

UNITED STATES PATENT OFFICE.

LAWRENCE MYERS, OF PHILADELPHIA COUNTY, PENNSYLVANIA.

IMPROVEMENT IN THE METHOD OF CASTING STATUES.

Specification forming part of Letters Patent No. 2,420, dated January 8, 1842.

To all whom it may concern:

Be it known that I, LAWRENCE MYERS, of the county of Philadelphia and State of Pennsylvania, have invented a new and useful improvement in the art of making statues of iron and all other castings of fusible substances, however complicated the form, without joints in the mold or any opening therein whatever, except the usual ones for receiving the fluid metal and for the escape of the air, whereby the casting is free from the protuberances and unevenness of surface incident to the ordinary mode.

My invention consists in making a model or pattern of wax exactly corresponding with the object required to be cast, which I cover all over with a liquid blacking composed of one pint of pulverized charcoal, one gill of rye-flour, one gill of molasses, one gill of sour beer, which are to be well mixed together and then diluted with sufficient water to make it a rich liquid blacking, to be applied to the model or pattern several times, as the weight of the casting may require. While the blacking thus put on is moist I apply my facing-sand to the model or pattern, thereby causing the sand to adhere more firmly to the blacking. To the model or pattern I apply very small tubes, of a funnel shape, of tin or other metal, from one-eighth to one-half an inch in diameter at the small end, for the purpose of conveying away the melted wax from those parts of the model from which it would not otherwise escape, which I close up after the wax has been discharged. The model or pattern thus prepared is then

placed, as usual, in a flask large enough to embrace the whole, in which I put my sand and ram it hard around and close to the model or pattern until the whole thereof is incased. The flask, with the model or pattern, is then placed in an oven sufficiently heated to dry the mold entirely and melt the wax, by which operation the wax escapes through the main aperture aforementioned, and through tubes for that purpose from every part of the sand mold, which is left entire. After the wax is withdrawn, as before mentioned, the blacking adheres to every particular part of the sand mold, and presents a most perfect surface and faithful delineation of the figure or model, and produces a handsome smooth casting, far excelling any now in use.

Having since my invention of the wax model or pattern, as before described, been informed that a model or pattern of wax has been in use in foreign countries, I claim only as my invention and desire to secure at this time by Letters Patent—

The mode of preventing oxidation on the surface of the metallic casting and obtaining a finer and smoother surface and delineation of the figure by means of the aforesaid compound or any other substantially the same, applied to the wax model in the manner set forth.

LAWRENCE MYERS.

Witnesses:

JOHN THOMSON,
J. MITCHELL.