(No Model.)

S. WATERMAN.

SAD IRON.

No. 406,608. Patented July 9, 1889.

Fig. 1.

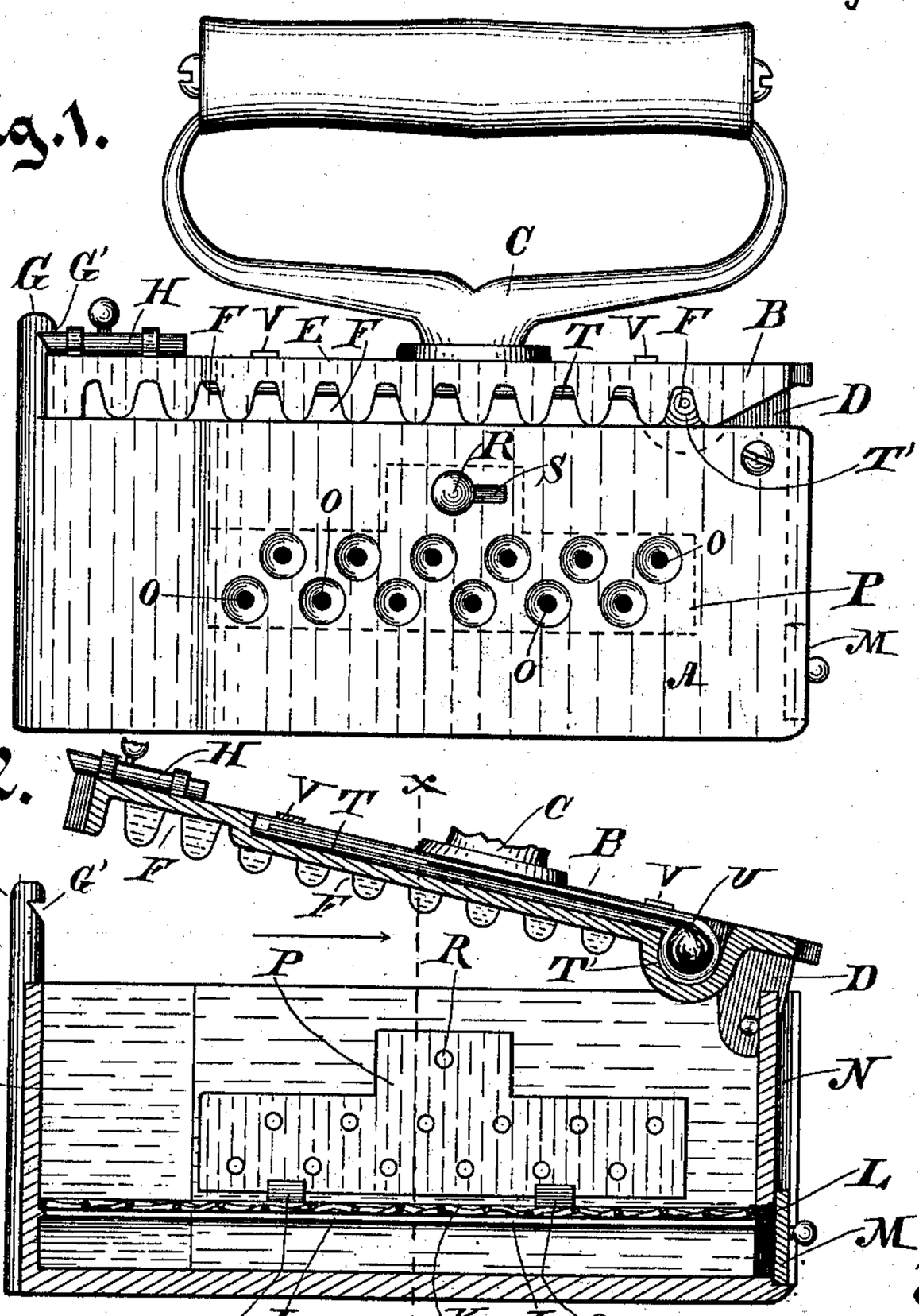


Fig. 2.

Fig. 3.

