

**No. 666,114.**

Patented Jan. 15, 1901.

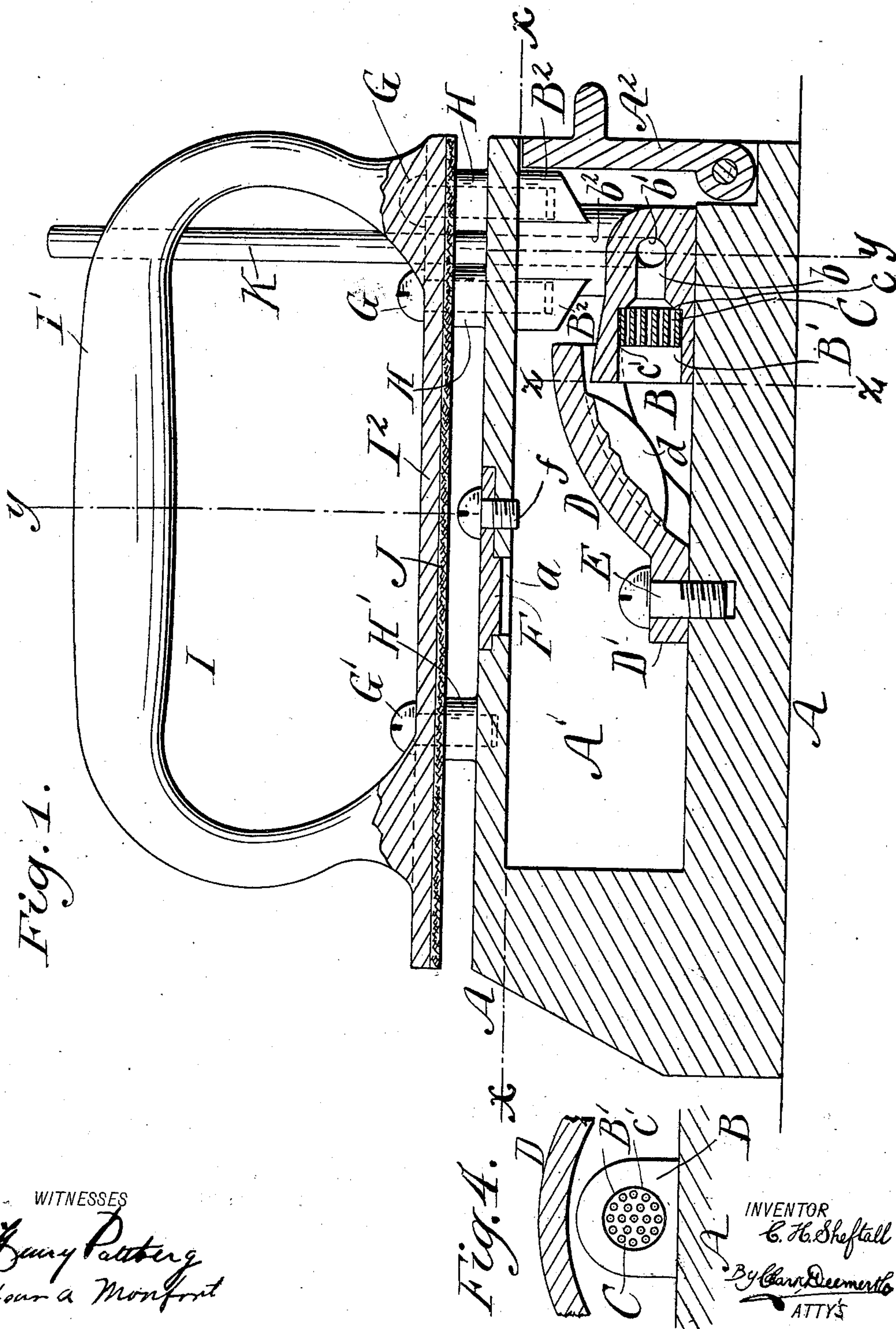
**C. H. SHEFTALL.**

**SAD IRON.**

(Application filed July 7, 1900.)

(No Model.)

