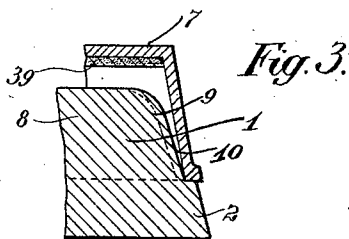
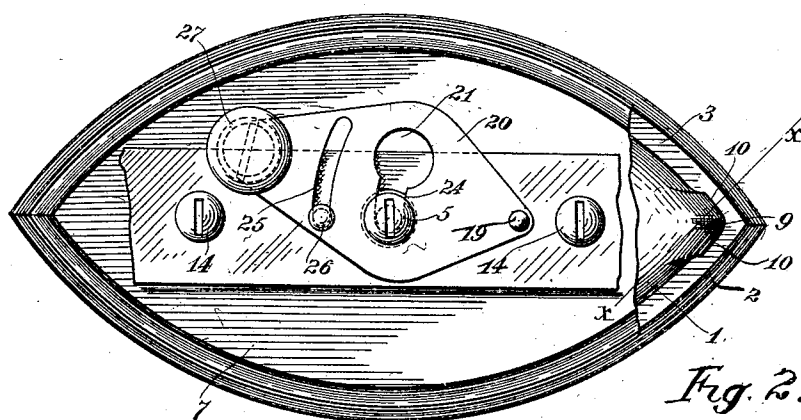
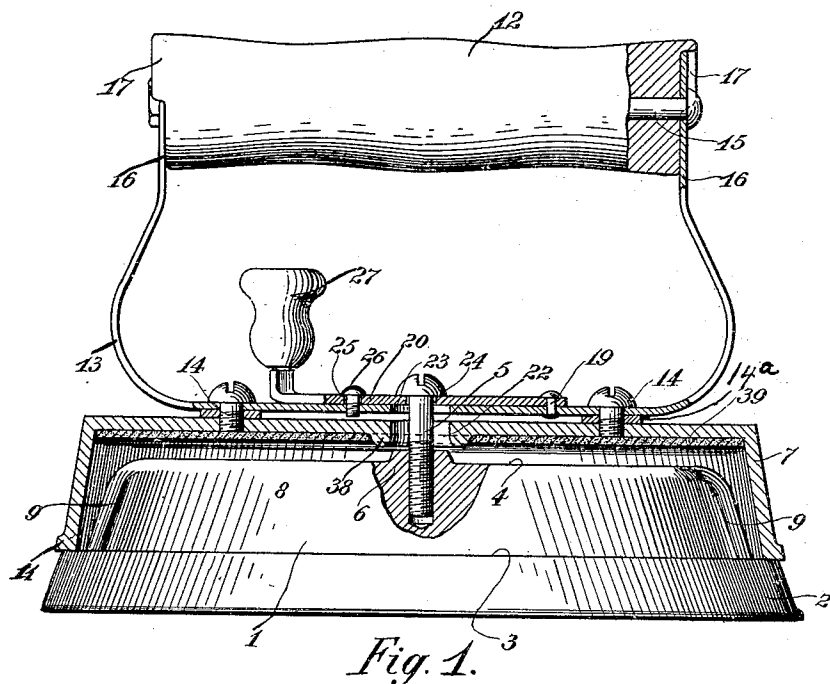


SAD IRON.

958,638.

