No. 712,307. Patented Oct. 28, 1902.

# W. JONES & L. JOHNSON.

## SAD IRON.

(Application filed Dec. 16, 1901.)

(No Model.) 2 Sheets—Sheet 1.

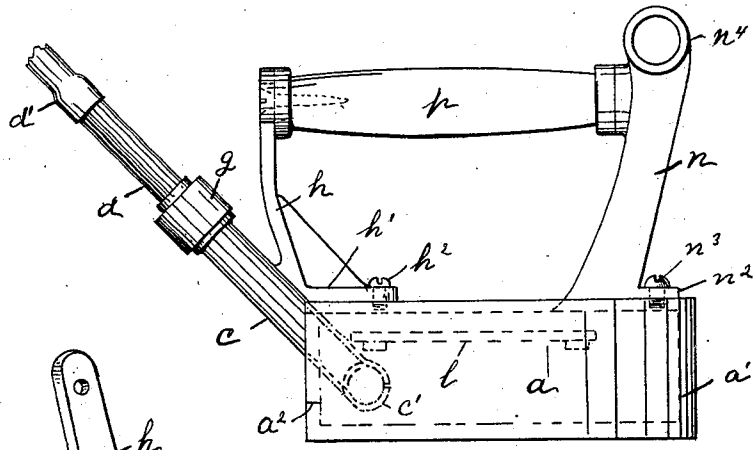


Fig. 1.

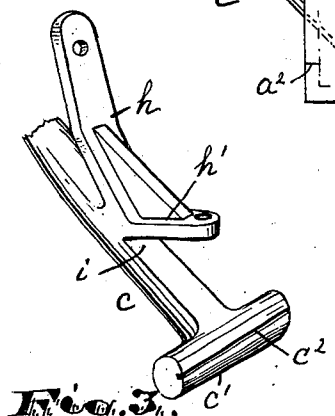


Fig. 3.

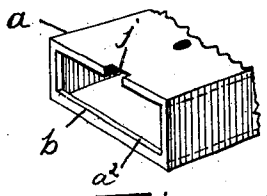


Fig. 4.

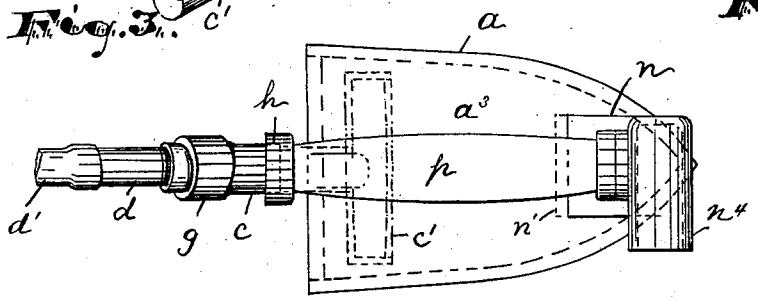


Fig. 2.

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## SAD IRON.

(Application filed Dec. 16, 1901.)

(No Model.) 2 Sheets—Sheet 2.

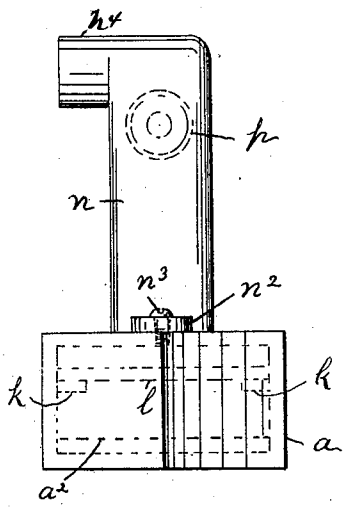


Fig. 5.

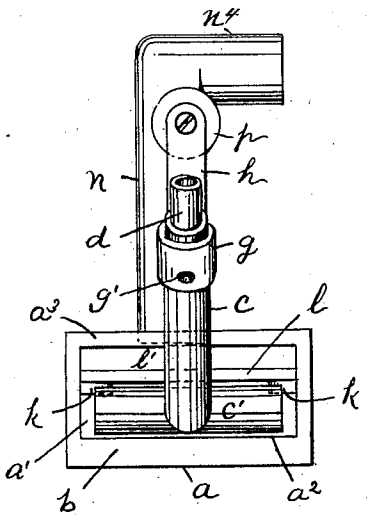


Fig. 6.

