

CHAPTER XVI

DENUDATION OF THE LOWLANDS

THE most cursory examination of the geological structure of the Midland Valley suffices to show that its comparatively level or undulating surface is not due to a horizontal arrangement of the rocks. A section across any part of the district proves that the strata, so far from being flat, are curved and fractured to a remarkable degree. If no change had been wrought upon the surface after the rocks began to bend, we should now find them sinking and rising into broad folds, the bottoms of the basins being sometimes several thousand feet below the tops of the arches. The lines of fault also would be marked by long ranges of vertical precipice, sometimes several thousand feet high. It is not in the least probable, however, that these geological structures ever showed themselves in such a marked way at the surface. The subterranean movements by which the rocks were folded were probably very slow. Hence the arches and fissure-walls, as they rose into the air, would at once be attacked by the denuding agents, and their detritus would be spread over the troughs that were sinking beneath the water. If the rate at which the rocks were bent and fractured and that at which they were wasted chanced to be equal, the upward