

(No Model.)

J. M. DAVIES.
MOLD FOR CASTING SAD IRONS.

No. 430,337.

Patented June 17, 1890.

Fig 1

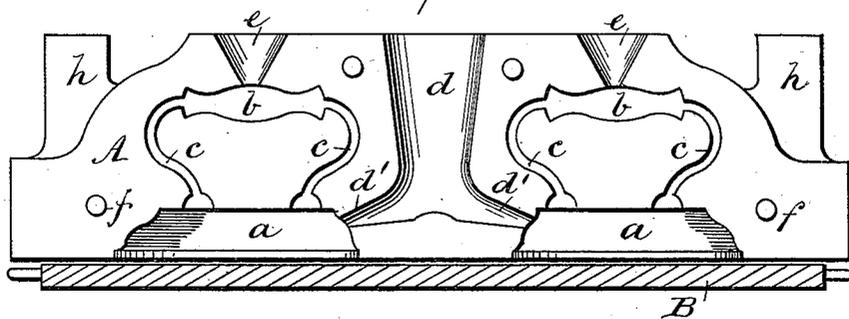


Fig 2

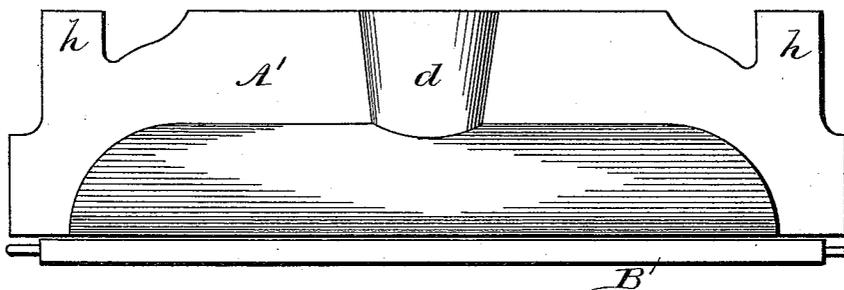
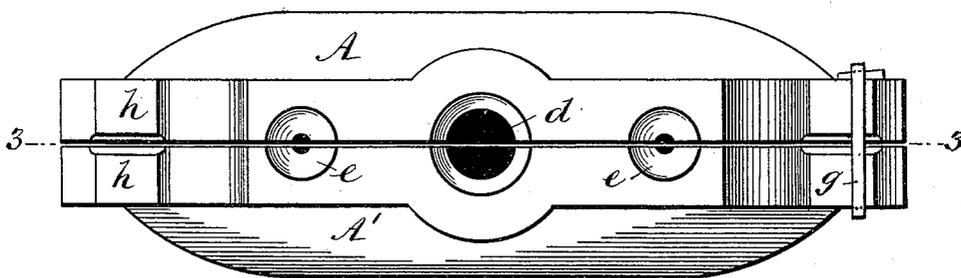


Fig 3



WITNESSES:
H. Walker
C. Sedgwick

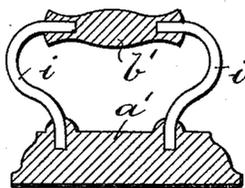


Fig 4

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UNITED STATES PATENT OFFICE.

JACOB M. DAVIES, OF NEW CASTLE, PENNSYLVANIA.

MOLD FOR CASTING SAD-IRONS.

SPECIFICATION forming part of Letters Patent No. 430,337, dated June 17, 1890.

Application filed October 17, 1889. Serial No. 327,278. (No model.)

To all whom it may concern:

Be it known that I, JACOB M. DAVIES, of New Castle, in the county of Lawrence and State of Pennsylvania, have invented a new and useful Improvement in Molds for Casting Sad-Irons, of which the following is a full, clear, and exact description.

The object of my invention is to provide a separable metal mold for casting sad-irons in pairs and to dispense with the use of sand-molding, whereby the work may be speedily performed by unskilled labor at a great reduction of expense.

To this end my invention consists in the construction and combinations of parts, as hereinafter described, and indicated in the claim.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the views.

Figure 1 is a longitudinal sectional elevation of the mold taken on the median line 3 3 in Fig. 3. Fig. 2 is a side elevation in perspective of the mold. Fig. 3 is a top plan view of the complete device, and Fig. 4 is a longitudinal elevation in section of a sad-iron such as is produced in the mold.

A A' are two equal sections of the mold. These are duplicates in all respects and have the exact shape of half a sad-iron formed in each piece, which, when joined, produce a facsimile of the body of the sad-iron recessed therein, the lower face of the mold being open. These hollow imprints are represented at *a a* in Fig. 1.

Duplicate impressions *b b* are sunken in each half of the mold of proper shape, which are adapted to register with each other and form molds for the handles of the two sad-irons that are cast at one pouring of iron into the mold.

Four grooves *c c c c* are formed of appropriate shape. These extend from the handle-imprints to the sad-iron hollow fac-similes, and in these are placed properly-bent wrought-iron pieces *i*, that have their ends extended into the spaces mentioned, and thus are cast fast into the iron body *a'*, and handles *b'*, when the mold is filled with molten metal. Said handle-pieces are shown in position connected to a sad-iron in Fig. 4.

To align the two sections of the mold exactly so that there will not be improper shoulders formed on the castings, the dowel-pins *ff* are secured in one section and aligning perforations are made in the mating section. These, when engaged and the mold-sections tightly clamped together, will afford a pair of molds that will produce clean and perfect sad-irons.

A central main-gate orifice *d* is formed in the duplicate sections A A' between the sad-iron imprints, and lateral runners *d'* are branched therefrom at its base. These branching channels for the flow of molten metal into the molds *a a* intersect the cavities of the molds at their heels, which are adjacent, and at points sufficiently above the face of the irons that the edges will remain perfect when the gates are broken off. The faces of the sections A A' are planed off to render their jointing together true, and the lower surface of each is finished in like manner at right angles to the joint-faces mentioned, so that the complete mold will rest truly upon a base-plate B, which is of metal, also planed true and adapted to chill the face of the irons when they are cast.

At *e* smaller gate-orifices are formed for the introduction of metal to form the handles *b' b'*. The two sections of the mold are clamped together by any preferred means, and to facilitate the quick adjustment of the ordinary molders' clamps, which are simple and efficient, the vertically-projecting ears *h* are formed integral with each mold-section at their ends, and the projecting parallel limbs of the clamps can be made to embrace these lugs and be wedged fast thereto, as shown in Fig. 3 at *g*.

By the use of this metal mold several important advantages are derived. In ordinary molding and casting, sand is employed, molded in flasks. This work is one requiring skilled and high-priced labor, which is avoided by the use of this improvement. The work is rendered more speedy, smoother castings are afforded, and the percentage of loss from imperfect pieces is reduced.

The form of the mold renders it non-liable to injury from its expansion and contraction in use.

Having thus fully described my invention,

I claim as new and desire to secure by Letters Patent—

In a sad-iron mold, the combination, with
two mating duplicate sections which are joined
5 longitudinally on a median line and each im-
printed with fac-similes of the halves of two
sad-irons, the heels of which are adjacent,
and further provided with shaped depres-
sions at proper points for the formation of
10. cast sad-iron handles, also grooves to retain in

place wrought-iron uprights for the handles,
and a main-gate orifice having two runner
branches which intersect the body-molds of
the two sad-irons above their faces, and two
smaller handle-gate orifices, of a chilling base- 15
plate faced off true, substantially as set forth.

JACOB M. DAVIES.

Witnesses:

JOHN S. TAGGART,
J. F. WILLIAMS.