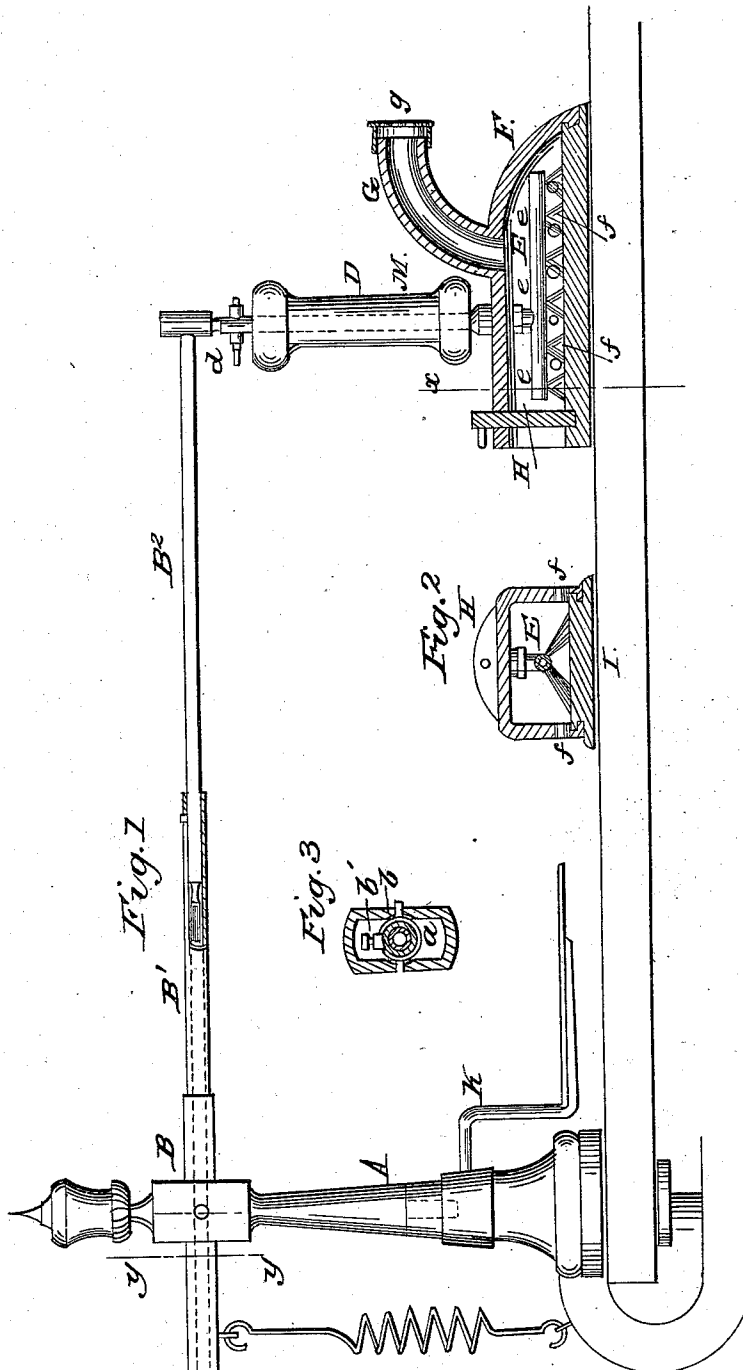


H. C. DREXEL.
Sad Iron Heater.

No. 88,462.

Patented March 30, 1869.



Witnesses
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Letters Patent No. 88,462, dated March 30, 1869.

SAD-IRON HEATER.

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, H. C. DREXEL, of the city and county of Baltimore, and State of Maryland, have invented a new and useful Improvement in Smoothing-Irons; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 represents a general view of my invention, partly in section.

Figure 2 is a transverse vertical section, taken in the line *x x*, fig. 1.

Figure 3 is a transverse sectional view of the telescopic tube, hereinafter referred to, taken in the line *y y*, fig. 1.

The object of my invention is to produce a smoothing-iron, the bottom, or polishing-plate of which may be kept heated to a required given temperature, and to so construct said iron, that said required given temperature may be attained and retained, without radiating the heat upward to such an extent as to cause pain or inconvenience to the hand.

The nature of my invention consists in a peculiar combination and arrangement of parts, whereby the iron may be connected with a common gas-burner, and the object above referred to may be accomplished.

To enable others skilled in the art to which my invention appertains, to make and use the same, I will proceed to describe its construction and operation.

In the drawings—

A represents a standard, attached, by means of a thumb-screw, to a table, (the table being represented by the red lines.)

In a slot in the upper portion of the standard A, works a telescopic metallic tube, formed in three or more sections, B B' B².

The larger section, B, is pivoted in the slot *a*, by means of a universal joint, *b*, allowing it to move in any required direction, the section B passing through said universal joint, and secured by a set-screw, *b'*.

The section B' slides in the section B, and the section B² slides in the section B'.

C is a rubber, or other flexible tubing, one end of which is attached to the section B² of the telescopic tube, and the other end is provided with a thimble, or socket, by which it may be attached to a gas-burner.

The outer end of the section B² is attached, by a ball-and-socket joint, to a tube, D, at the upper end of which is a stop-cock, *d*, and at the lower end is attached, at right angles, another tube, E, which is closed at both ends, but provided with perforations, *e*.

F is the iron, to which the tube D is attached, at its lower end, as shown.

The iron F is provided with a chimney, G, for the escape of the smoke, said chimney being furnished with a wire gauze, or finely-perforated metal cap, *g*, for arresting the escape of flame.

H is a sliding door, in the rear of the iron, through which the gas may be lighted.

The sides of the iron have perforations, *f*, to allow the escape of the heat, after acting upon the bottom plate, and prevent its radiation upward, so as to burn the hand.

The bottom plate, I, is formed with a tongue on its edge, which fits in a corresponding groove in the sides of the iron, by which means it can be readily removed and replaced when desired.

It is held in place in the iron by means of a groove, *i*, with which the lower edge of the door H engages.

S is a spiral spring, connected, at the upper end, to the section B of the telescopic tube, and at the lower end, to the clamp to which the standard A is attached.

K is a platform, or stand, attached to the lower portion of the standard A, upon which the iron may be placed when not in use.

The handle, M, of the iron, is of wood, or other suitable non-conducting substance, and is made hollow, so as to allow the tube D to pass through it.

In using this smoothing-iron, the flexible tubing C is attached to the gas-burner, and the gas turned on, by means of the cock attached to the burner, and the cock *d*, at the upper end of the tube D. The door H is opened, and the gas ignited at the tube E, when the position and direction of the perforations *e* will cause the flame to impinge against the bottom plate I, as shown in red in fig. 2.

In moving the iron over the clothes, the telescopic tube allows of any direction being taken by the iron, the spring S assisting to balance said tube and keep it in proper position.

When it is desired to raise the iron from the clothes, in order to remove or adjust them, the iron is moved back toward the standard A, and placed upon the platform K, the sections B' B² sliding back in the section B.

Having thus described my invention,

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

1. The telescopic tube B B' B², arranged and operating, with relation to a smoothing-iron, substantially as shown and described.
2. The combination of the flexible tubing C, telescopic tube B B' B², and tubes D and E, substantially as shown and described.
3. The perforated, or gauze chimney-cap, *g*, arranged as and for the purpose specified.
4. The iron F, provided with the perforations *f*, sliding door H, and sliding bottom plate I, substantially as shown and described.
5. The combination of the spring S, section B, and standard A, substantially as shown and described.
6. The platform K, arranged as shown and described, for the purpose specified.

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Witnesses:

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