2 SHEETS--SHEET 1.



Witnesses:  
R. C. Bletcher  
A. A. Brown

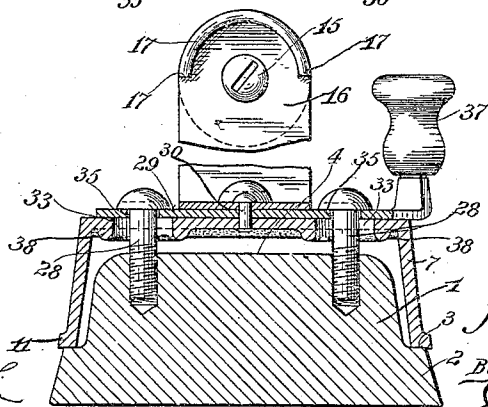
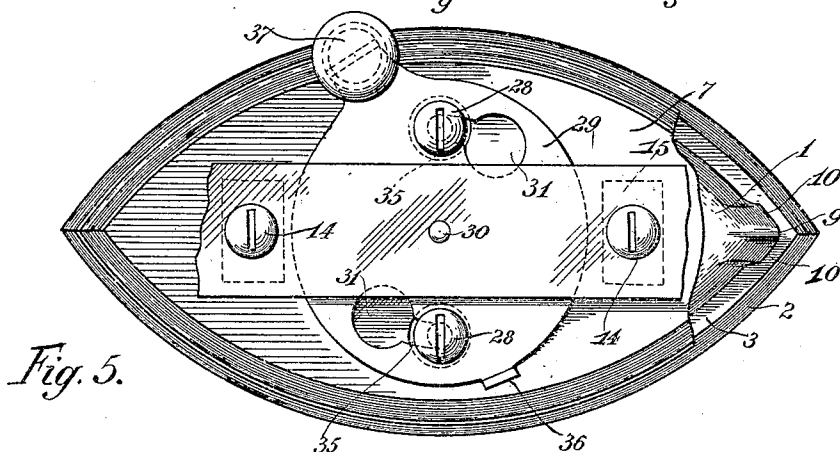
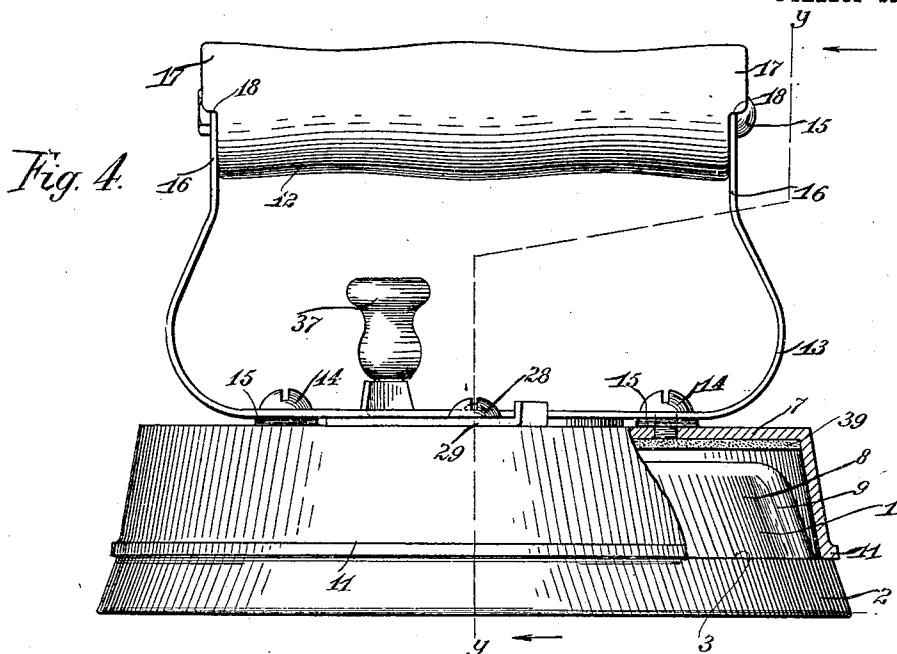
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SAD IRON.

**958,638.**

Patented May 17, 1910.

2 SHEETS—SHEET 2.



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Fig. 6

# UNITED STATES PATENT OFFICE.

JAMES M. HARPER, OF CHICAGO, ILLINOIS, ASSIGNOR TO HARPER SUPPLY COMPANY,  
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## SAD-IRON.

958,638.

Specification of Letters Patent.

Patented May 17, 1910.

Application filed December 21, 1908. Serial No. 468,503.

*To all whom it may concern:*

Be it known that I, JAMES M. HARPER, a citizen of the United States, residing at Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Sad-Irons, of which the following is a specification.

