L. W. BOYNTON.

Sad-Iron Heater.

No. 15,165. Patented June 24, 1856.

Fig. 1.

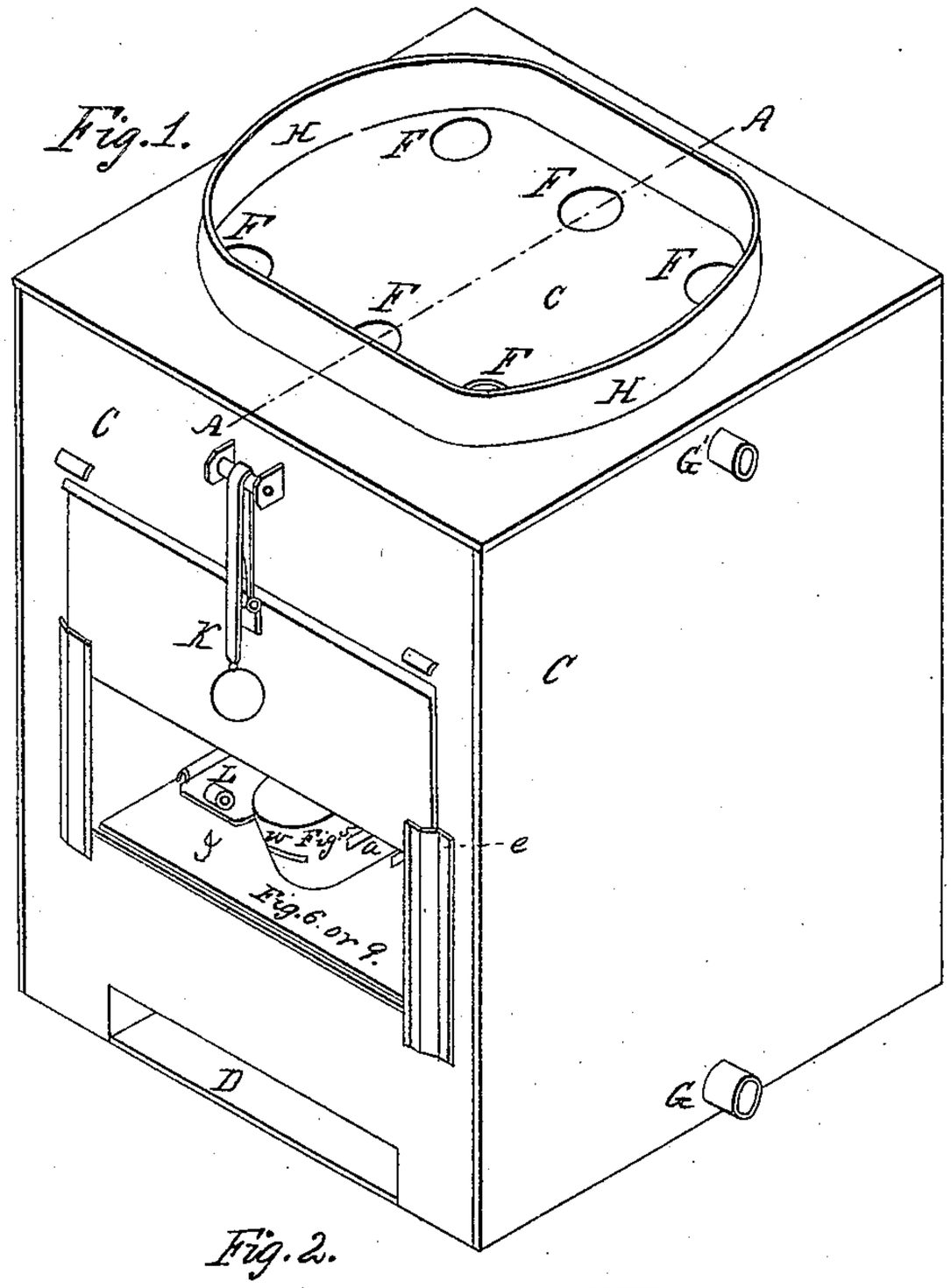


Fig. 2.