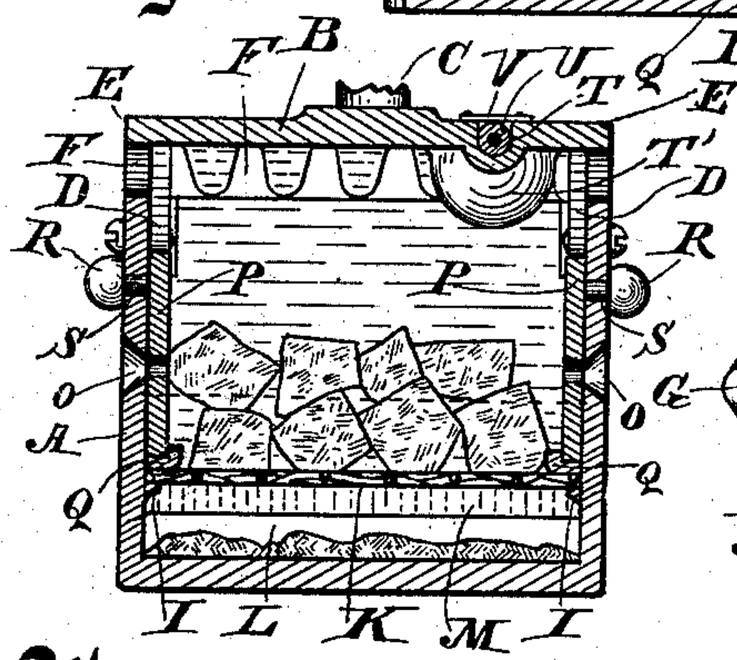
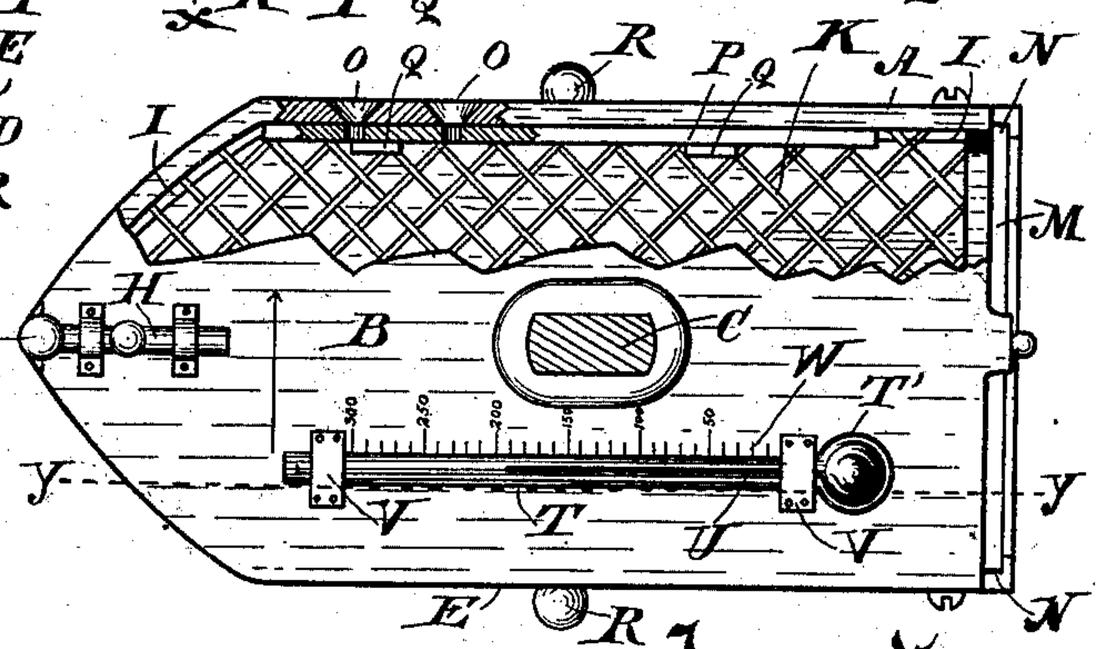


Fig. 4.



Witnesses.

C. H. Kenyon.

Rosa Faust.

Inventor.

Sarah Waterman

By Erwin S. Benedict

Attorneys.

UNITED STATES PATENT OFFICE.

SARAH WATERMAN, OF MILWAUKEE, WISCONSIN.

SAD-IRON.

SPECIFICATION forming part of Letters Patent No. 406,608, dated July 9, 1889.

Application filed December 31, 1888. Serial No. 295,175. (No model.)

To all whom it may concern:

Be it known that I, SARAH WATERMAN, of Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented new and useful Improvements in Sad-Irons; and I do hereby declare the following to be a full, clear, and exact description of said invention, reference being had to the accompanying drawings, and to the letters or figures of reference marked thereon, which form a part of this specification.