My invention relates to sad irons, and more specifically to that class of the same in which the handle is made detachable from the body portion of the sad iron.

The object of my invention is to provide a sad iron of the character mentioned in which the detachable handle portion will be so constructed as to be adapted to be successively used in connection with a number or series of sad iron bodies.

A further object of my invention is to provide a sad iron as mentioned, in which the detachable handle portion may be quickly and readily detached from one body portion and which may be just as readily and easily attached to another, and further a sad iron in which the connection between said handle and body portions will be of the greatest rigidity and security.

Other objects will appear hereinafter.

With these objects in view, my invention consists in a sad iron characterized as above mentioned and in certain details of construction and arrangement of parts all as will be hereinafter fully described and particularly pointed out in the claims.

My invention will be more readily understood by reference to the accompanying drawings forming a part of this specification, and in which—

Figure 1 illustrates the preferred form of my device, portions being shown in section so as to better illustrate its construction. Fig. 2 is a top plan view thereof, the handle and a portion of the cap thereof being broken away. Fig. 3 is a vertical oblique sectional detail taken on the line  $x-x$  of Fig. 2. Fig. 4 is a side elevation of a slightly modified form of my device, a portion thereof being broken away so as to better illustrate its construction. Fig. 5 is a top plan view thereof, the handle and a portion of the cap of the same being broken away so as to expose underlying parts, and Fig. 6 is a vertical transverse section taken on the line  $y-y$  of Fig. 4.

Referring now to the drawings, especially

to Figs. from 1 to 3 inclusive, 1 indicates the body portion of my sad iron, the same being provided at its base portion with a projection 2, thereby forming a peripheral shoulder 3. Upwardly or vertically extending from the center of the upper surface 4 of the sad iron body 1, the same being preferably threaded therein, is a preferably round headed screw 5, a boss 6 provided upon the upper surface of the member 1 at that point acting in the capacity of reinforcing means for said screw. 7 indicates a cap piece, the same being adapted to fit over and inclose the reduced upper portion 8 of the body 1, the lower edge of said cap being adapted, when the latter is in position upon the body 1 to rest upon the peripheral shoulder 3 of the latter, as clearly shown in Fig. 1. In order to lock said cap against horizontal movement relative to the body 1, I provide the extremities of the reduced upper portion 8 of the latter with tapering integral projections 9, against the diverging surfaces 10 of which are adapted to rest the correspondingly diverging inner surfaces of the end portions of said cap, when the latter is in position upon said body, such engagement being clearly shown in Fig. 3. A bead 11 formed on the lower margin of the cap piece 7 hides the seam between said cap and body, when the same are assembled, and at the same time gives a finished appearance to the sad iron. 12 indicates a handle or grip, the same being secured by means of a yoke 13 to the upper surface of the cap 7. The connection between said yoke and cap piece is made by means of screws 14, the same extending through perforations provided in the horizontally extending portion of said yoke and being threaded in the upper wall of said cap. Washers 14<sup>a</sup> interposed between said yoke and said cap elevate said yoke from direct contact with said cap. The connection between said yoke and handle is made by means of a bolt 15, the same extending entirely through said handle, and the extremities thereof resting in perforations provided in the vertically extending end portions 16 of said yoke. In order to avoid rotation of the handle relative to the yoke, I form the upper portion of the extremities of the latter with a projecting semi-circular flange 17, the extremities of said flange being adapted to engage shoulders 18

formed upon the upper extremities of the yoke end portions 16, as clearly shown in Fig. 6. Pivotal secured as at 19 upon the horizontally extending portion of the yoke 16 is a horizontally disposed lock plate 20. Said plate is provided with a circular aperture 21, through which and through alining openings 22 and 23 provided in the cap and yoke respectively for the reception of the same, is adapted to extend the screw 5, when said cap is in position upon the sad iron body. The plate is provided with a slot 24 leading from the aperture 21 which is brought into engagement with the screw by partially rotating said plate, in which event the head of said screw will be adapted to engage or to snugly rest upon the upper surface of said plate, as clearly shown in Fig. 1, hence forming a rigid connection between said handle and sad iron body. Any wear upon the contacting portions of said screw head and lock plate may be readily taken up, because of said screw being in threaded connection with the sad iron body, hence a constant rigid connection between said parts is facilitated. An arcual slot 25 engaged by a screw 26 in threaded connection with the yoke 13, acts in the capacity of a guide for said plate. A handle or knob 27 provided at the end portion of said plate 20 facilitates its ready actuation.