**2 Sheets—Sheet 1.**



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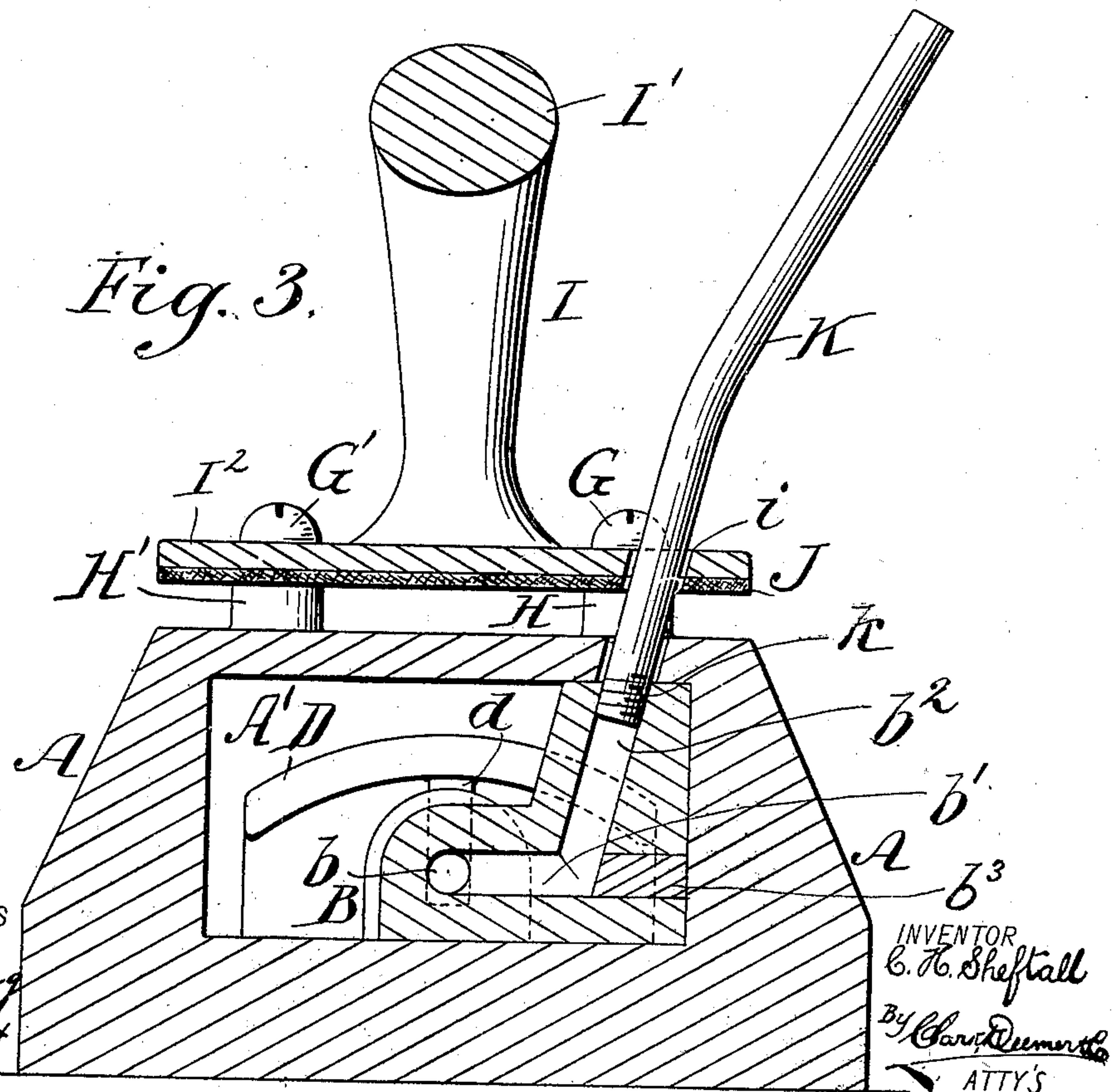
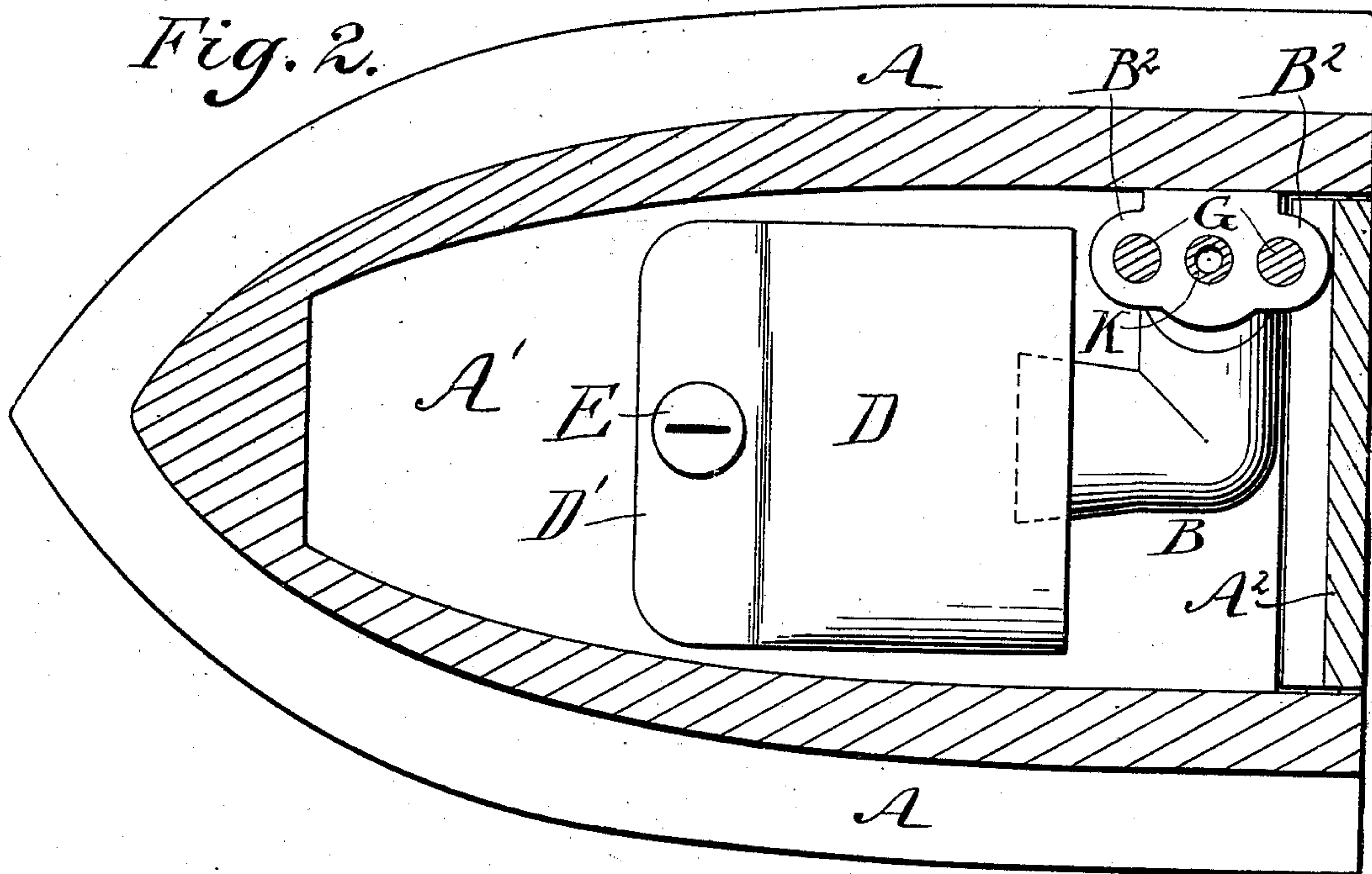
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SAD IRON.