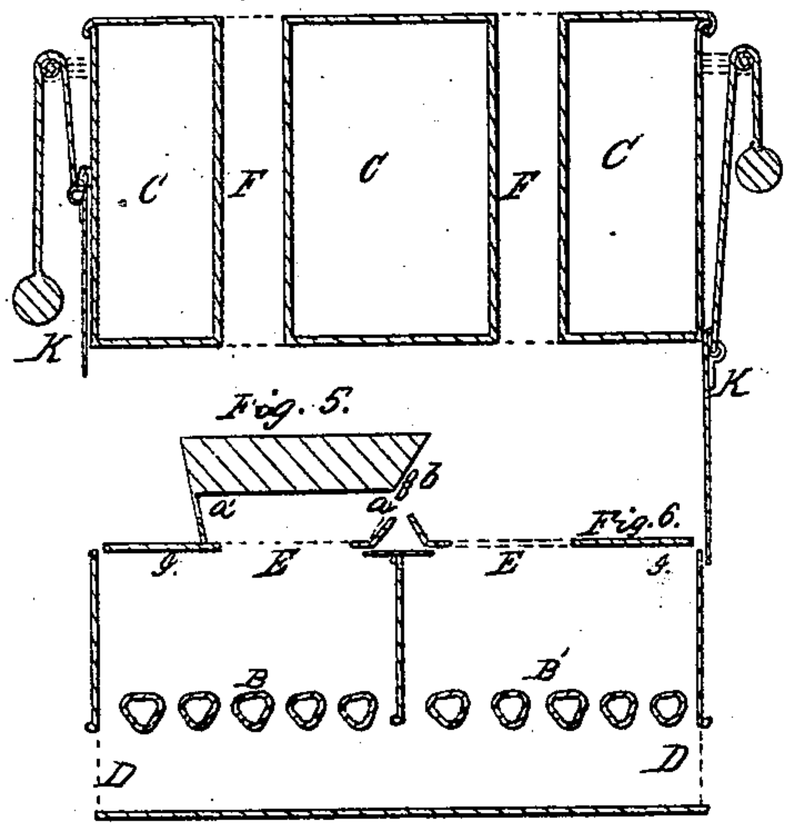


Fig. 7.

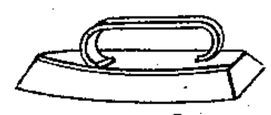


Fig. 8.

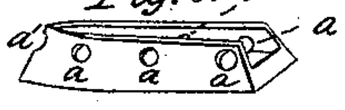


Fig. 3.

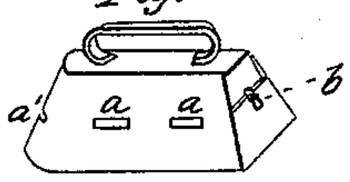


Fig. 4.

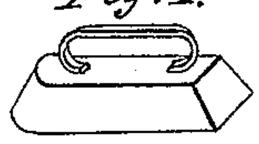


Fig. 5.

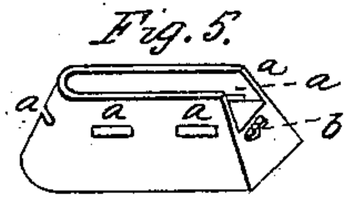


Fig. 6.

