J. W. THORP.

Sad Iron Heater.

No. 109,471. Patented Nov. 22, 1870.

Fig 1

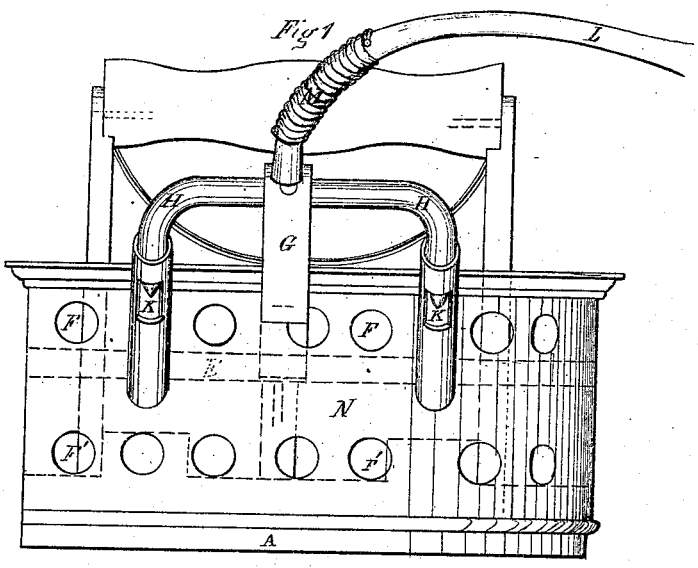


Fig 4

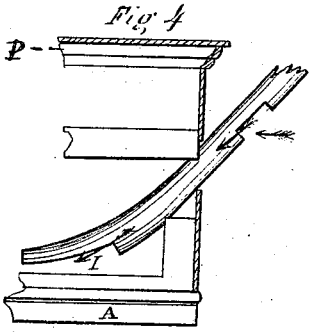


Fig 2

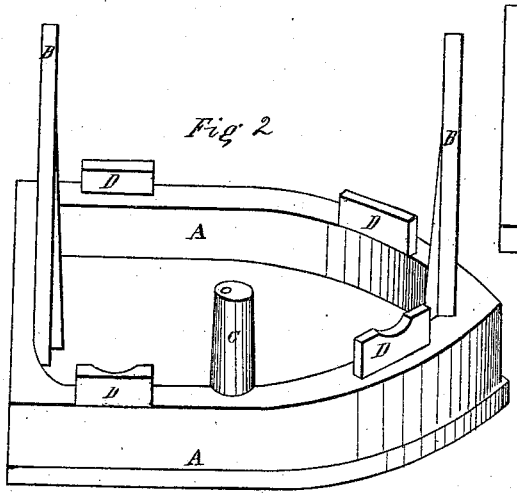
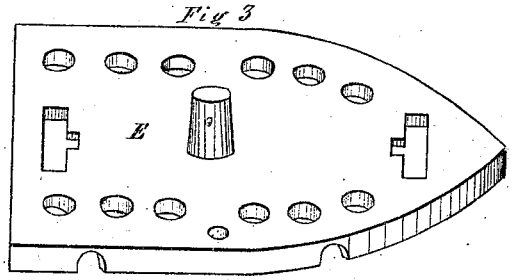


Fig 3



Witnesses

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United States Patent Office.

JOSEPH W. THORP, OF HILLSBOROUGH BRIDGE, ASSIGNOR TO HIMSELF, DAVID F. BROWN, AND ALBERT WEBSTER, OF CONCORD, NEW HAMPSHIRE.

Letters Patent No. 109,471, dated November 22, 1870.

IMPROVEMENT IN SAD-IRON HEATERS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, JOSEPH W. THORP, of Hillsborough Bridge, in the county of Hillsborough and State of New Hampshire, have invented a new and useful Improvement in Heating Sad-Irons; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon.

In the accompanying drawing—

Figure 1 is a side view of my improved sad-iron.

Figure 2 is a view of the bottom or face-plate of my improved iron.

Figure 3 is a view of a perforated plate which divides the iron in two compartments.

Figure 4 shows the position of the burner in relation to the face-plate of the iron.

My invention consists—

First, of an arrangement of one or more gas-tubes provided with air-holes, and also with an oblique-mouthed burner; and

Second, in the combination of such tube or burner with a series of escape-holes at the upper and outer corners of the chamber of the iron.

In the construction of my improved sad-iron, a suitable face-plate, A, fig. 2, is first made with two shanks, B, for attaching the handle, and a stem, C, for supporting the burner.

This plate A also has projections D, for supporting the perforated plate E, fig. 3.

Both of these plates are connected with the jacket N, as seen in fig. 1, the face of the plate A thus forming the face of the complete iron when put together, and the plate E being inclosed in the jacket, as indicated in dotted lines in fig. 1.

An arm, G, is fastened to the stem C, for holding the tube H of the burner.

This tube H has two branches, which enter the jacket N, and extend down nearly to the face-plate A, where they terminate in a broad mouth, made by removing the lower half of the tube, as shown at I, fig. 4.

In the branches of the tubes H there are two openings K, for the admission of air and mixture of the same with gas, supplied by the rubber tube L to the tube H and burners.

This rubber tube is provided with a coiled spring, M, in order to prevent the tube from folding too short over the end of the metallic tube H, with which the rubber connects, and thus stopping the flow of gas.

This coiled spring gives the tube a gentle bend as the position of the sad-iron changes during its use.

The fresh air to feed the burner enters in part at K, fig. 1, and mixing with the gas supplied by the tube H, passes to the mouth I, fig. 4, of the burner, where the flame is directed upon the face-plate A of the iron.

The sheet-iron jacket N has two series of holes, as seen at F and F', fig. 1.

This jacket, in connection with the perforated plate E, fig. 3, serves as a sort of chimney to the burners, admitting more or less air on the lower side in whatever position the iron is turned in working; also allowing the escape of the smoke on the upper side however the iron is turned.

If the iron be working upright, the draught is upward through the plate E and out of the holes F, while some air enters at the lower holes F'; and when the iron is turned on one side or even upside down, the air enters below and escapes above.

The perforated jacket thus facilitates the draught and combustion as the iron is turned in different positions, and also cuts off any excessive current of air and prevents the escape of gas, which would be very offensive.

If, upon further experiment, it is found necessary, one or more vertical partitions may be inserted to further subdivide the chambers of the iron, but at present I prefer the above-described construction.

The top of the iron is made of two plates of sheet metal, with an air-space between them, as seen at P, fig. 4.

Having thus described my invention,

I claim—

1. The tubes H, provided with air-openings K, and also with oblique-mouthed burners, (or burners having a directing shield above the flame,) for the purpose of bringing the flame or flames directly upon both sides of the transverse center of the face-plate of the iron, substantially as set forth.

2. In combination with the above tubes or burner H, the series of escape-holes F or their equivalent, at the top and outer corners of the chamber of the iron, substantially as set forth.

3. The arrangement of the perforated plate E, in combination with the face-plate A and the jacket N, substantially as described.

JOSEPH W. THORP.

Witnesses:

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