(Application filed July 7, 1900.)

(No Model.)

2 Sheets—Sheet 2.



WITNESSES  
*Henry Pellberg*  
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INVENTOR  
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By *Charles Demerits*  
ATTY'S



# UNITED STATES PATENT OFFICE.

CHARLES H. SHEFTALL, OF NEW YORK, N. Y., ASSIGNOR OF ONE-HALF TO  
MAX HILBORN, OF SAME PLACE.

## SAD-IRON.

SPECIFICATION forming part of Letters Patent No. 666,114, dated January 15, 1901.

Application filed July 7, 1900. Serial No. 22,796. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES H. SHEFTALL, a citizen of the United States, and a resident of New York, county of New York, and State of New York, have invented certain new and useful Improvements in Sad-Irons, of which the following is a specification, reference being had to the accompanying drawings, forming a part thereof, in which similar letters of reference indicate corresponding parts.

This invention relates to improvements in sad-irons of the class adapted to be heated by a blast comprising a mixture of gas and air which is continuously applied interiorly of the iron while the same is being used; and the object thereof is to provide a device of this character which comprises novel features of utility, durability, and general effectiveness, embodying especially novel means for supplying and uniformly distributing the heating agent, whereby an even degree of heat is maintained throughout the entire area of the smoothing-surface of the iron.

The invention will be hereinafter fully described, and specifically set forth in the annexed claim.

