

W. E. CRAIG.

Making Patterns for Castings.

No. 169,151.

Patented Oct. 26, 1875.

Fig. 1

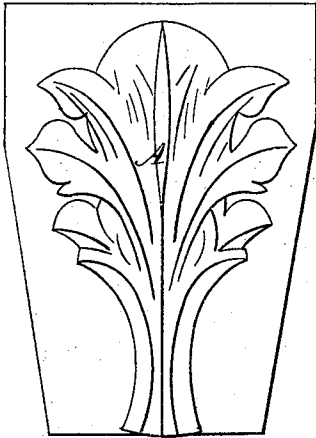


Fig. 2

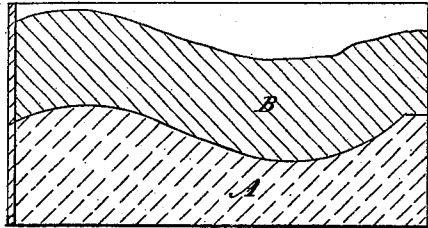


Fig. 3

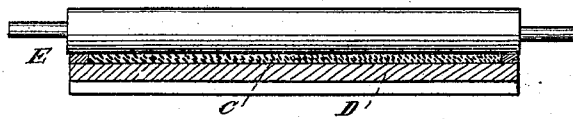


Fig. 6

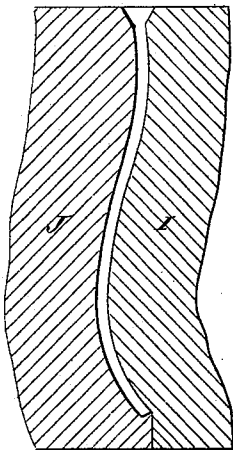


Fig. 4

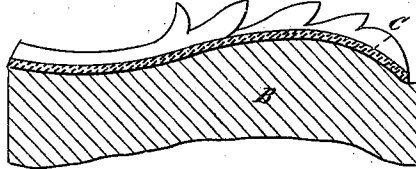


Fig. 5

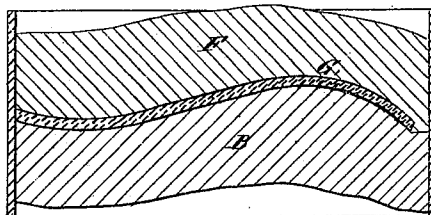


Fig. 7

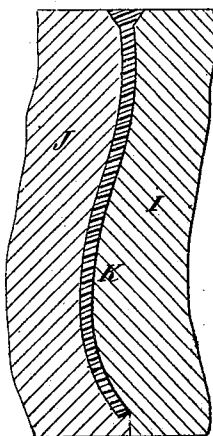
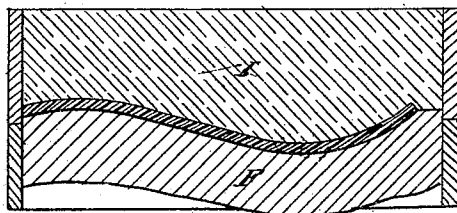


Fig. 8



WITNESSES:

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# UNITED STATES PATENT OFFICE.

WILLIAM E. CRAIG, OF INDIANAPOLIS, INDIANA.

## IMPROVEMENT IN MAKING PATTERNS FOR CASTINGS.

Specification forming part of Letters Patent No. **169,151**, dated October 26, 1875; application filed August 28, 1875.

*To all whom it may concern:*

Be it known that I, WILLIAM E. CRAIG, of Indianapolis, in the county of Marion and State of Indiana, have invented a new and Improved Process of Forming the Patterns for Ornamental Castings, of which the following is a specification:

My invention consists of a new method of making elaborate patterns for ornamental iron-work, such as architectural work, flower-vases, fountains, or any intricate-shaped pattern for light, thin castings.

The object is to make such patterns cheaper than they can be carved in wood.

In the drawing, Figure 1 is an elevation of a pattern, which I first make in clay, of the object I wish to produce. Figs. 2 to 8, inclusive, are sections of molds, illustrating the different steps of my improved method.

Similar letters of reference indicate corresponding parts.

In the first place I model up the desired form A in ground potters' clay, and, when set, take a plaster cast, B, from it; then roll a sheet, C, of clay on a gage-board, D, having ribs E, the thickness of the casting I wish to produce, which sheet I lay on the plaster cast B, and gently press it into the cast by hand all round, as represented in Fig. 4, and then cast upon it a back mold, F, of plaster, making a complete mold, in which, after suitably cleaning and soaking in water, I cast a pat-

tern, G, of the following composition, viz: Bees-wax, red lead, and rosin, in about the proportions of three pounds wax, one pound lead, and a half-pound of rosin, melted over a slow fire. This pattern of composition I trim with a penknife, and put back on the back mold F, using it as a follow-board, and make thereon the said mold I, after which I make a sand mold, J, in the place of back mold F, and in these sand molds cast the metal article K which I wish to produce.

By this plan considerable economy of labor is effected, as a workman can model up in clay more in one day than a carver can do in a week.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

The method of making elaborate ornamental castings by first modeling the form of the article to be produced in clay, as at A, taking a plaster mold, B, therefrom, applying to said mold a thin sheet of clay, C, forming thereon the back mold F, casting the composition pattern G in said plaster molds, and forming said molds I J from the composition pattern and plaster molds, all substantially as herein described.

WILLIAM E. CRAIG.

Witnesses:

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N. B. MOODY.