



FIG. 69.

INGLEBOROUGH. PENYGHENT.

their minor escarpments facing west, the railway emerges, after crossing the Trent, on a second plain, through which, swelled by many tributaries—the Idle, the Don, the Calder, the Aire, the Wharfe, the Nidd, the Ure, the Swale, and the Derwent—the Trent and the Ouse flow to enter the famous estuary of the Humber.

Passing north by York the same plain forms the bottom of the low broad valley that lies between the westward rising dip-slopes of the Millstone Grit, &c., and the bold escarpment of the Yorkshire Oolites on the east, till at length it passes out to sea on either side of the estuary of the Tees. The adjoining diagram represents the general structure of the region on a line from Ingleborough on the west to the Oolitic moors.

On the west lie the outlying heights of the ancient camp of Ingleborough, and of Penyghent, capped with Millstone Grit and Yoredale rocks (2), which, intersected by valleys, gradually dip eastward, the average slope of the ground over long areas often corresponding with the dip of the strata in the manner shown in the diagram,<sup>1</sup> till they slip under the low escarpment of Magnesian Limestone (3).

Let the reader attentively consider this part of the diagram, and he may I hope convince himself how little ordinary valleys, large or small, are directly pro-

<sup>1</sup> This kind of slope is often called a dip-slope.