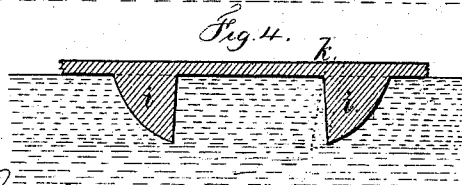
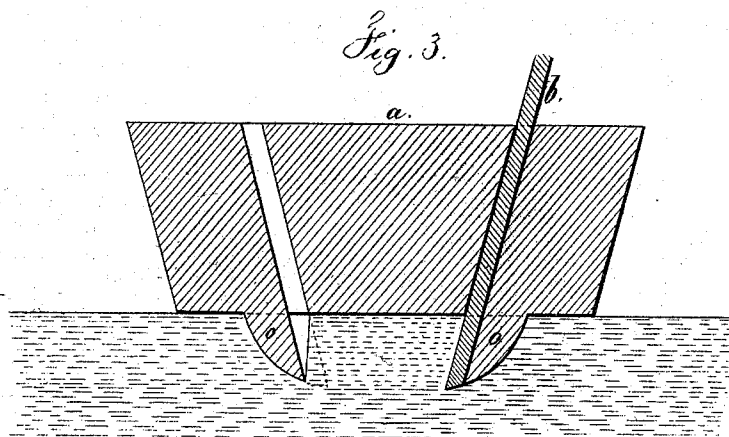
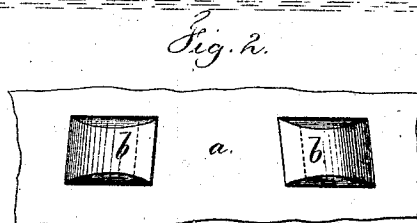
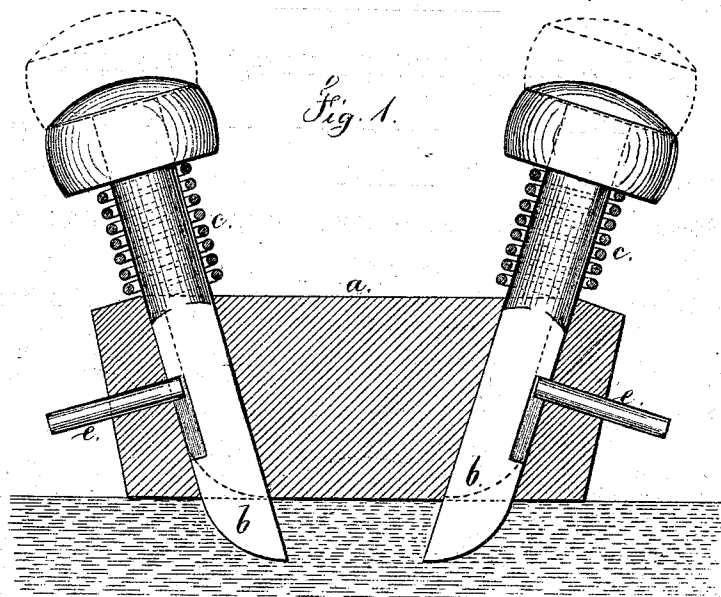


AMON L. FINCH.
Improvement in Devices for Molding Dovetails.
No. 125,186. Patented April 2, 1872.



Witnesses,
Charles Smith
Geo. C. Finckney

Amon L. Finch
Lemuel W. Terrell atty.

UNITED STATES PATENT OFFICE.

AMON L. FINCH, OF SING SING, NEW YORK.

IMPROVEMENT IN DEVICES FOR MOLDING DOVETAILS.

Specification forming part of Letters Patent No. 125,186, dated April 2, 1872.

To all whom it may concern:

Be it known that I, AMON L. FINCH, of Sing Sing, in the county of Westchester and State of New York, have invented an Improvement in Molding Dovetails; and the following is declared to be a correct description of the same.

This invention is for molding dovetails in the sand, so as to cast the dovetailed lugs employed for holding stove-legs to the bottom plate of stoves, and similar articles.

Prints have been made in the sand to form dovetails by means of lugs made to move toward each other; but in this case the sand remaining between the lugs is compressed and liable to be displaced, and the distance between one lug and the other will vary in consequence of the movement given to the lugs not being positive.

My invention is made to remedy these difficulties; and consists in a head with a print or punch sliding at an inclination and in line with the face of the dovetail; thereby the distance between the faces of the dovetail will be uniform, and the sand will be driven downwardly away from the surface of the mold; thereby that surface will not be injured or the sand loosened between the dovetail lugs.

In the drawing, Figure 1 is a section of the head and dovetail-prints, and Fig. 2 is an inverted plan of the same. Fig. 3 is a section of the head with the sliding punch for completing the dovetail, and Fig. 4 shows the lugs upon the pattern that partially form the dovetail cavities ready for the reception of the head shown in Fig. 3.

The head *a* has openings through it at an inclination for the reception of the punch or print *b*, which slides upon the line of the face of the dovetail. In Figs. 1 and 2 the sliding portion *b* is a complete print, the end thereof being of the size and shape required for the

dovetail lug. The head *a* has two of these prints, *b*, which, in a normal condition, are held by the springs *c* in the position shown in Fig. 1 by dotted lines, the ends of the prints being within the head, so that the under face thereof can be laid upon the sand mold in the proper position and the prints be driven down into the sand by pressure, the distance being determined by the pins *e* or otherwise. The springs *c* draw up the prints so that the head *a* and parts may be lifted off. In this manner very perfect dovetails are molded, and with great rapidity. In cases where the dovetail is larger, or it is desired to have lugs upon the pattern to determine where the dovetail mechanism shall be applied to complete the mold, the lugs *i* are made upon the pattern *k*, and these lift out of the sand freely, leaving cavities, into which the guide-blocks *o o* of the head *a* are placed, and then the punch *b* is pushed down through the mortises in *a*, as seen in Fig. 3, and gives shape to the face of the dovetail cavity. This punch *b* is applied to first one side and then the other, and a stop upon the surface of the print or punch *b*, or at the edges thereof, determines the point to which it is to be impressed to perfect the dovetail mold.

I claim as my invention—

1. The guide-blocks *o o* of the head *a*, adjacent to the mortises through said head *a*, for the punch *b*, which forms the inclined faces of the dovetail, as specified.

2. The head *a*, with diagonal mortises through it, in combination with the two inclined punches *b*, and springs *c* for withdrawing the punches from the sand, as set forth.

Signed by me this 5th day of December, A. D. 1871.

Witnesses:

A. L. FINCH.

GEO. T. PINCKNEY,
CHAS. H. SMITH.