

(No Model.)

F. W. HECKEL, Jr. & Z. SHADE.

PATTERN FOR MOLDING STOVE COVERS.

No. 344,377.

Patented June 29, 1886.

Fig. 1.

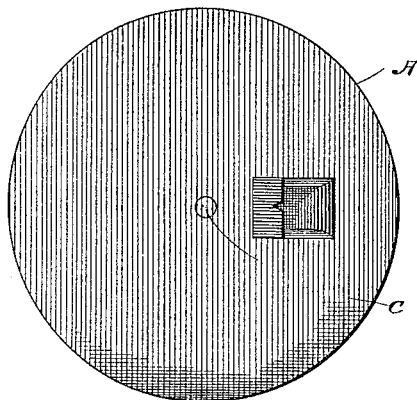


Fig. 2.

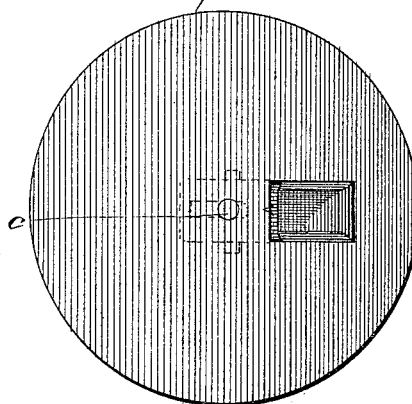


Fig. 4.

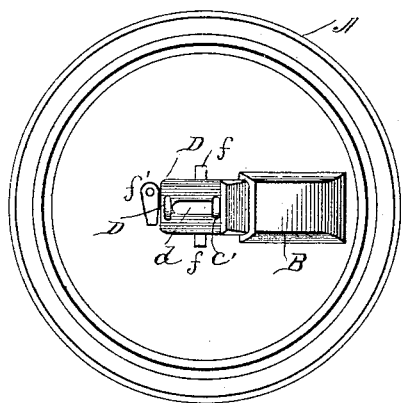


Fig. 3.

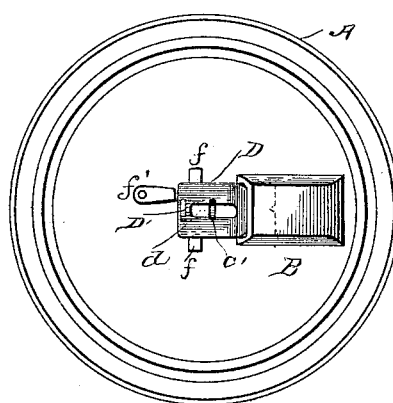


Fig. 6.

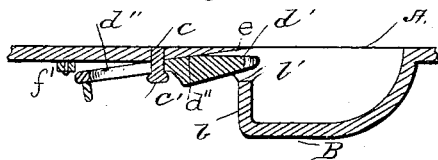
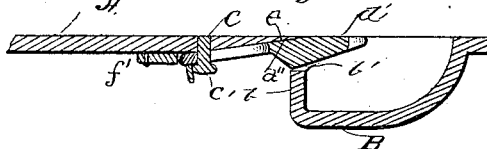


Fig. 5.



Witnesses
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UNITED STATES PATENT OFFICE.

FREDERICK W. HECKEL, JR., AND ZEPHANIAH SHADE, OF COLUMBIA, PA.

PATTERN FOR MOLDING STOVE-COVERS.

SPECIFICATION forming part of Letters Patent No. 344,377, dated June 29, 1886.

Application filed April 7, 1886. Serial No. 198,130. (No model.)

To all whom it may concern:

Be it known that we, FREDERICK W. HECKEL, Jr., and ZEPHANIAH SHADE, both of Columbia, Pennsylvania, have invented certain new and useful Improvements in Patterns for Casting Stove-Covers, &c., of which the following is a specification, reference being had to the accompanying drawings, forming part hereof.

Our invention relates to the casting of stove-covers, centers, or any castings which require a pocket for a lifter, and has for its object to furnish an improved construction of pattern for these articles which shall be more simple in construction, reliable in use, and cheaper to construct than any with which we are acquainted.

With this object in view our invention consists in the improved construction, arrangement, and combination of parts which we shall now proceed to fully describe, the specific points of novelty in which we shall particularly point out in the claims hereto appended.

In the drawings, Figure 1 is a top plan view of a pattern constructed in accordance with our invention, the sliding plate being shown in position in which it is when placed in the sand. Fig. 2 is a similar view, the sliding-plate being shown in dotted lines in the position to which it is drawn in order to withdraw it from the sand. Fig. 3 is a bottom plan view of the pattern, the parts being in the same position as in Fig. 1. Fig. 4 is a similar view, the parts being in the same position as in Fig. 2. Fig. 5 is a cross-sectional view on the line *xx* in Figs. 1 and 3, and Fig. 6 is a similar view on the lines *yy* in Figs. 2 and 4.