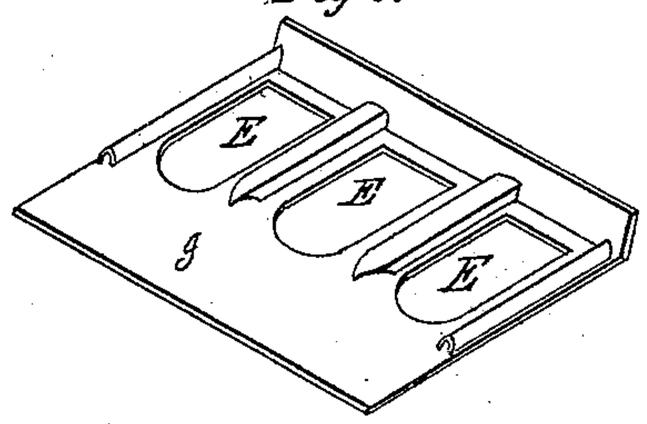
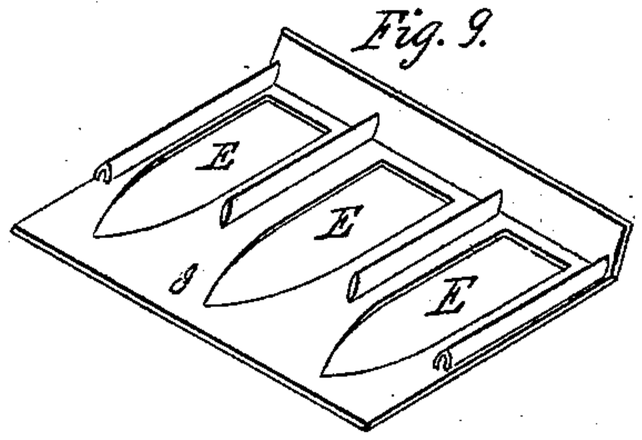


Fig. 9.



UNITED STATES PATENT OFFICE.

LEANDER W. BOYNTON, OF WORCESTER, MASSACHUSETTS.

SMOOTHING-IRON.

Specification of Letters Patent No. 15,165, dated June 24, 1856.

To all whom it may concern:

Be it known that I, LEANDER W. BOYNTON, of the city and county of Worcester and State of Massachusetts, have invented a new and useful Improvement in Smoothing-Irons for Hatters and for other Purposes, and in the Method of Heating Them, &c.; and I do hereby declare that the following is a full, clear, and exact description of the construction, character, and operation of the same, reference being had to the accompanying drawings, which make a part of this specification, in which—

Figure 1 is a perspective view of the apparatus, showing the method of heating the irons, &c. Fig. 2, is a vertical section of the same, (cut through the dotted line A, A, Fig. 1,) showing the hollow grates, the iron, as heating, inside of the boiler, &c. Fig. 3, is a perspective view of the iron as ready for use. Fig. 4, is a perspective view of the upper, or handle, part of the iron which is to be slipped into the main part, (Fig. 5,) when used. Fig. 5, is a perspective view of the main part of the iron, or that part which is to be heated, and the face of which is used in ironing. Fig. 6, is a perspective view of the form, or plate, on which the iron is placed for heating. Fig. 7 is a perspective view of the inner part of the sharp pointed iron, as for family, &c., use. Fig. 8, is a perspective view of the main part of the sharp pointed iron, or the part to be heated. Fig. 9, is a perspective view of the form, or plate, on which the sharp pointed iron is placed to be heated.

My improvement consists in so constructing the iron, in two parts, that the main, or lower part, may be heated, not only without the upper part, but also be heated from its upper side, so that its upper side will be the hottest at the beginning, and therefore it will keep the ironing surface hot much longer than when heated in the usual way. And as the upper, or handle part, is not heated at all by the fire, it will therefore be much more comfortable to the hand while ironing.

I make the main body, or case, of sheet, or cast, metal, in the usual way of making small furnaces with boilers, as shown at C, C, C, Fig. 1 (and all its parts indicated, in section, in Fig. 2,). The hollow grate-bars B, and B′, Fig. 2, are connected with water tables, or legs, at the sides, and these with the main tubular boiler, C, C, C, Figs. 1, and 2, all in the usual way, or otherwise. I kindle the fire on the grates, B, and B′, the draft coming in from below, as at D, and D, Fig. 2, and D, Fig. 1, passing through the grates B, and B′, through the spaces, E, E, &c., Figs. 2, 6, and 9, and tubes F, F, &c., and off through a pipe fitted onto the collar, or flange H, H, Fig. 1, in the usual way. I force the water into the boiler through the pipe, G, Fig. 1, and let out the steam, (when wanted for use,) through the pipe, G′, or other outlet.

