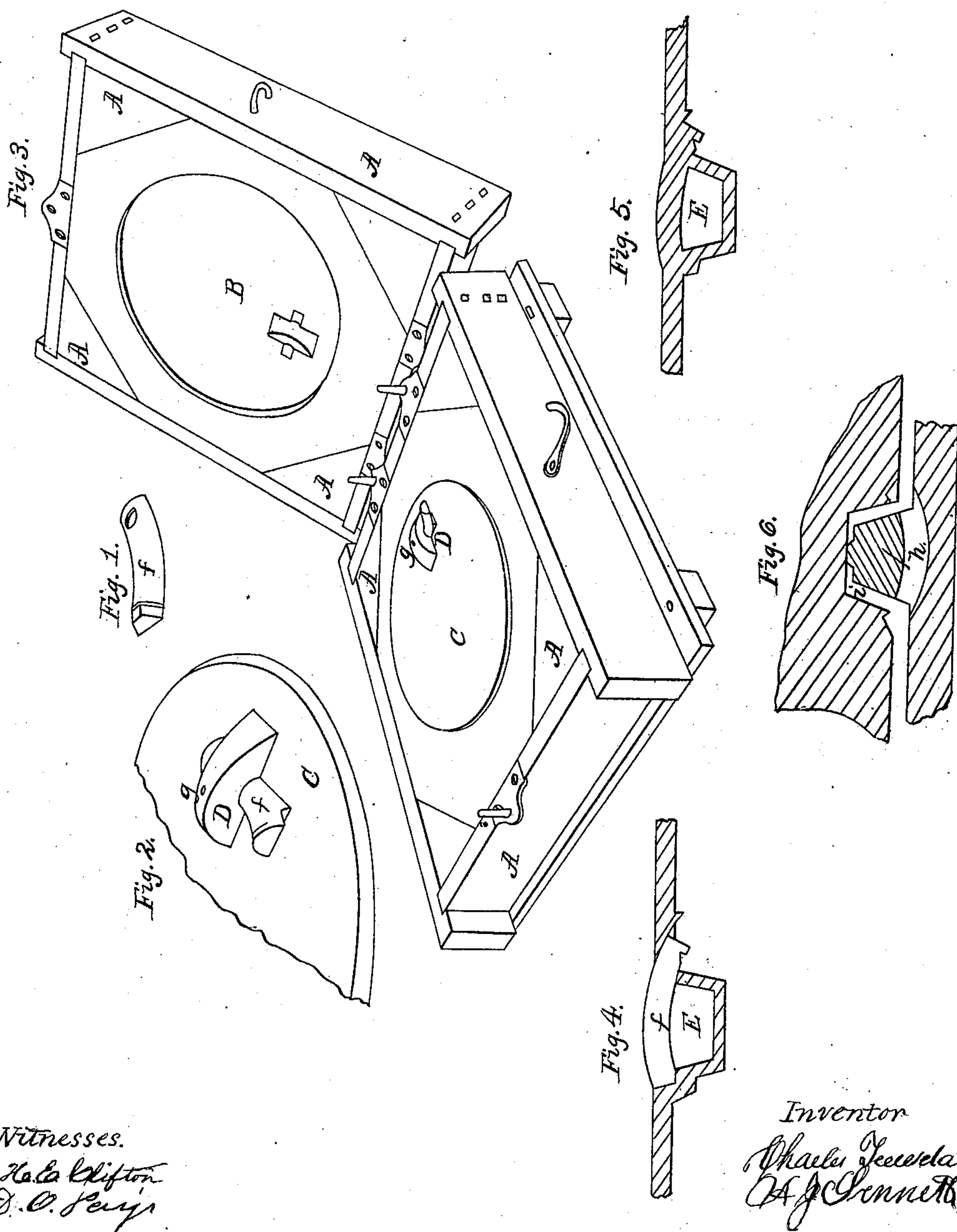


Tevesdale & Sennett,
Pattern for Store Covers.
No 24, 527. Patented June 21, 1859.



Witnesses.
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CHARLES TRUESDALE AND A. J. SENNETT, OF CINCINNATI, OHIO, ASSIGNORS
TO WILLIAM & JACOB RESOR, OF SAME PLACE.

IMPROVEMENT IN PATTERNS FOR CASTING STOVE-COVERS.

Specification forming part of Letters Patent No. 24,527, dated June 21, 1859.

