appearance of this toadstone is at some distance from the main limestone area, where the valley of Ashover (three miles north-east from Matlock) exhibits a deep denudation, cutting entirely through the millstone-grit and shale, and thus exposing the subjacent limestone, which also rises by a flexure and saddle, to the same point; here the toadstone is seen as usual underlying the first limestone; and it is believed here to possess a thickness much greater than ordinary.

We have entered into a much more minute detail than we usually allow ourselves of the localities of these strata, since the important theoretical inferences which have been built on them render it desirable that every facility should be given to

* Mr. Watson, however, explains these repetitions of the beds by a mere undulation of the strata unaccompanied by any fault.