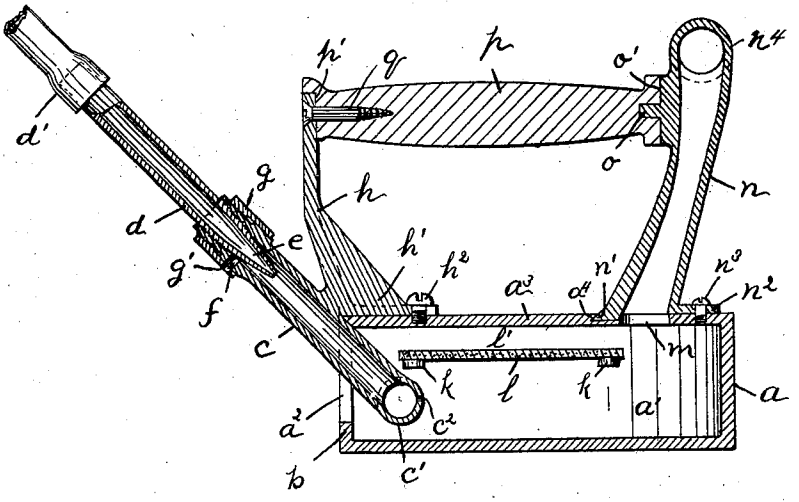


Fig. 7.

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# UNITED STATES PATENT OFFICE.

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## SAD-IRON.

SPECIFICATION forming part of Letters Patent No. 712,307, dated October 28, 1902.

Application filed December 16, 1901. Serial No. 86,080. (No model.)

*To all whom it may concern:*

Be it known that we, WILLIAM JONES and LOUIS JOHNSON, citizens of the United States, residing at Kearny, in the county of Hudson and State of New Jersey, have invented certain new and useful Improvements in Sad-Irons; and we do hereby 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.

This invention relates to that class of self-heating sad-irons which are adapted to be heated by gas; and the objects of the invention are to secure a simple construction and facilitate the manufacture of the iron, to shield the top of the iron from heat and to effectively warm the lower part, to secure an improved arrangement of burner, to provide an iron made up of conveniently separable parts, so that if one be broken it is readily replaced, and to obtain other advantages and results, some of which may be referred to hereinafter in connection with the description of the working parts.

The invention consists in the improved sad-iron and in the arrangements and combinations of parts of the same, all substantially as will be hereinafter set forth and finally embraced in the clauses of the claim.

Referring to the accompanying drawings, in which like letters of reference indicate corresponding parts in each of the several figures, Figure 1 is a side elevation of our improved sad-iron, and Fig. 2 is a plan of the same. Fig. 3 is a perspective view of the combined burner and handle-bracket detached, and Fig. 4 shows the seat afforded by the body portion for attaching said combined burner and handle-bracket. Fig. 5 is a front end elevation of the sad-iron, and Fig. 6 is a similar rear end elevation. Fig. 7 is a central vertical section of the iron.

In said drawings, $a$ indicates the body portion of our improved iron, which comprises an integral casting of the usual triangular or approximately triangular form in plan. Said body $a$ is hollow to form an interior chamber $a'$ and is provided at its rear or heel end with an aperture $a^2$, which aperture preferably extends the entire width of the iron and from a point flush with the top wall $a^3$ of the body portion downward to a point somewhat above the bottom wall or floor, so as to provide a raised ledge $b$ at the rear of the interior chamber.

Through the rear aperture $a^2$ a burner is adapted to project into the interior chamber of the sad-iron, said burner comprising a T-shaped tubular main portion $c$, slotted, as at $c^2$, for the length of its cross-piece $c'$ on the side facing the interior of the sad-iron. Said burner is arranged in an inclined position, so that its lower end lies well within the chamber of the sad-iron, while the opposite end extends upwardly away therefrom, and the cross-piece $c'$ of the burner preferably extends almost clear across the chamber of the sad-iron, as shown in Fig. 2, though it may be of any length.

Into the upper end of the main portion $c$ of the burner is preferably screwed a nipple $d$, carrying a reducer $e$ at its lower end, and at its upper end being adapted to connect with a flexible tube $d'$, leading to any suitable supply of gas. The body of the burner $c$ is provided below the nipple $d$ with an opening $f$ for the admission of air, said opening being regulated in size or entirely closed by means of a sleeve $g$, screwing upon the body of the burner and having an opening $g'$, which can be brought into registration with the air-hole $f$.

