H. DIFLO.

SAD IRON.

APPLICATION FILED AUG. 7, 1911.

1,067,100.

Patented July 8, 1913.

2 SHEETS—SHEET 1.

FIG. I.

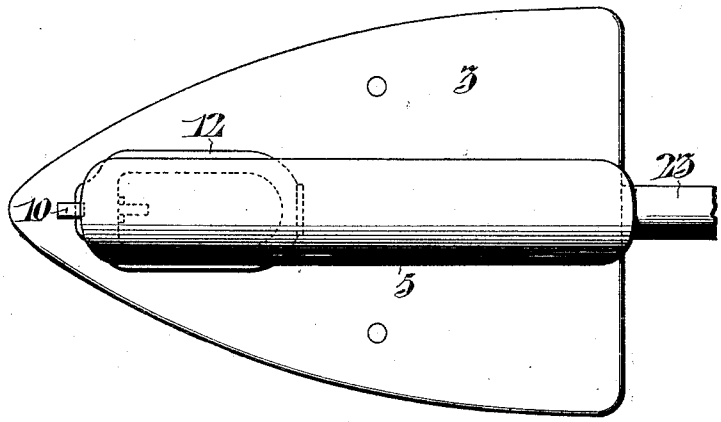


FIG. II.

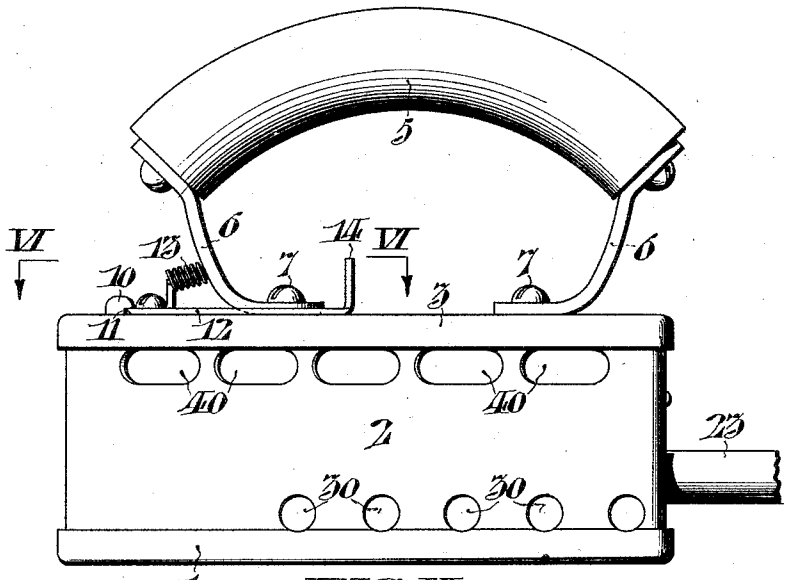
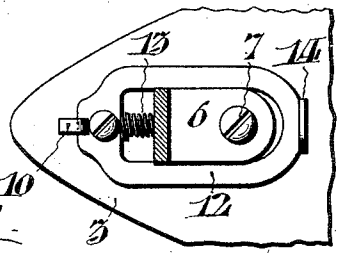


FIG. VI.



Witnesses

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2 SHEETS—SHEET 2.

FIG. III.