The object of my invention is to improve and perfect that class of sad-irons in which charcoal or a similar fuel is used in combustion for heating the sad-iron, and relates to minor devices for that purpose, as well as to others, for perfecting the sad-iron as an implement of housekeeping, the novel features of which will be hereinafter distinctly claimed.

In the drawings, Figure 1 is a side elevation of my improved sad-iron. Fig. 2 is a vertical longitudinal section of the same device on line Y Y of Fig. 4, looking in the direction of the arrow. Fig. 3 is a vertical cross-section of my improved device on line X X of Fig. 2, looking in the direction of the arrow. Fig. 4 is a top view of the same device, a portion of the cover and a part of one side being broken away to show interior parts.

The same letters refer to like parts in all the views.

A hollow metal case A is provided with a cover B, having affixed thereto a handle C. The cover B is provided with lugs D D, through which the cover is pivoted and hinged onto the case A, near the top at the rear end. The downwardly-turned edge of the cover E rests upon the top edge of the case A, and this edge of the cover is provided with a series of recesses, forming apertures F F into the hollow case A for the passage outwardly of heated air and gases. The front end of the case A terminates in an upwardly-projecting post G, provided with a recess G′, and a bolt H, secured movably to the cover B, is adapted to slide forward and back and engage in the recess G′ with the post G, thereby locking the cover upon the top of the case A. At a little distance from the bottom of the case A, projecting inwardly from the side walls, is a shoulder or ledge I, on which rests a screen or grate K, adapted to receive and hold thereon a supply of charcoal or similar fuel for combustion. Entirely across the rear end of the case A, near its lower edge, is an aperture L, extending vertically from opposite the top surface of the grate K to the bottom of the case, which aperture is closed by the vertically-sliding door M. This door M is retained movably in position by vertical ways N N, projecting from and integral with the sides of the case A.

The grate K fits snugly but removably in position on the ledges I, extending around the inner side walls and front of the case A, and may be withdrawn rearwardly from the case through the aperture L.

The side walls of the case A are provided with a number of apertures O O, preferably arranged in two horizontal lines, one above the other, the apertures in one series being opposite to the spaces between the apertures in the other series, as shown in Fig. 1. The apertures O O are funnel-shaped, being quite small at the inner surface of the wall of the case A and considerably larger at the outer surface of the wall, so that dust or particles of the fuel or ashes will not readily pass outwardly through these apertures, while the most complete provision for the inwardly-flowing air to supply combustion is made. A damper P, provided with a series of apertures corresponding with the apertures O O, supported movably on lugs Q, rigid on the inner side of the walls of the case A, slides horizontally, and is adapted to open or close or partly close the apertures O O.

A knob R, bearing against the outer surface of the wall of the case, has a shank which passes through a horizontal slot S in the wall, and is fixed rigidly in the damper P, which knob movably holds the upper part of the damper P in position against the inner surface of the wall, and is adapted for sliding the damper horizontally on its supporting-lugs Q Q.

In the cover B a channel T, having an enlarged depression T′ at its rear end, is provided, in which is inserted the tube of a thermometer U, the bulb entering the enlarged part of the channel T′. This thermometer is held in position by the straps V V, and is pro-

vided with a scale W, numbered with such high figures as indicate the sufficient heat for the purposes for which a sad-iron is used, the numberings in the drawings being from 50 to 300, the thermometer being so constructed and adjusted as to correctly indicate such high degrees of heat.

To use this sad-iron, the bolt H is thrown back and the cover B is swung upwardly, and charcoal is placed in the case on the grate, and the cover is then locked down on the case. The charcoal being lighted, the draft or supply of air for combustion is regulated by the damper P, as desired, to increase or diminish the combustion needed to produce the heat required. The amount of heat in the sad-iron can be readily told by an examination of the thermometer in the top of the cover. Whatever ashes are produced will drop down through the grate on the bottom of the case, and by lifting the door M and tilting the sad-iron up at the front the ashes will fall out through the aperture L, and are thus easily disposed of without the inconvenience of having to remove them by a poker or other implement.

What I claim as new, and desire to secure by Letters Patent, is—

In a sad-iron, a hollow case A, having ledges I I integral with its sides at a distance from the bottom, and an aperture L across its rear end opposite to and below the grate, in combination with a grate K, supported movably on the ledges I I, and adapted to be withdrawn from the case rearwardly through the aperture L, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

SARAH WATERMAN.

Witnesses:

C. T. BENEDICT,

O. M. WATERMAN.