

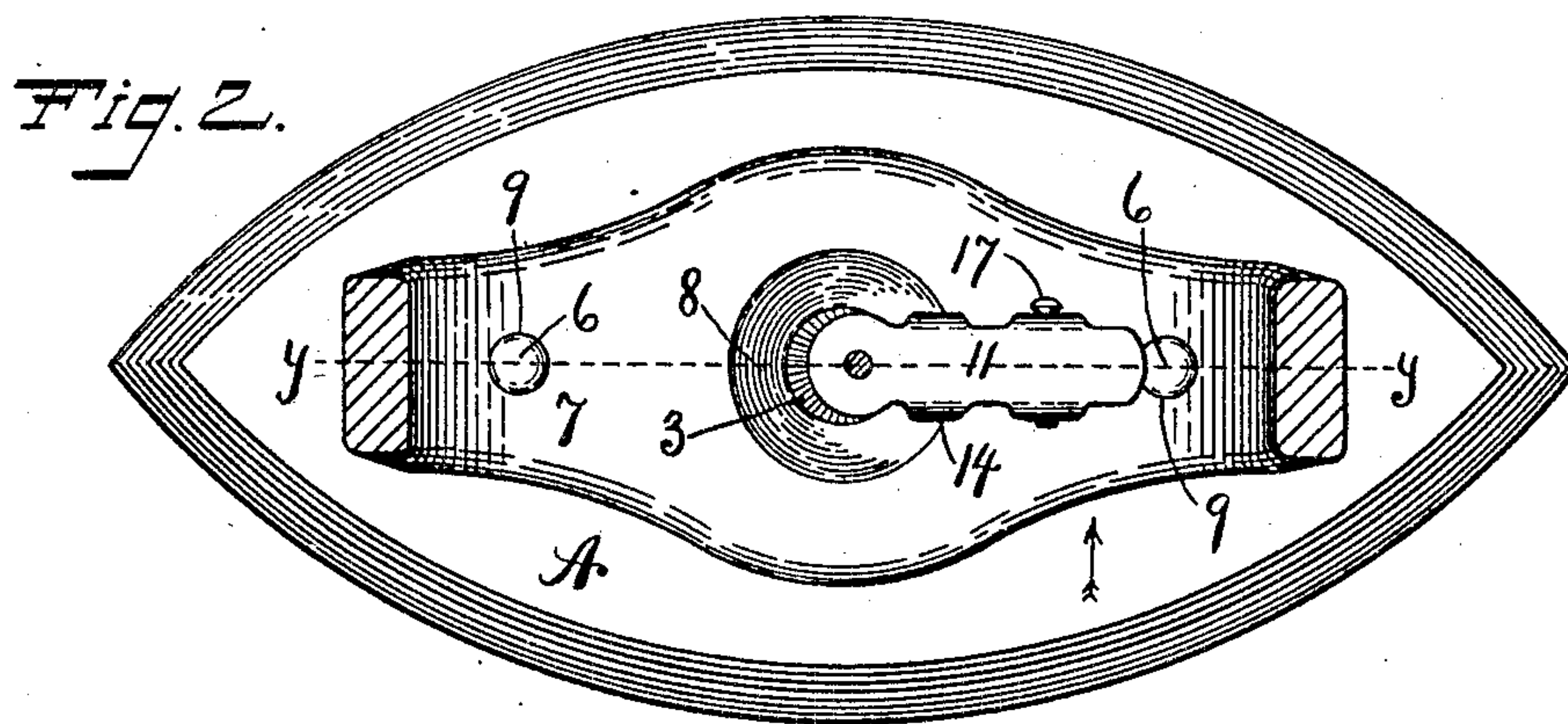
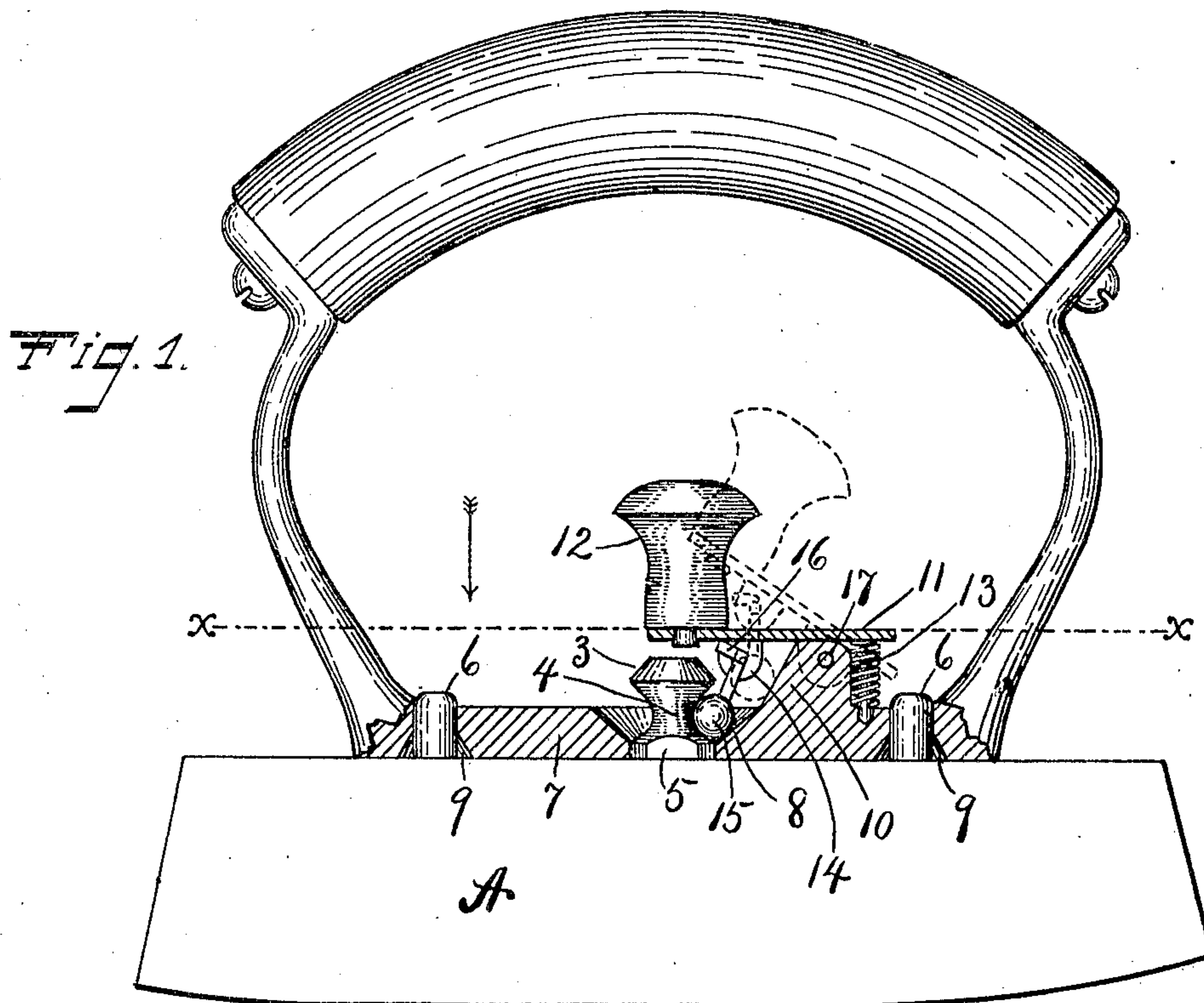
No. 844,638.

