

UNITED STATES PATENT OFFICE.

ORANGE D. HUNTER, OF PLYMOUTH, CONNECTICUT.

IMPROVEMENT IN CORES FOR CASTING METALS.

Specification forming part of Letters Patent No. **142,790**, dated September 16, 1873; application filed July 19, 1873.

To all whom it may concern:

Be it known that I, ORANGE D. HUNTER, of Plymouth, Litchfield county, Connecticut, have invented a Machine for Making Cores for Metallic Castings, of which the following is a specification:

This invention relates to the making of cores for metallic castings where a smooth inside surface, square or other shaped hole is desired, as in the clock-key and similar articles. The object of my invention is to make a core that will not generate gas when the hot metal is poured into the mold, thereby saving the necessity of venting, and also producing perfectly-formed castings without blow-holes or roughness caused by vent-holes in the mold.

In carrying out my invention, I take common molding-sand and heat it to redness, or nearly so, (and by this operation the gaseous matter contained in it is expelled,) and after

becoming cold I add about one-fourth part of rosin, finely pulverized, flour, or other adhesive material, but preferably rosin; then thoroughly mix the parts together. It is then ready to form into cores of any desired shape, and when dried is ready for use.

I am aware that sand has been used before in its natural state, with rosin, flour, &c., as the adhesive material, for making cores; but in this way a large percentage of the castings are imperfect.

What I claim as my invention is—

The combination of burned sand with an adhesive substance, for the purpose herein described.

ORANGE D. HUNTER.

Witnesses:

MILES L. PECK,
HENRY A. SEYMOUR.