

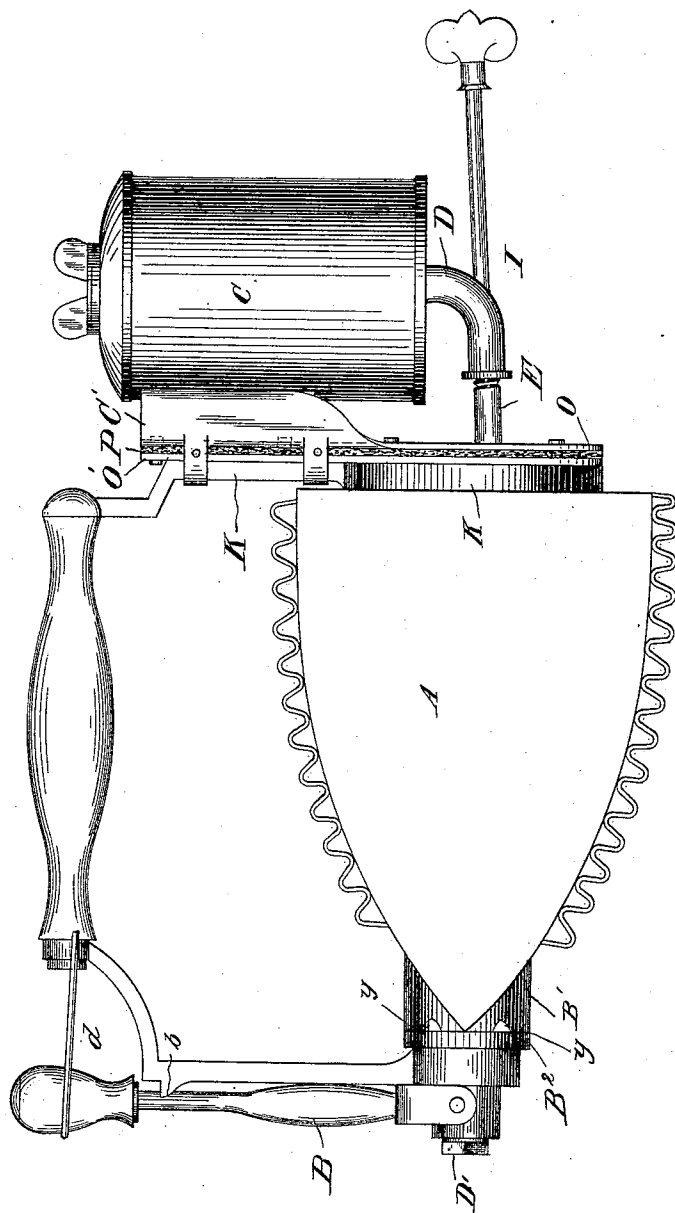
(No Model.)

2 Sheets—Sheet 1.

F. R. SUTTON.
SAD IRON HEATER.

No. 483,878.

Patented Oct. 4, 1892.



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Arthur A. Erb.
Paul F. Perkins

