

A great advantage possessed by this in common with the Glasgow black band, consists in the coal mined with it. The mixture of ore and coal is placed in long piles or ricks, and upon being fired, are found to contain sufficient fuel for roasting, which is necessary for all the carbonates of the coal regions. Before roasting, three and one-third tons of ore would be required for one ton of metal; but the roasted ore, owing to the loss of carbonic acid and water, is found to contain more than forty-two per cent. of iron—so that two and three-eighths tons only are needed for a ton of metal.

As shown in the table of strata, there are numerous courses of ore, most of which will, in my opinion, prove too costly at the present value of labor. There are, however, many others besides those above noticed that may be expected to prove valuable, if properly worked.

As was remarked when treating of the coal beds in the Meadow Mountain and the Youghiogheny coal fields, there have been no sections excavated so as to expose all the coal and iron of those regions. In fact, so little has been done in this way, that a satisfactory account cannot at this time be given. Whilst we are ignorant of the number of beds or courses of ore, we know they are well worthy of attention. I have, especially on the western side of the Youghiogheny River, met with ores of the richest kinds found in the coal regions.

## REMARKS UPON THE SMELTING AND MANUFACTURE OF IRON IN MARYLAND.

It has been shown in the brief account which has been given of the iron ores of our State, that we have every useful variety and in ample quantity. They are distributed over a large portion of our territory and generally in close proximity to our railroads and canals. In Alleghany county they are contiguous to exhaustless supplies of coal, the quality of which for the purpose of iron smelting and manufacture is equal to any in the world. By means of the canal and railroad, when not interrupted by hostile armies, the metal is cheaply transported to distant markets and the coal supplied to iron works situated near them.

The low cost of iron in Great Britain is owing in part to cheap labor and also to the application of ample capital to large establishments in their coal regions, within which they have abundance of coal, ore and other materials required.

Our coal fields are similar and possess equal advantages, and the difference in the value of labor has materially lessened within the last ten or fifteen years. This is owing to the vast emigration of British miners to various parts of this continent and to Australia. We now, in fact, lack more than anything else the judicious *application* of ample capital to this branch of industry.