

which there are several formations in our State, which will be noticed presently.

More frequently, however, there are divers other minerals, including oxides of metals disseminated through the stone, which produce the many varieties of color in sandstones. When sandstones are very fine-grained, and more or less mixed up with fine earthly matter, they are called slaty sandstones.

We have them of every shade of gray, slate color, brown, yellow, and red, usually more or less dull. In some varieties of the slate color, gray and brown, the color is in part owing to carbonaceous matters. The color of yellow sandstones is mostly due to the presence of hydrous peroxide of iron, whilst the red is colored by anhydrous peroxide of iron.

There are also green sandstones whose color is given by silicate of protoxide of iron. These become yellowish and brown by weathering.

Oxides of iron often form a large proportion of the cement of sandstones, and they are rarely free from the oxides of manganese.

2.—CONGLOMERATE OR PUDDINGSTONE.

When instead of sand the rock is mainly composed of pebbles, whose interstices are filled with grains of sand, and the whole are cemented together, the above names are applied.

These pebbles are mostly quartz, but we sometimes find them to consist in part of granite, gneiss, amphibolite, and other rocks and minerals, which have resisted attrition.

In some localities there are also conglomerates, consisting of the remains of limestones. We have in Frederick county one formation of that kind, which is the better known from the fact of the use of the stone in the old Representative Hall at Washington

It consists of fragments of limestone varying from the size of a pea to that of a man's head, with here and there one of hard red sandstone, the whole held together by means of a calcareous and feruginous cement. Its component fragments have been but slightly rounded by attrition, so that it approximates in character to that of a breccia.

3.—BRECCIA.

This consists of parts of other rocks, which by some natural causes have been broken into small fragments, their arrangement being disturbed and afterwards cemented together without being rounded by rolling against each other in swift running water.