The burner $c$ is preferably supported in the position described by reason of its being connected integrally or otherwise to a handle-bracket $h$, which extends upward from the top of the sad-iron body at its rear end and has a foot $h'$, adapted to be fastened by a screw $h^2$ to said top of the sad-iron. The said foot $h'$ projects forward at an angle with the inclined burner, thereby providing a recess or seat $i$, which is adapted to receive the rear edge of the top wall $a^3$ of the body portion. Said edge is preferably notched or recessed, as at $j$, to admit the united burner and bracket and prevent lateral displacement.

On the interior of the side walls of the sad-iron body are cast integral lugs $k$, which serve

to support an asbestos sheet or partition $l$ horizontally beneath the top of the body portion and at a distance therefrom, so as to provide an air-space $l'$ between said partition and the said top wall.

Near the point or toe of the iron the top wall $a^3$ is apertured, as at $m$, said aperture communicating with the interior of a hollow handle-post $n$, which extends upward from the top of the iron and serves also as a draft flue or chimney. Said hollow post has at the rear side of its base a toe or extension $n'$, adapted to project into an undercut recess $a^4$ of the sad-iron top, and at the forward side of said base is a lug $n^2$, through which a screw $n^3$ may be passed into the sad-iron body, thus retaining the post $n$ firmly in place. Near its top said post $n$ has a rearwardly-projecting pintle $o$ and surrounding seat $o'$, adapted to receive the correspondingly-fitted forward end of a wooden handle $p$, the rear end of said handle being recessed to inclose the top of the bracket $h$, and a screw $q$ being passed through said bracket into the handle.

In operation, a suitable supply of gas being had to the burner $c$, the flame extends forward from said burner beneath the asbestos plate $l$, occupying the entire width of the said iron-chamber, and is directed up the chimney or flue $n$, effectually heating the sad-iron body in its passage. The operator then simply pushes the iron about and employs it in the usual manner, the flexible gas-supply tube freely permitting such movements. The draft flue or chimney $n$ is preferably at its top extended or opened horizontally to one side, so as to prevent a back draft when the iron is pushed vigorously forward. The said horizontal extension or discharge-opening $n^4$ at the top of the chimney preferably is directed away from the operator—that is, to the right for a right-handed person and to the left for a left-handed person. Chimneys can therefore be made in rights and lefts and applied as required by the purchaser.

By the construction thus described we provide a sad-iron which can be simply and cheaply manufactured and one which has proven very efficient in use. Furthermore, the parts of our sad-iron which would be liable to breakage in case of dropping the sad-iron or other accident are made detachable, so that any of said parts can be replaced without the loss of the entire iron.

Having thus described the invention, what we claim as new is—

1. A sad-iron providing a hollow body portion open at its rear end or heel, and having a handle-bracket adapted to be fastened on top of the body, and an inclined burner adapted to extend rearwardly upward out of the rear open end of the body, said bracket projecting rearwardly from the iron-body and being connected to the said burner and forming an angular recess adapted to receive the rear edge of the top wall of the iron-body, said rear edge being notched as at $j$, to form a seat for the said parts connected as described and prevent lateral displacement, substantially as set forth.

2. In a sad-iron, a hollow body portion closed at its top and being at its vertical rear end open from the top wall downward, an inclined burner extending rearwardly upward out of the rear open end of said body and a handle-bracket adapted to be secured on the top of the said body portion somewhat forward of its rear end, and having a rearward horizontal extension lying along the top of the body portion and projecting beyond its rear end and joining the burner and forming therewith a forwardly-opening seat adapted to grasp the rear edge of the body-portion top.

3. The herein-described gas sad-iron, comprising a hollow casting or body portion of one integral piece and having on its opposite interior or walls projections or lugs disposed in a plane parallel to the bottom of the iron, said body having at its heel or rear end an opening extending flush with the top and side walls, an asbestos partition adapted to be inserted through said rear opening onto the said lugs or projections, a T-shaped burner forwardly inclined through the rear open end of the body portion and having its cross-piece disposed transversely of the iron and located sufficiently forward to lie beneath the said asbestos partition, said cross-piece being closed at the ends and having a gas-aperture at its front side, means for supporting said burner, and draft means at the forward end of the body portion.

In testimony that we claim the foregoing we have hereunto set our hands this 23d day of November, 1901.

WILLIAM JONES.
LOUIS JOHNSON.

Witnesses:
CHARLES H. PELL,
C. B. PITNEY.