

UNITED STATES PATENT OFFICE.

ABRAM C. MOTT, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN IRON CORES FOR CASTINGS.

Specification forming part of Letters Patent No. 98,516, dated January 4, 1870.

To all whom it may concern:

Be it known that I, ABRAM C. MOTT, of the city of Philadelphia, in the State of Pennsylvania, have invented a certain Improvement in the Cast-Iron Patterns Used for Molding in Sand, of which the following is a specification.

My invention relates to the application of zinc to the surfaces of the cast-iron patterns used in foundries for molding in sand, in such a manner as to produce a more smooth and durable surface thereon. The cast-iron patterns now used in foundries are generally coated with beeswax, to give them the smooth surface required and to protect them from rapid oxidation; but in a short time the wax, being comparatively a soft substance in warm weather, soon becomes roughened or worn through to the iron, and scales off in cold weather, causing the sand to adhere, and rendering a recoating of the pattern absolutely necessary to produce therefrom proper castings. In facing or surfacing the iron pattern, after it has been properly dressed by filing, drilling, &c., in the usual manner, I cleanse it in acidulated water, and immerse and pass it

through a zinc bath, in the usual well-known manner practiced in what is called the process of "galvanizing" iron, and thus produce a uniform coat of zinc over the whole of the surfaces of the pattern. I now remove any extraneous lumps by means of a cold-chisel or coarse file, and then smooth evenly the whole surface by rubbing it with sand-paper, so as to leave a smooth, even, and uniform surface of zinc over the whole pattern. The "brushing and tapping" to which patterns are necessarily subjected in molding and "drawing" does not injure these zinc coated patterns in the least, and they will therefore last for years in constant use, while the original cost will be but a trifle more than the first waxing heretofore practiced.

I claim—

As an improved article of manufacture, a zinc-coated cast-iron pattern, substantially as and for the purpose hereinbefore set forth.

ABRAM C. MOTT.

Witnesses:

BENJ. MORRISON,
WM. H. MORRISON.