

UNITED STATES PATENT OFFICE.

SAMUEL A. PETO, OF LONDON, ENGLAND.

MANUFACTURE OF PLUMBAGO CRUCIBLES, &c.

SPECIFICATION forming part of Letters Patent No. 238,806, dated March 15, 1881.

Application filed October 25, 1880. (No specimens.) Patented in England April 23, 1880.

To all whom it may concern:

Be it known that I, SAMUEL ARTHUR PETO, of London, England, have invented new and useful Improvements in the Manufacture of Plumbago Crucibles and other Vessels in Plumbago suitable for chemical and metallurgical purposes, (for which I have obtained a patent in Great Britain, No. 1,672, bearing date April 23, 1880, and sealed July 9, 1880,) of which the following is a specification.

This invention relates to improvements on an invention for which Letters Patent were granted to me dated the 8th day of July, 1879, No. 217,295, the object of the present improvements being to simplify the method or process by which the crucible or other vessel in plumbago is rendered damp-proof.

In carrying out my present improvements the crucible may, before baking, be coated or covered with a suitable compound—such as is described in the specification of my said former Letters Patent; but such preliminary coating may generally be omitted. In either case I proceed as follows: Directly the crucible is drawn from the kiln—that is to say, while it is still warm, (the temperature being so low as to obviate the risk of combustion of the coating hereinafter mentioned)—I either dip it in or coat it with a compound or varnish, such as the following, consisting of about one part of pitch, three parts of rosin or analogous gum, and four parts of turpentine.

It will be understood that the compound is employed while in a liquid or heated state, and that in some cases the pitch may be omitted.

In practice I have found that it is expedient to apply a second coating of the hereinbefore-described varnish or of one in which five parts

of methylated spirit are substituted for the turpentine. Varnishes of an analogous character, when properly prepared, may be employed.

If, from the small size of the crucible, it should be found that the retained heat is not sufficient to thoroughly dry the hereinbefore-described coating, it will be necessary to again warm the crucible to complete the process.

When the coating is not applied directly the crucible is drawn from the kiln, or, in other words, if the crucible shall have been allowed to absorb moisture before applying the coating, it will be necessary to thoroughly reheat the crucible to a temperature above 212° Fahrenheit previous to treating it by the process hereinbefore described, so as to drive off all the absorbed moisture.

Having thus described my said invention and the best means with which I am acquainted for carrying the same into effect, I wish it to be understood that I do not confine myself to the precise details herein laid down, as the same may be varied without departing from the principle of my invention; but

What I do claim is—

The method herein described of rendering plumbago crucibles and other vessels of plumbago damp-proof and non-porous, consisting in giving the same, when hot, one or more coatings of pitch, rosin or analogous gum, and turpentine or methylated spirit, or of an analogue, as described.

S. ARTHUR PETO.

Witnesses:

G. F. REDFERN,
A. ALBUTT.