To heat the irons, I place the plate, Figs. 6, or Fig. 9, on proper supports above the fire, as indicated at I, Figs. 1, and 2. I then place the main, or lower, part of the iron, Fig. 5, or Fig. 8, inverted, or bottom upward, over one of the spaces, E, E, &c., in the plate, I, Figs. 1, 2, 6, and 9, in the position indicated in Figs. 1 and 2 (as Fig. 5,) when the heated air, &c., from the fire will pass through the spaces, E, E, &c., against the upper portion of this part of the iron, and out through the holes, *a′*, *a*, &c., to the flues, F, F, &c., thus heating the iron from the side opposite the face, so that the face will receive the heat from within, and do much more service at each heating.

To use the iron, I slip a flat piece of iron into the hole at *a′*, to take out the heated iron and turn it over, as seen in Fig. 5, or Fig. 8, when I slip in the upper, or handle, part, Fig. 4, or Fig. 7, and secure it by a button, *b*, as seen in Fig. 3, when it will be ready for use. I make this heating part of the furnace double, as shown at B, and B′, Fig. 2, (to render it more serviceable,) so as to admit a plate like Fig. 6, or Fig. 9, from each side, (and I close these spaces by balanced slides, as seen at K, and K, Fig. 2, and K, Fig. 1, or otherwise,) I make these heating plates of cast iron, with any convenient number of spaces for the irons, as E, E, &c, and when they are not all occupied by irons, I cover the unoccupied spaces with a plain plate, as shown at L, Fig. 1.

I make the iron by casting it in two pieces; one substantially in the form shown in Fig. 5, (or 8,) with a flange, or curb, raised around the margin of its upper surface, (except at the back end;) in which I make several apertures, as seen at *a′*, *a*, &c., in Figs. 1, 3, 5, and 8, to allow the heated air, &c., a free passage while heating the irons, as before described.

I make the other part solid, and substan-

tially, of the shape shown in Fig. 4, (or 7,) to fit within the flange, or curb, of the part shown in Fig. 5, (or Fig. 8,) and I secure the parts together by a button, as shown at *b*, Fig. 3, (or otherwise,) when the iron is complete, and ready for use.

When the irons are intended for common, or household, use, the upper part, Fig. 7, may be cast hollow, to render it lighter without changing the size; (in which case the handle, &c., will be kept cooler.) And, it may be made with a smooth, or ironing, face, so as to be heated, and used, when a small iron is wanted, as is often the case in families and laundries.

The advantages, of my improvement, consist in combining the most expeditious method of heating the irons, with that of retaining the heat the longest, and keeping it of the most even temperature. And, also, in having the handle, and the upper surface, under the handle, always cool and comfortable for use. And in making the irons at less expense, as one handle-part will answer for two or more irons. And, in that the smooth, or ironing, surface is never injured while heating, as it only receives the heat from the inside, (and is therefore with great evenness and regularity,) so that it never comes in contact with the grate bars, coal, or any other grate or form placed over the fire, (by which the surface is often roughened and injured,) so that it may be kept bright and smooth for a much longer time.

And in that it may be used either as set in brick-work, or used independently, by moving it from one part of the shop, or room, to another, at pleasure.

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

Forming the lower part of the iron with side walls projecting above the upper surface thereof, for the double purpose of securing the upper portion to the lower portion, and directing the draft in heating the upper surface of the said lower portion, as herein set forth; it being understood, however, that I do not claim, in itself, the making the iron in two portions with the handle attached to the upper portion, as that is not new, but only the mode of construction as above claimed.

L. W. BOYNTON.

Witnesses:

PHIL A. PINKERMAN,

R. FITZGERALD.