

In one branch we have a decided advantage over Great Britain, and that is in the manufacture of charcoal iron. She has not this fuel, whilst in Maryland there are ample forests near which some of our furnaces are situated, and there are other points, especially in the mountain region, where charcoal furnaces might be advantageously established.

Charcoal iron is absolutely necessary for the manufacture of the best kinds of steel, and many other purposes. Britain imports its immense supplies from Sweden and Russia for these uses.

We could in Maryland produce the different kinds of iron not only in sufficient quantity for our own purposes, but also for exportation to less favored States.

In connection with this branch of industry it is well to advert to an important discovery in England a few years since by Mr. Bessemer. By this process the fused metal from the smelting furnace is promptly converted either into metal fit for being rolled or hammered into bars or plates, or into cast-steel, at the pleasure of the operator.

The loss of metal by the old mode of producing malleable iron or steel out of the pig metal is twice as great as by the process of Bessemer, which has been fully proven to a practical success.

By this means wrought iron is produced from the pig at less than half the cost of labor required by the old method of refining and puddling. The difference in favor of cast-steel is still greater, so that this material is already used in England for the manufacture of superior cannon.

I have not space to describe the process of Bessemer, but I am satisfied it will have a great tendency to revive this important branch of industry in our State.

The cast-steel which may be produced from most of the Maryland iron (especially that made with charcoal) cannot fail to prove of good quality, because of the well-known excellence of Maryland iron.

Iron Pyrites or Sulphuret of Iron.

Although not applicable to the smelting of iron, yet it is from this mineral that copperas, so largely used in the arts, is obtained. It was formerly made on a large scale at Cape Sable on Magothy River, in Anne Arundel county. Owing to the production of copperas more cheaply at other points, the manufacture was long since discontinued. A slight increase of price, however, would cause its production to be resumed to such an extent as to supply all our wants.

In connection with this article it may be stated that alum has been and may again be produced in ample supplies from the same localities, which are among the lower beds of the Green sand formation. In addition to the ample supplies of iron pyrites on