PATENTED FEB. 19, 1907.

A. A. WARNER.

SAD IRON.

APPLICATION FILED JULY 20, 1906.



Witnesses.

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# UNITED STATES PATENT OFFICE.

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## SAD-IRON.

No. 844,638.

Specification of Letters Patent.

Patented Feb. 19, 1907.

Application filed July 20, 1906. Serial No. 327,014.

*To all whom it may concern:*

Be it known that I, ALONZO A. WARNER, a citizen of the United States, residing at New Britain, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Sad-Irons, of which the following is a specification.

The invention relates to improvements in sad-irons; and the objects of the invention are simplicity and economy in construction and convenience and efficiency in use, particularly with reference to the detachable handle and security against accidental detachment.

In the accompanying drawings, Figure 1 is a broken-out sectional side elevation of the sad-iron, the plane of section being indicated by the line *vv* of Fig. 2. Fig. 2 is a sectional plan of the same on the line *xx* of Fig. 1.

The body A of the sad-iron may in general be of any ordinary form. The top is preferably provided with a flat surface from which there projects a central holding-stud having a head 3 of a round form in plan view and with a rounded groove that forms the neck 4, immediately under the said head. This is best made of a separate piece and then screwed into the top of the sad-iron body, the straight face 5 at the base of the said stud being formed for the application of a wrench in screwing in the stud. One or more dowel-pins 6 also project above the top face of the body A.