To all whom it may concern:

Be it known that we, CHARLES TRUESDALE and A. J. SENNETT, of Cincinnati, in the county of Hamilton and State of Ohio, have invented a new and useful Improvement in Patterns for Casting Stove Covers and Centers; and we do hereby declare that the following is a full and clear description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, and made to form a part of this specification.

The nature of our invention relates to the construction of patterns to be used in the preparation of molds for the casting of stove covers and centers, by means of which we are enabled to cast the lift-bars of said stove covers and centers solid and in one piece of metal with the said covers and centers without danger of destroying or damaging the molds in which said covers and centers are cast in removing the patterns from the sand, and also to prevent the destruction of the castings by pressure and confinement of gases within the mold as they are being filled with the molten iron, as hereinafter specified and represented.

Many attempts have been made to cast the bars of stove covers, centers, &c., solid with said covers and centers; but all have failed and been abandoned, and chiefly from two causes, namely: first, it has been necessary in the formation of the cavity in the mold in which said bars have been cast to remove the draw-bar from the sand after the plate of the pattern had been drawn from the sand, and great difficulty has been found in removing said draw-bar without destroying or injuring the mold; second, in filling the mold that part of it in which is formed the recess under the bar of the cover is the last to be filled, and the gases collecting there, having no avenue of escape, remain to injure or destroy the casting by what is termed "blowing."

By means of our invention we are enabled to obviate the above-named difficulties and to cast with certainty and facility the said bars solid with said covers and centers, so as to be as strong and durable as any part of the covers or centers, and to produce fine smooth castings.

In reference to the accompanying drawings, Figure 1 is a perspective view of the draw-bar of the pattern. Fig. 2 is a perspective

view showing a section of the pattern of a stove-cover, with the draw-bar partially removed. Fig. 3 is a perspective view of a flask used in casting stove-covers, showing also the manner of preparing the molds for said casting. Fig. 4 is a sectional view of the pattern, showing the draw-bar fully inserted, as when preparing the molds. Fig. 5 is a sectional view of a stove-cover cast in accordance with our invention, showing the bar as forming a part of the solid casting. Fig. 6 is a sectional view of molds, showing the support afforded to the core and device for permitting the gases to escape.

A represents a flask similar to those in ordinary use for like purposes.

B represents the mold for the bottom of the cover, the cope being raised from the drag in order to show the position of the pattern and the manner of drawing it from the sand.

C is a pattern for a stove-cover, formed with an elliptical elevation, D, by means of which the molds may be prepared in such manner that a recess, E, may be left in the casting of the cover, as clearly shown in Fig. 5.

Upon the under side of the pattern C, partly in its plane and partly in its elevation D, is an opening into which the draw-bar *f* is made to fit, as clearly shown in Figs. 2 and 4; and upon the upper side of said pattern, in its plane, is a recess made to receive the inserted end of the draw-bar *f*, as shown clearly in Fig. 4, so that said bar, when properly inserted for use, presents a smooth surface with the plane of the upper side of the pattern C, and at the same time the draw-bar *f* may be withdrawn from the mold from the under side of the pattern C, as shown clearly in Fig. 3, before said pattern is drawn from the sand, by means of which support may be afforded to the sand within the recess of the elevation D while the draw-bar is being removed, thus preventing the molds from injury by said removal of the bar *f*, and thereby securing always a perfect mold for the casting of the cover.

In the elevation D of the pattern C is a perforation, *g*, by means of which the conical elevation *i* is formed upon the sand-core *h*. (Clearly shown at Fig. 6.) This elevation *i* of sand serves to hold the core *h* down during the operation of casting, and also to permit the escape of gases, which are formed and collect

during the process of filling the molds, and thereby insuring perfect castings.

We do not claim stove covers or centers having cast bars by means of which they may be removed from said stoves, or casting said bars solid with said covers; but,

Having fully described our invention and the manner of using the same, what we claim as new, and desire to secure by Letters Patent, is—

Constructing patterns for stove covers and centers with an opening in their under sides,

by means of which a draw-bar, *f*, may be withdrawn from the mold before removing the pattern, and also with a perforation, *g*, substantially as and for the purposes set forth.

In testimony of which invention we have hereunto set our hands.

CHAS. TRUESDALE.

A. J. SENNETT.

Witnesses:

D. O. PAIGE,

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