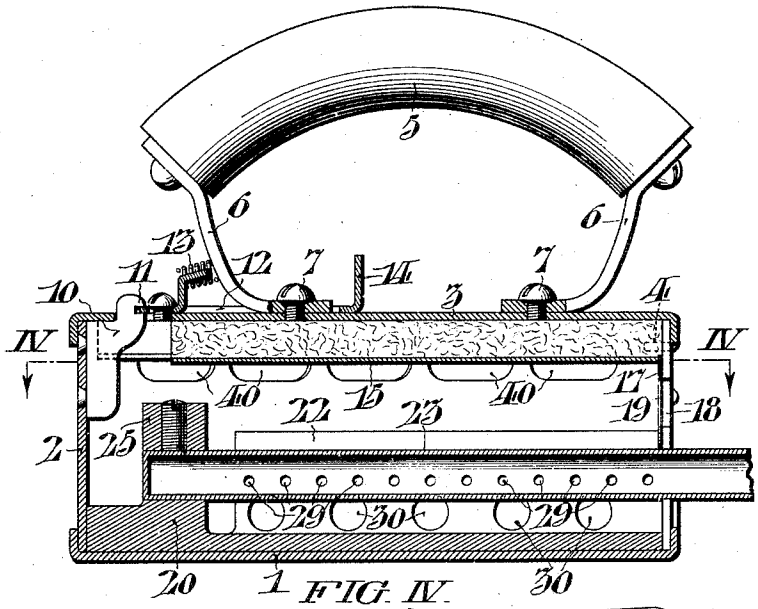


FIG. IV.

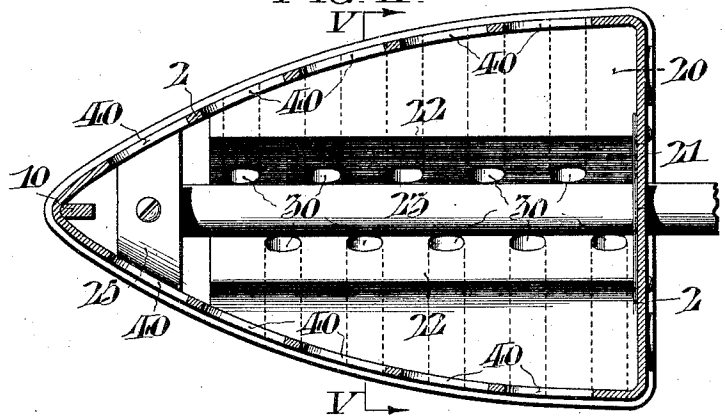
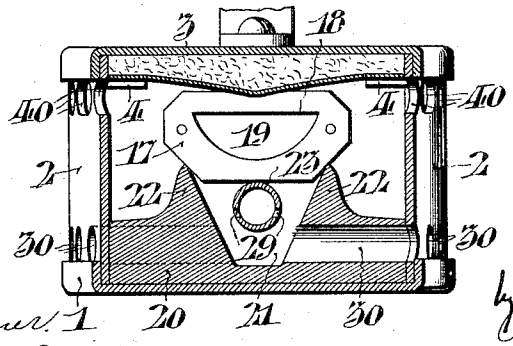


FIG. V.



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HARRY DIFLO, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO THE ECLIPSE METALLIC SPECIALTY COMPANY, OF PHILADELPHIA, PENNSYLVANIA, A CORPORATION OF DELAWARE.

SAD-IRON.

1,067,100. Specification of Letters Patent. Patented July 8, 1913.

Application filed August 7, 1911. Serial No. 642,720.

To all whom it may concern:

Be it known that I, HARRY DIFLO, of the city and county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Sad-Irons, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to a sad iron, the hollow interior of which is provided with a special combustion chamber, the thick metal walls of which hold the heat, at the same time giving weight to the iron. Means are provided for supplying gas and air to the combustion chamber, and the walls of the combustion chamber are so shaped as to deflect flame preventing the products of combustion from carrying the flame out through the side walls of the sad iron. In this way a maximum heating effect is secured from a minimum amount of gas.

Other novel features are the three-piece casing, the false top and the latched top, all of which will be hereinafter described.

A sad iron embodying my invention is illustrated in the accompanying drawings, in which—

Figure I, is a plan view of the sad iron. Fig. II, is a side elevation of the same. Fig. III, is a central longitudinal section of the same. Fig. IV, is a horizontal section, along the line IV, IV, of Fig. III. Fig. V, is a vertical cross section along the line V, V, of Fig. IV. Fig. VI, is a detail view of the catch for holding the hinged top in place.