The main portion of the handle B may be of any ordinary form. The base 7 of the handle is a plate-like structure provided with a central hole or opening to fit over the base of the stud 3 4, the said hole being countersunk on a taper to form a holding-face 8, that slants inwardly and downwardly to the said hole and to the base of the neck 4 and which is substantially parallel to the under face of the head 3 in the neck 4. The said base 7 is also provided with two holes 9 to serve as sockets for the two dowel-pins 6. The top of the head 3 is tapered upwardly, and the dowel sockets or holes 9 are preferably countersunk on their under side to facilitate seating the handle in place on the body. The hole for the central stud should be central, and the two dowel-pins and their sockets should each be the same distance therefrom, so that the handle may be placed in position with either end forward.

In order to secure the handle by its base 7 to the headed stud and dowel-pins on the body A, the said base is provided with a lug 10, to which an operating-lever 11 is pivoted or hinged, as at 17, the said lever being provided with a lifting-knob or handle 12 and held normally in position by a spring 13, which, in the present instance is placed under the tail of the lever and bears upon the top of the base 7, with a constant tendency to retain the lever in the position shown by full lines in Fig. 1. The lever 11 is provided with a pair of hinge-lugs 14 at a point adjacent to the head 3, upon which lugs a pendent fastening-tongue is pivoted, the said tongue having a ball-shaped end 15 for fitting the grooved side of the neck 4 and lying as a metal block between the under face of the head 3 and the holding-face 8 of the base 7. This tongue is also provided with a stop-arm 16 for engaging the under face of the lever 11, as shown in Fig. 1, to limit the swinging movement of the said tongue in the outward direction.

With the handle placed in the position shown in Fig. 1 the dowel-pins serve as means to prevent the handle from rotating on the central stud, and the pins and stud together serve to prevent lateral movement of the handle in any direction. The ball-shaped end 15 of the fastening-tongue is an interposed block of metal lying between the holding-face 8 of the handle-base 7 and the under face of the head 3 of the stud 3 4, so as to effectually lock the handle against being lifted from the stud and pins. In thus locking the parts the whole reliance is the solidity of the metal interposed between the holding-face and under side of the head, there being no tendency under strain to displace the said tongue. On the contrary, a lifting strain on the handle creates friction on the fastening-tongue, which friction has a tendency to hold the tongue more firmly in place. When the handle is depressed or is at rest, this friction is released, and the tongue can be easily withdrawn by merely lifting the lever 11 into the position indicated by broken lines in Fig. 1. The handle may then be lifted off the central stud and dowel-pins, and as the lever 11 is released the spring 13 will return the said lever and its tongue to the position shown in Fig. 1, only the handle will not be seated on the body.

To attach the handle, the handle-base 7 is



applied so as to present its central hole to the tapering head of the central stud and with the dowel-sockets over the dowel-pins. The handle is then dropped or pressed downwardly, when the ball-shaped end 15 of the tongue engages the outer beveled end of the head 3. By reason of the stop-arm 16 the tongue cannot swing outwardly, and hence the lever 11 is lifted and pressed back until the ball-shaped end 15 passes the head 3. Then as the handle is dropped the tongue returns to the locking position. (Shown in Fig. 1.)

I claim as my invention—

1. The combination of a sad-iron body with a holding-stud rigidly mounted thereon, the said stud having a head and a neck under the said head, a handle having a base provided with an opening to fit over the said stud, said base having a slanting holding-face extending outwardly and upwardly from the said opening and base of the said neck, an operating-lever hinged on the said handle-base, and a fastening-tongue hinged to the said lever and having an end adapted to engage the neck of the said holding-stud.

2. The combination of a sad-iron body with a holding-stud rigidly mounted thereon, the said stud having a head and neck, a han-

dle having a base provided with an opening to fit over the stud, said base having a slanting holding-face adjacent to the said opening, means for preventing the handle from rotating on the said stud, a fastening-tongue having an end adapted to engage the neck of the holding-stud and to form a locking-block of metal between the under face of the head of the said stud and the holding-face, of the said handle-base, and means for operating the said fastening-tongue.

3. The combination of a sad-iron body with a holding-stud rigidly mounted thereon, the said stud having a head and a rounded groove under the head forming a neck, a handle-base provided with an opening to fit over the said stud and bearing a slanting holding-face adjacent to the said opening, an operating-lever pivoted on the said handle-base and a pendent tongue pivoted to the said lever and having a ball-shaped end for engagement with the said groove of the stud and holding-face of the handle-base.

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Witnesses:

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