

UNITED STATES PATENT OFFICE.

SAMUEL CABOT, OF BROOKLINE, MASSACHUSETTS.

PROCESS OF RECOVERING FLOCCULENT CARBON.

SPECIFICATION forming part of Letters Patent No. 581,391, dated April 27, 1897.

Application filed November 19, 1896. Serial No. 612,700. (No specimens.)

To all whom it may concern:

Be it known that I, SAMUEL CABOT, of Brookline, in the State of Massachusetts, have invented a new and useful Process of Recovering Carbon in the Flocculent Form from Carbonaceous Residues of the Manufacture of the Prussiates of the Alkalies, of which the following is a specification.

The invention consists in the process hereinafter described and also in a new and useful product resulting from the said process.

In the manufacture of the cyanids and ferrocyanids of the alkalies in the ordinary manner from leather, hoofs, hair, and other animal tissues, after these salts have been washed or separated from the mass of materials treated, there remains a residue, mostly insoluble, consisting mainly of a mixture of carbon in the granular form with iron and small quantities of carbonate, sulfid, and cyanid of an alkali. This residue has hitherto been regarded as worthless. From it, by treatment with an aqueous solution of a mineral acid or an acid salt, (sulfuric acid well answers the end,) I obtain an article suitable for almost any purpose for which a black pigment is required. The granular carbon of the residue from the manufacture of the prussiates becomes flocculent, its color being thus made more intense and its coloring power enormously increased. Moreover, the article obtained mixes readily with water, which quality renders it more convenient for many purposes than lampblack.

In practicing the invention the carbonaceous residues are placed in a suitable kettle, the aqueous solutions added, and the whole

brought to a boil. This temperature is maintained an hour, more or less, when the precipitate is allowed to fall and is washed by decantation and filtration. The iron and the alkaline salts are thereby in great measure removed, and there remains, as stated above, carbon in the flocculent form with Prussian blue, or a trace of Prussian blue, also in flocculent form, precipitated thereon. More or less Prussian blue is formed by the action of the original prussiates upon the iron salts produced by the action of the acid or acid salt in solution, according to the original construction of the residue subjected to the treatment.

I claim—

1. The herein-described process of producing flocculent carbon which consists in treating the carbonaceous residues of the manufacture of prussiates of the alkalies with an aqueous solution of a mineral acid, or an acid salt, substantially as described.

2. The herein-described process of producing a combination of carbon and Prussian blue both in the flocculent form, which consists in treating the carbonaceous residues of the manufacture of prussiates of the alkalies with an aqueous solution of a mineral acid, or an acid salt, substantially as described.

3. The combination of carbon with Prussian blue, both in the flocculent form, substantially as described.

SAML. CABOT.

Witnesses:

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EDWARD CUNNINGHAM.