

## CHAPTER VII.

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### ORES OF COPPER, LEAD, ZINC, CHROME, MANGANESE AND GOLD.

These are grouped into one chapter, because of their association in what are termed metalliferous districts, of which we have several in Maryland.

The first district scarcely deserves the name, because it exhibited but a thin seam containing galena or sulphuret of lead, and blende or sulphuret of zinc. It was discovered many years since, but was not considered worth working. Its position is in gneiss rock on Jones' Falls, near the north-western suburbs of Baltimore.

The second comprises the vicinity of the Barehills, lying seven to eight miles from Baltimore, on the Falls turnpike road. It was from thence that chrome ore was first obtained in quantity sufficient for the production of the pigments which it affords, as well as the bichromate of potash for dyeing. The formation at the Barehills consists of serpentine, (a magnesian rock,) surrounded by hornblende slate on the south and west, and mica slate on the north and east.

The chrome ore consists of 60 per cent. of oxide of chrome, combined with 40 per cent. of oxide of iron, but, as usually mined, it is more or less mixed with the adjacent rock, so as to reduce the percentage of the metallic oxides. It is imbedded in irregular masses in the serpentine, and mostly near its outer edges. This irregularity presents difficulties to the miner, and often renders the pursuit of the ore uncertain.

Near the south-eastern edge of the serpentine a valuable vein of copper ore was discovered some years since, and after being worked for a time operations were suspended. The work was resumed two years since under new owners, who have worked the mine in a systematic manner.

An inclined shaft has been extended downwards into the vein (which dips at an angle of forty-five degrees) to a distance of five hundred feet. The ore, which is pyritous copper, has improved in quantity and quality as the workings progressed downwards, and at this time it presents a most promising appearance. The sinking of the shaft to so great a depth having proved the existence of a valuable mine, levels, as the horizontal tunnels are termed, will next be cut into the vein from the shaft. When these progress to the proper distance the *stopeing*, which means