CHINESE METHOD OF MANUFACTURING VERMILION.

BY HUGH MAC CALLUM.

THERE are three vermilion works in Hong Kong, the method of manufacture being exactly the same in each. The largest works consume about six thousand bottles of mercury annually, and it was in this one that the following operations were witnessed :—

First Step.—A large, very thin iron pan, containing a weighed quantity, about 14 pounds, of sulphur, is placed over a slow fire, and two-thirds of a bottle of mercury added ; as soon as the sulphur begins to melt the mixture is vigorously stirred with an iron stirrer until it assumes a black pulverulent appearance with some melted sulphur floating on the surface ; it is then removed from the fire and the remainder of the bottle of mercury added, the whole well stirred. A little water is now poured over the mass, which rapidly cools it ; the pan is immediately emptied, when it is again ready for the next batch. The whole operation does not last more than ten minutes. The resulting black powder is not a definite sulphide, as uncombined mercury can be seen throughout the whole mass ; besides, the quantity of sulphur used is much in excess of the amount required to form mercuric sulphide.

Second Step.—The black powder obtained in the first step is placed in a semi-hemispherical iron pan, built in with brick, and having a fireplace beneath, covered over with broken pieces of porcelain. These are built up in a loose porous manner, so as to fill another semi-hemispherical iron pan, which is then placed over the fixed one and securely luted with clay, a large stone being placed on the top of it to assist in keeping it in its place. The fire is then lighted and kept up for sixteen hours. The whole is then allowed to cool. When the top pan is removed the vermilion, together with the greater part of the broken porcelain, is attached to it in a coherent mass, which is easily separated into its component parts. The surfaces of the vermilion which were attached to the Porcelain, have a brownish-red and polished appearance, the broken surfaces being somewhat brighter and crystalline.

Third Step.—The sublimed mass obtained in the second step is pounded in a mortar to a coarse powder, and then ground with water between two stones, somewhat after the manner of grinding corn. The resulting semi-fluid mass is transferred to large vats of water, and allowed to settle, the supernatant water removed, and the sediment dried at a gentle heat; when dry, it is again powdered, passed through a sieve and is then fit for the market.—*Oil and Drug News.*