In the accompanying drawings, forming part of this specification, Figure 1 is a longitudinal sectional elevation of my improved iron. Fig. 2 is a sectional plan view taken on a line  $xx$  of Fig. 1. Fig. 3 is a vertical sectional elevation taken on a line  $yy$  of Fig. 1, and Fig. 4 a detail sectional elevation on a line  $zz$  of Fig. 1.

In the practice of my invention I provide primarily an ordinary iron body A, which is supplied with a recess A', leading from the rear end of the iron to a desirable distance near the point. This body is preferably composed of cast-iron, and it may be of any adapted proportion and contour. The opening of the recess A' is normally closed by means of a hinged door A<sup>2</sup>, adapted for retaining the heat while the iron is in use and to afford access to the said recess when it is desired to light the burner, as will be hereinafter described.

As a means for supplying the heating agent to the interior of the iron I employ a removable burner B, which embodies the centrally-located longitudinal duct  $b$ , the transverse extension  $b'$ , and the inlet  $b^2$ . This structure

is composed of a single casting of iron, and it is supplied with flat under and side surfaces to fit snugly against the inner surface of the recess A' of the iron body A. The ducts leading through the casting are preferably drilled, the duct  $b^2$  being extended from the top downwardly at an angle toward the longitudinal center of the recess A' into the transverse duct  $b'$ , which joins the longitudinal discharge-duct  $b$ . The outer end of the opening  $b'$  is closed by means of the plug  $b^3$ , which is shrunk in to maintain a tight joint. The inner end of the duct  $b$  is funnel-shaped and leads into an enlarged discharge-opening B', which contains a perforated plug C for distributing the gas. This plug is preferably composed of lava; but I may use cast-iron or other suitable material, if desired. The distributing-plug rests against an annular shoulder  $c$  of the discharge-opening B', and it is held in place by a coating of red lead  $c'$  or other adapted means.

Located immediately in front of the discharge-opening of the burner is a deflector D, which is segmental in both longitudinal and cross section, whereby a concaved surface is provided to deflect the projected flame backwardly and downwardly in order that the heat may be evenly distributed over the surface of the iron. The deflector is further supplied with a downwardly-extended wing or rib  $d$  to split the flame and deflect it to each side of the iron, and it is supplied with a forwardly-extended base D', which is secured to the floor of the recess A' by means of the screw E, which is introduced into the recess through the opening  $a$  in the upper wall thereof. This opening is normally closed by means of the plate F, which is secured to the body of the iron by the screw  $f$ , whereby the deflector may be readily removed, if desired.

As a means for securing the casting B within the iron, the upright portion thereof is provided at its upper end with lugs B<sup>2</sup>. These lugs are supplied with threaded openings for engagement with screws G, which lead through studs H, formed on the upper surface of the iron body A. These studs also act to support the handle I, and a suitable number of auxiliary studs H' are also supplied for engagement with fastening-screws G', whereby the handle is securely attached



to the iron. The said handle embodies the hand-grip I<sup>1</sup> and the base-plate I<sup>2</sup>, and a sheet of asbestos or other non-heat-conducting material J is placed beneath the said plate to prevent the handle from becoming overheated. The plate I<sup>2</sup> is supplied with an angularly-extended opening *i*, which registers over a similar opening through the upper wall of the iron body A to the inlet-duct *b*<sup>2</sup> of the burner B, whereby the tubular supply-nozzle K can be readily attached to the duct *b*<sup>2</sup> by means of its threaded end *k* to supply the heating agent to the interior of the device. This nozzle is extended at an angle from the rear right-hand corner of the iron, whereby it is not in the way of the operator using the iron.

In the operation and use of the invention a flexible supply-pipe of any adapted construction and composition is attached to the nozzle K and led to any suitable mixing and air-compressing apparatus adapted to supply a blast of gas and air to the iron. The burner is then lighted and the door closed, whereby the device is ready for use, and the novel interior arrangement of the burner and deflector causes a continuous and even distribution of the projected flame.

When it is desired to remove or renew the interior parts of the device, it is simply necessary to unscrew the several screws which retain them, and it is obvious that with my novel construction such an operation can be readily effected without the necessity of cutting away or breaking any part of the structure.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

As a heating and distributing device for hollow sad-irons, the combination of a burner embodying an approximately vertical inlet-duct, a transverse duct leading therefrom and a longitudinal outlet-duct, with a deflector which is segmental in both cross and longitudinal section and which has a downwardly-extended wing for splitting the flame of the burner, substantially as shown and described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 3d day of July, 1900.

CHARLES H. SHEFTALL.

Witnesses:

HENRY PATTBURG,  
EDGAR A. MONFORT.