(No Model.)

F. L. BUTTERWORTH.

HATTER'S SHACKLE.

No. 565,104. Patented Aug. 4, 1896.

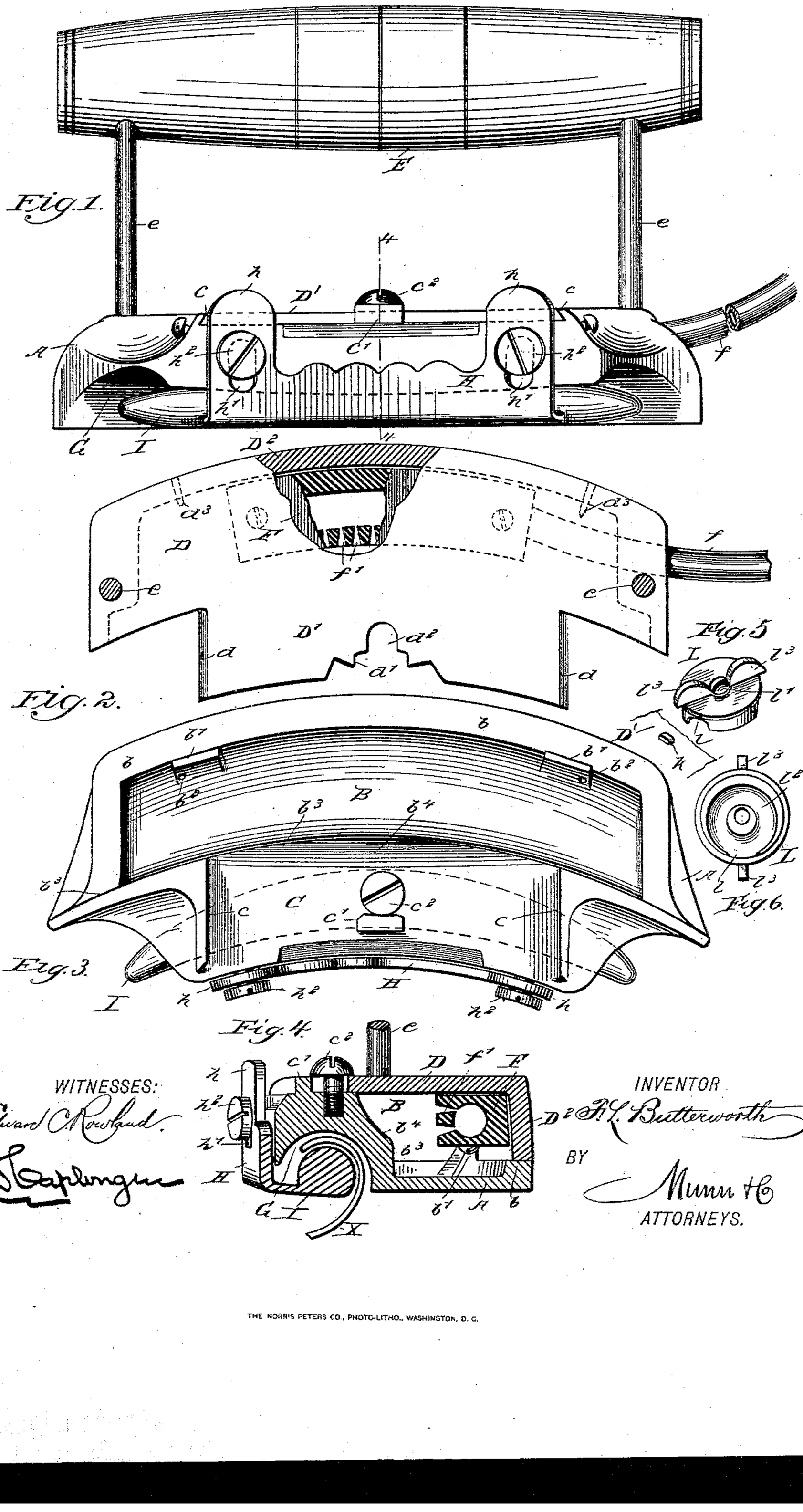

Fig. 1.

Fig. 2.

Fig. 3.

Fig. 5.

Fig. 6.

Fig. 4.

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HATTER'S SHACKLE.

SPECIFICATION forming part of Letters Patent No. 565,104, dated August 4, 1896.

Application filed May 21, 1895. Serial No. 550,071. (No model.)

To all whom it may concern:

Be it known that I, FRANK L. BUTTERWORTH, of Newark, in the county of Essex and State of New Jersey, have invented a new and Improved Hatter's Shackle, of which the following is a full, clear, and exact description.

This inventon relates to that class of devices commonly known as "shackles" employed by hatters for curling and ironing the curls of hats; and the object of the invention is to provide a device of this nature of a simple and convenient construction adapted to be heated by gas or hydrocarbon vapor from a suitable fuel supply, whereby the necessity of repeatedly reheating is avoided.

The invention consists in a device of this character comprising a frame carrying a handle and a burner, and a removable ironing-block adapted for attachment to the frame in a position to be heated by the flame from the burner, whereby the block may be readily and conveniently removed from the frame in order that different styles or shapes of brims may be conveniently ironed by merely substituting different blocks in place on the same frame.

The invention also contemplates certain features of construction whereby certain important advantages are obtained, all as hereinafter fully set forth.

The novel features of the invention will be carefully defined in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the views.

