

by which the sills were supplied. (5) They are commonly most close-grained at their upper and under surfaces, and most coarsely crystalline in the central portions. (6) They are rarely cellular or amygdaloidal. (7) The rocks both above and below them are usually hardened and otherwise more or less altered.

As a well-known and (from its association with the Huttonian and Wernerian disputes) classical example of this structure, the mural escarpment called Salisbury Crags at Edinburgh may be described (Fig. 284). This is a sill of crystalline diabase (dolerite), which can be traced for a distance of 1500 yards, lying among the red and gray sandstones, shales, and impure limestones which form the base

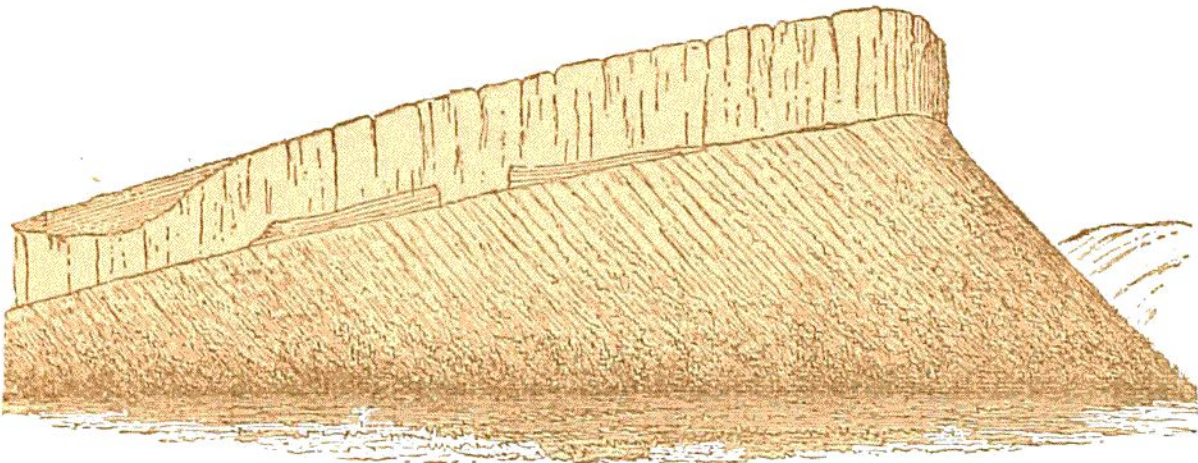


Fig. 284.—Diagrammatic view of Salisbury Crags, Edinburgh—a sill in Carboniferous sandstones and shales.

of the Carboniferous system of central Scotland. As the general dip of the rocks is northeasterly, the sill forms a lofty cliff facing west and south, from the base of which a long grassy slope of *débris* stretches down to the valley in front. Its thickness at the highest part is about 80 feet, but at a distance of 650 yards to the north this thickness diminishes to less than a half. At first, the diabase might be taken for a conformable sheet, regularly interposed between the sedimentary strata. But an examination of the beds on which it rests shows that it transgressively passes over a succession of platforms, and eventually comes to rest at the east end on strata somewhat lower in geological position than those at the north end. Moreover, another parallel intrusive sheet intercalated in a lower portion of the sandstone