INVENTOR.
Frederick R. Sutton
By His Attorney.
R. A. Winsley

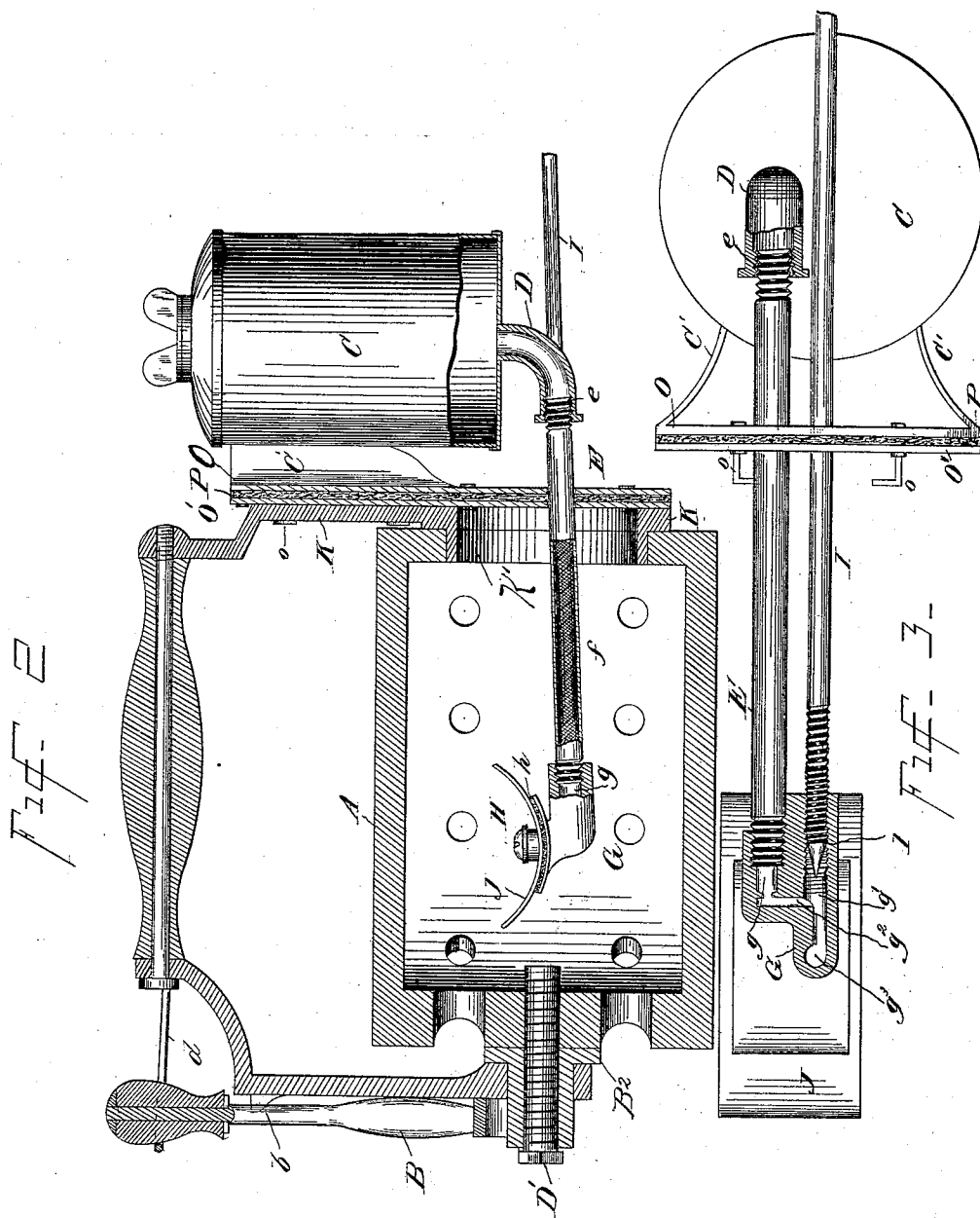
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UNITED STATES PATENT OFFICE.

FREDERICK R. SUTTON, OF LAWRENCE, KANSAS, ASSIGNOR TO MARY SUTTON, OF SAME PLACE.

SAD-IRON HEATER.

SPECIFICATION forming part of Letters Patent No. 483,878, dated October 4, 1892.

Application filed January 23, 1892. Serial No. 419,063. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK R. SUTTON, a citizen of the United States, residing at Lawrence, in the county of Douglas and State of Kansas, have invented certain new and useful Improvements in Sad-Iron Heaters; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to certain new and useful improvements in sad-iron heaters, and is especially designed as an improvement upon the construction shown in Patent No. 173,082, granted to me February 1, 1876.

The invention is illustrated in the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a side elevation of a sad-iron, showing my improved heater applied thereto. Fig. 2 is a vertical longitudinal section of the same, partly in side elevation; and Fig. 3 is a bottom plan view of the heater, partly in section.

