

fortress. Kilnsey Crag is a well-known example in Wharfedale (see Pl. XV.).

Malham Cove and Giggleswick Scar are examples of grand and noble cliffs—the former 285 feet high—occasioned by the Craven fault, which, running nearly E. and W., causes at several points enormous vertical faces of limestone, which are opposed to quite different strata on the south, and, wherever the ground admits of it, are very clear and prominent above them. From under Malham Cove the Aire issues with a perpetual current. The long range of Giggleswick Scar gives out the feeble intermitting spring, known as the Ebbing and Flowing Well.

The Swallow Holes which have been mentioned offer many curious phænomena. We may see them in action, at the foot of slopes of grit and shale, especially after heavy rains have produced many small rills; for these are often found running into vertical pits, open, or masked by heath, or choked by earthy materials, and the sides of these pits are smoothed and grooved by the water, always more or less acidulated by the shales and the decaying vegetation of the hills.

In dry seasons these pits may be inspected to various depths, and may be followed in rings round the mountain slopes, a little above the upper edge of every limestone bed. The rains and rills thus swallowed up by the dry and fissured and perforated limestones, unite and find their way to underground channels, or caverns, which are nowhere more remarkable than in Yorkshire.

In some cases these are little else than natural fissures, enlarged by the watery currents; in other cases the ground is 'faulty,' or 'shaken,' or in some way weakened along the line of the caverns, where, thus broken, it has suffered a greater amount of waste than usual.

Ingleborough Cave, which has been explored by Mr. Farrer, and preserved from wanton injury, is highly instructive as to the origin of the Craven caverns generally. It is specially rich in illustrations of the varied effects of subterranean currents on its floor; and the endless diversity of sparry stalactites and stalag-