

SELF-HEATING SMOOTHING IRON.

Patented May 23, 1876.



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IMPROVEMENT IN SELF-HEATING SMOOTHING-IRONS.

Specification forming part of Letters Patent No. 177,643, dated May 23, 1876; application filed March 30, 1876.

To all whom it may concern:

Be it known that we, Mrs. MARY P. JACKSON, of Kennet Square, in the county of Chester and State of Pennsylvania, and Mrs. SARAH P. BALL, of Frankford, in the city and county of Philadelphia, and State aforesaid, have invented certain new and useful Improvements in Smoothing-Irons, of which the following is a specification:

The object of our invention is to provide a smoothing-iron of simple and economical construction, which can be heated continuously when in use by gas-flames applied to its interior surface, and be thereby maintained at a suitable and constant heat, obviating the necessity of either changing irons or reheating; to which ends our improvements consist in the combination of an upper and a lower section, an intermediate inclined web of wire-gauze, and a gas-supply pipe resting upon or near the top of the lower section, and provided with a series of burner-openings contiguous thereto, as hereinafter more fully set forth.

In the accompanying drawings, Figure 1 is a vertical longitudinal central section of a smoothing-iron embodying our improvements; and Fig. 2, a horizontal section of the same at the line *xx* of Fig. 1.

In the construction of our improved smoothing-iron, therein shown, an upper section, A, and a lower section, B, are connected by bolts or studs *a* and nuts *a'*. The bolts *a* are screwed into vertical standards *b* on the lower section, which maintain the two sections at such distance apart as may be proper to accommodate the internal heating device, presently to be described. A handle, A', of any suitable material or materials, is attached to the upper section. The two sections are substantially similar in form, the lower being of larger dimensions than the upper, and being arranged relatively thereto, so as to project beyond the latter for a greater distance at the front of the iron than at the back.

A gas-supply pipe, C, is passed through an

opening in the upper section A, and rests upon or near the top of the lower section B, being bent conformably with the outline of the latter, and terminating with a blank or closed end. A suitable nozzle, *c'*, is provided upon the end of the supply-pipe, above the upper section, for the attachment of a flexible tube, C', through which gas is conveyed to the pipe C from a wall-bracket or gas-alier. A series of burner-openings, *e*, either slots or holes, are formed in the pipe C as near as practicable to the lower section B, so as to project the flame thereon. The gas is ignited through an opening, *a''*, in the upper section, provided with a hinged or pivoted cap or cover, *a'''*.

A web of wire-gauze, D, extends from the upper to the lower section, around the iron, so as to completely inclose the space between the two sections, and is inclined outward from the upper to the lower, in correspondence with the difference of their dimensions. The inclination of the wire-gauze web being greater toward the front end of the iron, by reason of the greater projection at that point of the lower section, a forward and upward draft is induced to support the combustion of the gas, as the products of combustion find their readiest escape upon the portions of the web having the greatest inclination. We are thus enabled to provide for supporting combustion and discharging the products without the use of a chimney, by the aid of a medium, which can be conveniently applied, and is of slight weight.

We claim as our invention, and desire to secure by Letters Patent—

1. The combination, with a smoothing iron, composed of the upper and lower sections A B, of the gas-supply pipe C, coiled on the lower section to project the flame on said section, substantially as set forth.

2. The combination, in a smoothing-iron, of the upper section and lower section with intervening space, and an interposed web of

wire-gauze surrounding and inclosing said space, substantially as set forth.

3. The combination, with a smoothing-iron, of a wire-gauze web, having a greater inclination outward toward the front than at the rear of the iron, substantially as set forth.

4. The combination of the upper and lower sections, the interposed wire-gauze web, the gas-supply pipe, having a series of burner-openings, and an opening and cap for the

ignition of the gas, substantially as set forth.

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