Like letters of reference indicate like parts throughout the several views.

A represents the body of a revolving sad-iron constructed as shown in my patent, No. 173,082. At the toe of the iron A is formed a nose-piece B', having four radial grooves formed in its end. Against this nose-piece is placed a flanged sleeve B², having radial ribs *g* on its inner end to fit in the grooves in the nose-piece. On the outer end of the sleeve B² is pivoted the lower forked end of a handle B, which is thrown inward between the two ears *b b* and held by a wire bail *d* or other suitable catch. By releasing the bail *d* and moving the handle B outward the iron may, by said handle, be reversed and fastened again by the handle B and bail *d*, so as to use either face of the iron, it being understood that the sleeve B² is held stationary against the nose-piece by means of the bolt D'.

The iron A is heated by gasoline contained in a reservoir C. An L-bend D connects the reservoir C with the tube E, which conducts the gasoline to the burner. The outer end of this tube E is screw-threaded; but instead of engaging directly with the corresponding screw-thread of the L-bend D the external di-

ameter of the end of the tube is made slightly smaller than the internal diameter of the L-bend, and a packing of asbestos is placed between the end of the tube and the L-bend in order to prevent, as far as possible, conduction of the heat from the burner and from the body of the iron to the reservoir. The tube E is filled with wicking *f*, as shown, to regulate the flow of gasoline to the burner. The inner end of the tube E is also screw-threaded to engage with the corresponding screw-threaded end of the longitudinal passage *g* in the casting G. This casting is provided with a second longitudinal passage *g'*, which is connected by means of the transverse passage *g*² with the passage *g* and conducts the gasoline to the burner H through the passage *g*³. The passage *g'* is screw-threaded for the reception of a needle-valve I, which controls the outlet of the passage *g*² and thereby the flow of gasoline to the burner.

Above the casting G, and separated from it by a layer *h* of asbestos, is placed the reflector J, which is secured to the burner. This reflector concentrates the heat from the burner upon the inner side of the top of the iron, and, in conjunction with the asbestos packing, prevents to a great extent conduction of the heat to and through the casting G and the tube E and radiation upon the inner side of the bottom of the iron.

In the heel of the iron an opening is provided of sufficient size to admit the burner H and casting G. This opening engages a flanged annulus K', formed upon the end of the bail K.

To the reservoir C is attached by means of the wings C' a partition or shield having double walls O O', separated by a layer P of asbestos. The walls of the partition are connected at suitable points in any desired manner, such as by rivets. The tube E and the needle-valve I pass through openings in the lower part of the partition and are supported thereby. Spring-clips *o* are secured to the walls of the partition, and are adapted to engage with the bail K and hold the heater in operative position, so that the double-walled partition or shield will close the opening in the heel of the iron and prevent conduction of the heat to the reservoir C.

It will be seen from the above that while

the bottom of the iron is in use the top is being heated, and that nearly all of the heat of the burner is directed against and concentrated upon the top of the iron, and that
5 when the bottom of the iron has become cool the iron may be reversed by means of the handle B (in the manner described in my former patent) and the opposite side used. The double-walled shield and the packings
10 of asbestos placed at the points indicated form a barrier to the escape of the heat of the iron, and thus reduce the danger of accident from overheating of the gasoline in the reservoir to a minimum.

15 Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

20 The combination, with a sad-iron having an opening in its heel and a bail engaging said heel, of a non-heat-conducting shield sup-

ported by said bail and adapted to close said opening, an oil-reservoir secured to said shield, a two-part oil-conducting tube leading from said reservoir and having an asbestos packing
25 interposed between the sections of the tube, a casting G, having the communicating passages g , g^2 , and g' , the first for the admission of oil and the last adapted to be closed by a needle-valve, the burner H, communicating
30 with passage g^3 , the reflector J, surrounding the burner, and a packing of asbestos between said reflector and casting, substantially as described.

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

FREDERICK R. SUTTON.

Witnesses:

S. W. SUTTON,
ENOS WHITE.