

be the cause of the green spots in the purple slate, they form a very objectionable feature, being liable to decompose under the weather, and allow the rain to leak through the roof. A small speck of iron pyrites can generally be detected in the centre of each of the spots, and these may have had something to do with their formation. The slate quarries of western Vermont have a common disadvantage, in the low underlie of the cleavage, which in several cases is less than 20 degrees, thus requiring a much larger expenditure in working, than when the cleavage is vertical, or underlying at a high angle to the horizon. In some of the quarries the underlie, which is always to the eastward, is from 20 to 40 degrees, but unless the angle is sufficiently high to give a self-supporting hanging wall, a great loss is incurred in removing or supporting the superincumbent mass.

About a dozen quarries are worked on the western belt. The principal one is the Eagle Slate Quarry, situated a mile south of Hydeville, and which produces about 10,000 squares a year. Here the underlie of the cleavage, which nearly coincides with the dip of the strata, is at an angle of only 17 degrees. Roofing slates alone are made at this quarry, and bring from \$2.50 to \$3.50 a square at Hydeville depot. In the township of Castleton, the West Castleton Railroad and Slate Company manufacture 150 squares of slate a month, besides sawing from 15 to 18,000 square feet of slab slate. The cleavage here underlies to the eastward at an angle of 40 degrees. In 1857, the second year of operation, the sales of the produce of this quarry amounted to \$60,000.

A planed surface of slate is found to retain remarkably well the compounds used in enamelling, even in the presence of heat or acids, and hence slab slate can be marbleized and used in a great variety of ways. The western Vermont slate is marbleized for jambs and mantelpieces, table and bureau tops, billiard beds and kerosene lamp bottoms. These are successfully made to imitate all kinds of ornamental marble, and are sold in immense numbers at one fourth the price of real marble. The cost of marbleized mantels varies from 10 to 125 dollars, according to the workmanship which has been expended upon them. Writing slates are also prepared in great numbers at the western quarries; and there is a large demand for unplanned slabs for sanitary and other purposes. The foregoing facts in regard to the slates of Vermont are condensed from Prof. Hitchcock's report on the geology of the state.