In Figs. from 4 to 6 inclusive, I have shown a slightly modified form of my device, the modification in which form lies wholly in the means of detachably securing the handle to the sad iron body. The remaining similar parts of the two forms of my sad iron will therefore be given like numerals of reference. In the latter form the body is provided with vertically extending screws 28, two in number, the same being positioned in the transverse center line of the body 1, equally distant from the respective edges thereof. Said screws, like the screw 5 of my preferred form of sad iron, are preferably round headed, the same being in threaded connection with the sad iron body. Pivotal secured at its center to the upper surface of the cap piece 7, the same being preferably interposed between the horizontally disposed portion of the handle yoke and the upper surface of the cap piece is a disk 29, the extremities of the pivotal pin 30 of said connection being secured respectively in said parts, as clearly shown in Fig. 6. Said disk is provided with diametrically opposed circular apertures 31, through which, and alining perforations 33 provided in the upper wall of the cap piece for the reception of the same, are adapted to extend the screws 28, when the cap is in position upon the sad iron body. By turning said disk through a partial rotation, it is evident that said screws will engage the reduced arcual slots 35 leading from said apertures 31, in which event the head

thereof will be adapted to engage or rest upon the upper surface of said disk with an obvious result. Said screws may also, as before described with reference to the screw 5, be adjusted so as to take up any wear upon the contacting surfaces of said parts. A projection 36 upwardly extending from the periphery of the disk 29 acts as a stop for the latter, the circular apertures 31 of said disk being, when said projection is in contact with the edge of the horizontally extending portion of the handle yoke, positioned directly over the perforations 33 of the cap piece, and hence in a position adapted to receive the screws 28. A handle or knob 37 provided upon said disk at the periphery thereof, facilitates the rotation or actuation of said disk.

In either of the forms of my sad iron, the under surface of the cap piece thereof surrounding the perforations therein provided for the reception of the screws 5 or 28 as the case may be, is provided with a depending flaring flange 38, such provision being made to guide the screw head in said perforation when attaching the handle, hence facilitating the ready assemblage of the parts. The under surface of the cap piece of each of said forms is also preferably provided with a lining 39 of asbestos, which obviously acts in the capacity of a heat insulator for the handle.

While I have shown what I deem to be the preferable forms of my device, I do not wish to be limited thereto, as there might be many changes made in the details of construction and arrangement of parts without departing from the spirit of my invention.

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

1. In a sad iron, the combination of a body portion provided with a peripheral shoulder, a handled cap piece adapted to rest upon said shoulder and to envelop the portion of said body above said shoulder, projections provided at the extremities of the upper body portion adapted to engage the inner surfaces of the end portions of said cap piece, a screw threaded in and upwardly extending from said body midway the extremities thereof, and a horizontally disposed slotted plate in pivotal connection with said cap piece, the slots in said plate being adapted to engage said screw, substantially as described.

2. In a sad iron, the combination of a body portion provided with a peripheral shoulder, a cap-piece adapted to rest upon said shoulder and to envelop the portion of said body above said shoulder, a tapering projection provided at the extremities of said upper body portion against which the inner surface of the end portions of said cap-piece are adapted to rest, a handle upon

said cap-piece, a headed member extending  
upwardly from said body and adapted to ex-  
tend through said cap-piece, and a horizon-  
tally disposed lock plate pivotally mounted  
5 upon said cap-piece and adapted to engage  
said headed member, substantially as de-  
scribed.

In testimony whereof I have signed my  
name to this specification in the presence of  
two subscribing witnesses.

JAMES M. HARPER.

Witnesses:

JANET E. HOGAN,  
W. C. SMITH.