Like letters of reference mark the same parts in all the figures.

Referring to the drawings by letters of reference, A is the main body of the pattern, of the size and shape of the plate to be cast.

As is well known, stove covers, centers, &c., are generally cast with a depression or pocket to receive the point of the lifter, and an overhanging lip at the rear of this pocket to engage the point of the lifter in raising the plate from the stove. Various endeavors have been made to overcome the difficulties encountered in casting such plates, due to the impossibility of withdrawing a pattern made in such a shape from the sand when made in a single

piece. In these endeavors patterns have been made with movable parts; and our object is to furnish an improved pattern consisting of movable parts, as hereinafter described.

The main body, A, of the pattern is provided with a depressed portion, B, shaped to correspond with and form the depression in which the pocket in the plate is cast. In the rear side, *b*, of this depression B is formed a slot, *b'*, the top and bottom walls of which are inclined downward toward the center of the plate. At just about the point where this incline reaches the level of the bottom of the pattern a rivet, *c*, passes through the body of the pattern. Its upper end is made smooth and flush with the top of the pattern, while its lower end passes through a slot, *d*, in a slide-plate, D, and is then upset or headed at *c'*, so as to hold the slide-plate against the body of the pattern. On each side of the slide D is a guide, *f*, formed on the body of the pattern, which assures the movement of the slide (or "tool," as it is technically termed) in true lines, preventing any lateral displacement, and in the rear of the tool a stop, *f*, is pivoted to the plate, which, when in the position shown in Figs. 3 and 5, prevents an accidental backward movement of the sliding tool, while, when turned, as shown in Figs. 4 and 6, allows it to be withdrawn.

The slide-plate D, the front part of which is wedge-shaped, is of a width equal to the length of the slot *b'*—that is to say, equal to the width of the interior of the depressed portion B of the pattern. It is provided with downward projecting flange D' at its rear end, to facilitate handling, and its upper surface is formed of two parts, *d'* and *d''*, the latter of which lies snug against the upper inclined wall of the slot B, while the former lies parallel with the top surface of the pattern, so that the cover, center, or other casting will show, when finished, the lip of the pocket flush with the general surface.

The operation of our invention may be described as follows: The drag is placed on the follow-board with the face or pocket side of the cover up, with the slide or tool extending to its fullest capacity over the pocket. The drag is then filled with sand and rammed, which will also fill the pocket. The drag is then turned over, exposing the back of the pat-

tern. The cope is placed over the drag in its proper position, (leaving the proper gates or sprue-holes,) rammed, and then lifted off the drag, again exposing the back of the pattern. 5 The slide or tool is now withdrawn to the position shown in Figs. 2, 4, and 6, leaving the pattern free to be drawn in a vertical line, which is done, leaving the core formed in the depression B on the cope. The drag is now 10 adjusted to position on the cope and the metal poured into the mold, as usual.

What we claim, and desire to secure by Letters Patent of the United States, is—

1. A pattern-plate for stove-covers, &c., 15 consisting of the main plate having the depression to form the lifter-sink, and the wedge-shaped sliding block having the front portion of its top surface parallel with the top of the main plate, and mounted to slide in the inclined slot in the rear wall of the depression, as set forth. 20

2. The plate A, having depression B, with inclined walls, the slot *b'* being formed in the rear wall, *b*, with inclined upper surface, *e*, in 25 combination with the slotted wedge-shaped

tool D, fitting and sliding in said slot, the portion *d'* of said wedge being parallel with the face of the pattern, the portion *d''* with the top wall, *e*, of the slot, the rivet *c*, entering the slot *d*, and the handle *D'* on said wedge, 30 as set forth.

3. In combination, the pattern having depression B, with slot *b'*, the wedge-shaped tool D, sliding thereon, and the stop *f'* pivoted to the plate in the rear of said stop, as set forth. 35

4. In combination, the plate A, having depression B, with slot *b'*, the slotted wedge-shaped tool D, sliding therein, and having handle *D'*, the rivet *c*, the side guides, *f*, and the stop *f'*, pivoted to the pattern in the rear 40 of the tool D, as and for the purpose set forth.

In testimony whereof we have hereto appended our signatures in the presence of two subscribing witnesses.

FREDERICK W. HECKEL, JR.
ZEPHANIAH SHADE.

Witnesses:

GEORGE TILLE,
ED. SHORNIER.