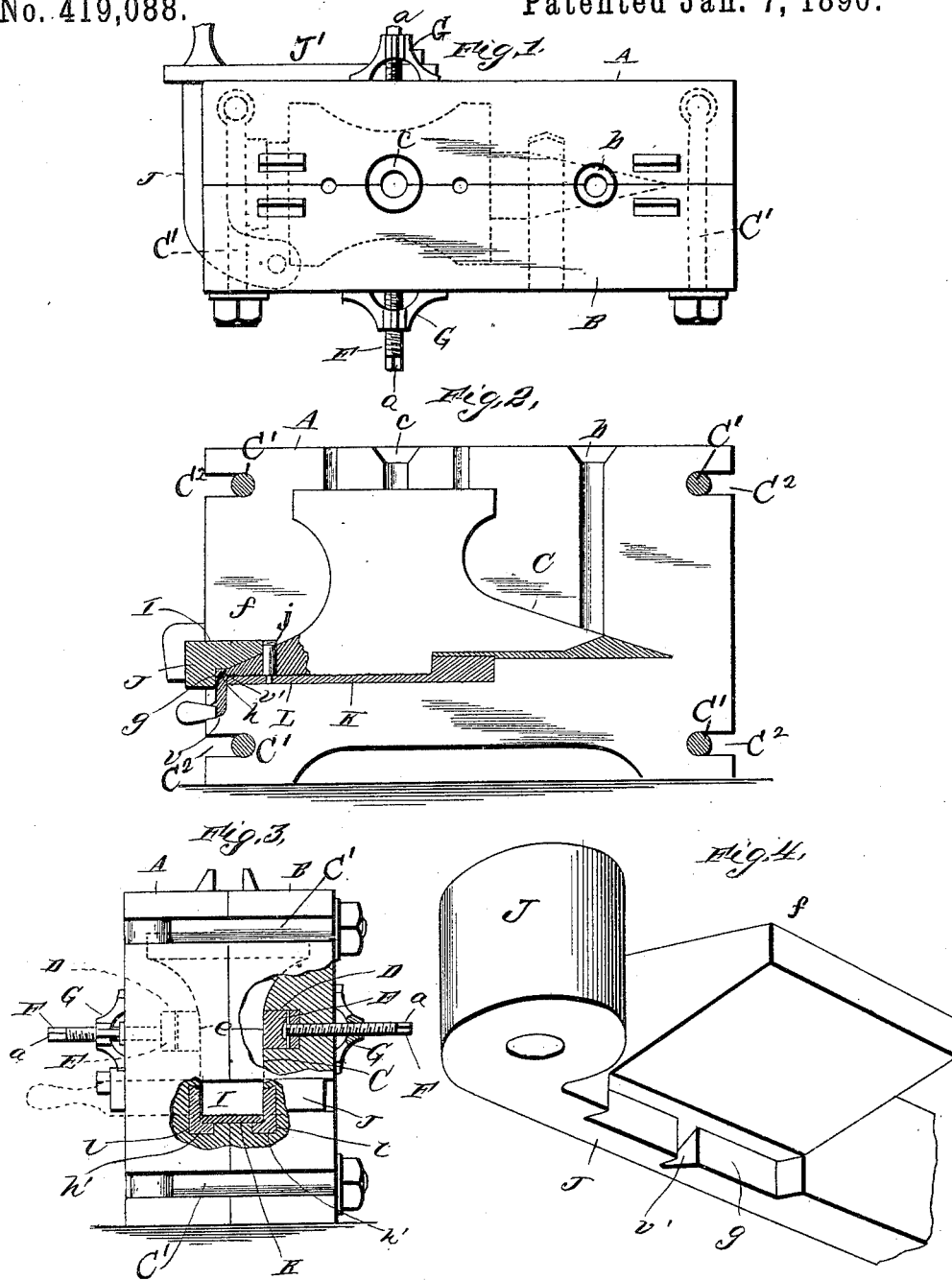


(No Model.)

T. W VARE.
ANVIL MOLD.

No. 419,088.

Patented Jan. 7, 1890.



Witnesses

Chas. Taylor
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Inventor

Thomas W. Vare,

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UNITED STATES PATENT OFFICE.

THOMAS W. VARE, OF TRENTON, NEW JERSEY.

ANVIL-MOLD.

SPECIFICATION forming part of Letters Patent No. 419,088, dated January 7, 1890.

Application filed September 30, 1889. Serial No. 325,558. (No model.)

