

United States Patent Office.

JOHN CARRINGTON SELLARS, OF BIRKENHEAD, ENGLAND.

Letters Patent No. 79,504, dated June 30, 1868.

IMPROVED METAL-FOUNDERS' BLACKING.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, JOHN CARRINGTON SELLARS, of Birkenhead, in the county of Chester, England, manufacturing chemist, have invented "a new and improved Method of Utilizing the Residuum from Distillation;" and I do hereby declare that the following is a full and exact description of the nature and particulars thereof; that is to say—

In the process of refining petroleum, paraffine, coal, shale, and other mineral oils and tars, such as asphalt and bitumen, by distillation, and after nearly all, or all, the liquid and gaseous portions or products have been driven off, there is left in the still a pasty or dry residue or coke, which consists principally if not entirely of carbon. I make metal-founders' blacking of the said residue or coke, and thereby utilize it. This metal-founders' blacking I propose to employ in the place of the unctuous powdery substance known as "blacking," and used for coating the inner surfaces of moulds formed to receive liquid iron or other metal, for mixing with loam, making "black-wash," and for other foundry purposes.

My mode of treating or preparing the above-mentioned residue or coke, so as to render it uniformly suitable for the purpose above mentioned, consists of reducing it to a state of fine mechanical division or powder, by grinding, sifting, or blowing, but I would have it understood that I prefer the grinding process, employing horizontal burr-stones, edge runners, or rolls.

With some residues or cokes, and with nearly all those from mineral oils, subjected to the distillatory process to the ordinary extent, I have found it necessary, before reducing them to powder, to subject them to heat or calcination before grinding or otherwise reducing them to fine powder. In effecting this I place the said residues or coke in a closed oven or retort—a retort such as is used in the manufacture of coal-gas answers well; one of the same construction but of larger size could be used more economically—and raise the temperature of the material being operated on to a dull red heat, for a period of from one to four hours, according to circumstances. Those residues or cokes which leave the still in the dryest condition require calcination for the shortest period, and *vice versa*; in ordinary practice two hours will be sufficient. After calcination, I withdraw the material, preferably into vessels from which air is excluded. Withdrawal from the retort or oven into vessels open to or into the air, I would have it understood, does but very little injury.

Having now described the nature of my said invention, and particularized the mode of carrying the same into beneficial effect, in such terms that others acquainted with the manufacture will be enabled to carry the invention into use, I would have it understood that what I claim, is—

Utilizing the residue or coke left from mineral oils and other like substances in stills, after the distillatory process, by employing it for metal-founders' blacking, substantially in the manner hereinbefore described.

In testimony whereof, I have hereunto set my name in presence of two subscribing witnesses.

Witnesses:

JOHN T. KING,
E. J. CHARLISLE.

JOHN CARRINGTON SELLARS.