The casing of the sad iron is formed of three pieces each stamped from sheet metal. These pieces consist respectively of the base 1, the wall piece 2, and the top 3. The base 1, is formed with an upwardly projecting peripheral flange, and the top 3, is formed with a similar downwardly projecting flange. The wall piece is received within the flanges of the base and top and fills the space between them. The wall piece is securely and permanently attached to the flanged base. The top is not thus secured, but is hinged at the rear to the wall piece by means of projecting lugs 4, 4, engaging slots in the upper edge of this part of the wall piece.

To the top is secured a handle, consisting of the wooden hand piece 5, and two bracket arms 6, 6, fastened to the handle, and also (preferably by the screws 7, 7,), to the longitudinal center of the sad iron.

In order to hold the hinged top in place upon the iron, I provide a locking tongue 10, which is made fast to the wall piece near the forward end of the sad iron, and which projects up through a corresponding aperture in the top piece near its nose. This locking tongue is provided with a slot 11, which receives a latch piece 12, forwardly pressed into engagement with it by the spring 13. This latch is a sliding piece, preferably shaped as shown in Fig. VI, so as to surround the attachment of the forward bracket arm of the handle, which operates to guide the latch piece. It is also provided with a thumb piece 14, for withdrawing the latch when it is desired to open the sad iron.

To lessen the radiation of heat through the top of the sad iron, I provide a false top 15, which is attached to the lower surface of the top proper, with interposition of asbestos or similar non-combustible packing.

In order to permit observation of the flame without opening the top, a window 18, is provided in the rear wall of the sad iron, protected by a transparent piece of isinglass 19, and held in place by the metal piece 17.

Within the hollow interior of the sad iron is inserted the heavy metal conduction piece 20, which is provided with a central combustion chamber 21, having upwardly flaring or inclined walls 22. This conduction piece has a three-fold purpose:—to form the combustion chamber, to conduct the heat to the base plate and to give weight to the sad iron. Within the combustion chamber formed in the interior of this conduction piece a gas supply pipe 23, is inserted, occupying about the central part of said chamber. This pipe is supported forwardly by the supporting lug 25, and rearwardly by the rear wall of the sad iron.

The gas supply pipe is perforated by jet apertures 29. The combustion chamber has air supply passages 30, 30, consisting of channels formed in the conduction piece, and registering with corresponding openings formed in the walls of the sad iron. These supply air to the combustion chamber, so that the gas from the gas pipe is burned therein in the form of jets.

An important feature of my invention consists in placing the gas supply pipe with-

in the combustion chamber, well below its upper edge. Thereby there is provided a large metal heat absorbing surface almost surrounding the combustion chamber, and thereby also the direct passage is prevented of flame from the combustion chamber to the exit holes 40, with which the wall piece of the sad iron is provided near its top.

The projection of the flanges of the top and bottom piece on the outer surface of the wall piece serves to protect the apertures of the wall piece from being temporarily choked by contact with the goods which are being ironed.

Having thus described my invention, I claim:

1. A sad iron provided with a casing containing a heavy metal conduction piece, which is provided with a central combustion chamber, open at the top and running from the front to the rear of the conduction piece, said chamber having upwardly flaring walls, a gas supply pipe within the combustion chamber, and air supply apertures piercing the walls of the conduction piece, and leading to the combustion chamber.

2. A sad iron provided with a casing, which is formed of a base plate with an upwardly projecting peripheral flange, a top plate with a downwardly projecting peripheral flange, and a wall piece received within said flanges and occupying the space between the two, a heavy metal conducting piece, located within said casing and engaging the inner face of said wall piece, said conduction piece being provided with a central combustion chamber, open at the top and running from the front to the rear of the conduction piece, a gas supply pipe within the combustion chamber, and air supply apertures piercing the wall piece, and the walls of the conduction piece, and leading to the combustion chamber.

In testimony whereof, I have hereunto signed my name, at Philadelphia, Pennsylvania, this fourth day of August, 1911.

HARRY DIFLO.

Witnesses:
JAMES H. BELL,
A. REID.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."