To all whom it may concern:

Be it known that I, THOMAS W. VARE, a citizen of the United States, and a resident of Trenton, in the county of Mercer and State of New Jersey, have invented certain new and useful Improvements in Anvil-Molds; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a representation of a top view illustrating this invention. Fig. 2 is a side view of the interior face of one of the lateral sections, showing the anvil. Fig. 3 is an end view partially in section, and Fig. 4 is a detail in perspective.

This invention has relation to improvements upon the anvil-mold for which Letters Patent No. 402,368 were granted to me April 30, 1889; and it consists in the novel construction and combination of parts, all as hereinafter set forth, and pointed out in the appended claims.

In the accompanying drawings, the letters A B designate the two lateral sections of the mold, which are preferably made of cast-iron, each section being recessed in its inner wall to provide one-half the matrix, as indicated at C. The sections A B are removably held together by means of bolts C' C', pivoted at their inner ends in the section A and let into grooves or recesses C² C² in the two sections transversely of their lengths, as shown in Figs. 1, 2, and 3.

D D are offset recesses extending laterally from the matrix-recesses at the sides and middle portion thereof into the walls of the mold-sections, as shown, and these offset recesses are designed to receive the slide-blocks E E, which are provided with the threaded turning-stems or operating-screws F F, which engage the exterior threaded bearings G G. Each screw-stem is provided with a wrench-seat *a* at its end, whereby it may be turned to cause the slide E to protrude into the matrix-cavity from the offset recess or to be

withdrawn into the latter. When so withdrawn, its end *e* is flush with the lateral wall of said matrix-recess. By means of these slides I am enabled, should the cast anvil hang in either mold-section, to start it therefrom and easily release it by turning the screw of the slide-block of that section to cause said block to move inward.

As described in the specification of my Letters Patent referred to, the anvil is designed to be cast base upward in the mold, and *b* and *c* indicate the pouring-gates.

An opening I is made by means of horizontal squared notches or recesses in the rear of the mold-sections for the introduction of the face-plate piece K into the matrix. This opening is made, preferably, in the rear of the mold, and its floor is level with the floor L of the matrix. The closing-gate J for the opening extends transversely across the rear of the mold-sections, and is held in place by a bar J', connected to one side of the mold-section A and engaging a projecting end of the gate J.

j is a core at the inner edge of the gate J. It is provided with an upwardly-projecting flange *f*, beveled on its under side to form the under bevel of the rear of the anvil. Below this bevel-flange is provided a transverse recess, as at *g*, to receive a fender-piece of sand or clay composition, (indicated at *h*), and designed to prevent the casting from being chilled in the corners by the iron of the mold. In order to allow a small portion of the iron which first passes into the mold, which is usually of inferior nature, to escape, the mold is provided with a waste-aperture at *v* below the gate, which is notched at *v'*. The clay binder is also notched to allow the metal to pass out. After a sufficient quantity has escaped a clay plug is used to stop the opening.

At the lower corner portions of the matrix, extending the length of the same, offset channels *l* are made in the mold-sections, said channels being preferably angular in form and extending a short distance from the bottom of the matrix up the sides thereof and a short distance inward along the bottom from each side, as shown. These recesses or seats are designed to receive the longitudinal clay fender-pieces *h'*, to prevent chilling at the

edges of the joining of the casting to the face-plate piece K by the cold metal of the mold. The steel face-plate piece K, as well as the horn-plate; is placed in the bottom of the matrix before the cast-iron is poured into the mold, and it is designed by this mold to effect an intimate joining of the steel plates to the cast-iron body. To this end the face-plate is ground bright and clean to remove all the black, which would interfere with the welding side, to provide thin projections of the steel, which, when the iron is poured into the mold, are easily softened or melted to form a speedy and intimate union with the cast-iron. In this manner the main portion of the welding is made very solid, and in order to prevent chilling at the edges of the welding the clay fenders are provided in the angles of the mold.

Having described this invention, what I claim, and desire to secure by Letters Patent, is—

1. A sectional metallic anvil-mold having

steel face-pieces in the matrix and clay fillings in offset recesses at the angles of the vertical walls of the matrix with the floor to prevent chilling in welding.

2. In a sectional metallic anvil-mold, the combination, with the mold-sections, the jagged steel face-piece, the matrix, and the recesses in the walls at the angles of the matrix, of the clay fillings in said recesses, substantially as specified.

3. In a sectional metallic anvil-mold, the waste-opening to allow the escape of the first portion of the melted metal, in combination with the notched gate, substantially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

THOMAS W. VARE.

Witnesses:

THOMAS E. LONGTON,
WM. T. STREET.