Figure 1 is a side view of the shackle constructed according to my invention. Fig. 2 is a plan view of the frame thereof, the handle and a part of the top plate being removed in order to illustrate the parts below. Fig. 3 is a plan view of the curling-block adapted for attachment to the frame. Fig. 4 is a transverse section taken through the shackle shown in Fig. 1 substantially on the plane indicated by the line 4 4 in said figure. Fig. 5 is a perspective detail view showing a modified form of the device for securing the curling-block and frame together, and Fig. 6 is an under side plan view of the eccentric employed in said modified construction. These views will be hereinafter referred to.

In the figures, A represents the curling-block provided with a flattened under surface and having a longitudinal hollow B formed in its upper surface at one side, said hollow being surrounded on its outer side and at its ends by a raised ledge or rib b and on its inner side by a similar rib or ledge b^3 of greater height than the ledge b and having at its center an inclined portion b^4, as clearly seen in Figs. 3 and 4.

The block A is provided at its side opposite to the hollow B with a transverse guideway C, having at its opposite sides dovetailed guides c and provided at its center with a guide-block c' and a set-screw c^2, alined therewith. This guideway C is adapted to receive a projecting part D′ of the frame D, said part D′ being provided with inclined side edges d, adapted to engage the guides c at opposite sides of the guideway C and having at its center an opening d' to receive the guide-block c', and a slot d^2, alined with said opening d' and adapted to receive the set-screw c^2.

The opposite side of the frame D is provided with a depending flange D^2, the lower edge of which is adapted to rest on the rib b, surrounding the hollow B, and in order to guide the said flange D^2, I provide in the hollow B, at opposite ends thereof, two stops or posts b', projecting above the rib b and provided with openings b^2, extending through them in position to be engaged by pins d^3, secured to and projecting from the inner sides of said flange D^2.

The frame D is provided with a handle E, of wood or similar non-conducting material, supported on posts e, as clearly seen, and on its under side inside the flange D^2 and in position to engage and enter the hollow B in the block A is secured a burner F, adapted to be supplied with gas or vapor by a tube f, extending from the end of the frame, as indicated in Figs. 1 and 2, and adapted to be connected with a suitable gas supply.

The burner F is provided with jet-apertures f', which are made conical or tapered from their outer ends inward, and these apertures are located on the side of the burner facing

the inclined central part b^4 of the vertical inner wall b^3 of the hollow B.

At its inner edge the block A is provided in its bottom with a longitudinal curved groove G, shaped to conform to the curl which it is desired to impart to the hat-brim, and adapted to receive said brim, as seen in Fig. 4, the under side of said brim X being engaged by a block I, mounted on a bracket-piece H, having at its ends vertical posts or projections h, provided with slots h' to be engaged by screws h^2, secured on the inner side of the block A, as clearly seen. By this construction the block I may be adjusted within the groove or recess G, so as to stand in the proper position.

When it is desired to remove the block A from the frame, the screw c^2 is loosened and said block A is slid laterally of the frame, so as to disengage the projecting part D′ of the frame from the guideways c, after which a block A of different form may be inserted and clamped to the frame. The burner F being arranged directly opposite to the inner wall of the recess or hollow B, and its jet-openings f' being directed against said inner wall, it is evident that the heat from said burner will be directed toward that side of the block A where the recess or groove G is formed, and may be diffused along the length of the said wall b^3 in such a way as to heat the groove G substantially along its entire length. As the groove G, in common with the block A, is curved slightly longitudinally, I also prefer to form the burner F slightly curved, as indicated in Fig. 2. By this construction, when the proper block A has once been inserted in the frame it is not necessary to remove the said block for reheating it, and, moreover, by controlling the supply of gas to the burner F in any ordinary well-known way the degree of heat imparted to the said block may be conveniently regulated.

In lieu of the screw c^2 I may employ the eccentric device shown in Figs. 5 and 6 for securing the curling-block A and frame together. In this form of the device the part D′ of the frame D is provided near its front edge with a projection k, adapted to enter an opening l, formed in one side of an eccentric-block L, pivoted on a screw l' on the curling-block A and provided in its under side with an eccentric-groove l^2, adapted to receive the projection k. When said projection has been passed through the perforation l in the block L into the eccentric-groove l^2, said block L may be turned, being provided with wings l^3 on its upper face to be engaged by the fingers, so as to securely clamp the parts together.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A hatter's shackle, comprising a curling-block having a longitudinal recess in its upper surface at one side, and a longitudinal curved groove in one edge to receive the hat-brim, and a frame detachably secured to the curling-block over the recess thereof and forming therewith a chamber, said frame being provided with a burner projecting into the recess of the said block, substantially as described.

2. A hatter's shackle, comprising a curling-block having a hollow formed longitudinally at one side of its upper portion, and provided at the opposite side of its lower portion with a longitudinal groove to receive the hat-brim, and having a guideway formed transversely across its upper portion, and a frame having a handle and provided with a projecting portion adapted to engage the guideway in the block, said frame being adapted to close the hollow in the upper part of the block and being provided with a burner secured to its under side and adapted to enter said hollow in the block when the frame is in place, substantially as set forth.

3. A hatter's shackle, comprising a curling-block having a longitudinal groove in its lower part at one side thereof and adapted to receive the hat-brim, said curling-block having at the opposite side of its upper portion a hollow extending longitudinally thereof and having a longitudinal rib or ledge at its inner side, a frame adapted to close said hollow in the upper portion of the curling-block, and a burner carried by said frame and provided with a gas-supply pipe, said burner being adapted to enter the hollow in the curling-block when the frame is in place and having jet-openings in that side adjacent to the longitudinal rib or ledge of the curling-block, substantially as set forth.

4. In a hatter's shackle, the combination of a curling-block provided with a longitudinal recess in its upper face at one side, a transverse guideway on the side opposite the recess and a longitudinal curved groove on its lower side to receive the hat-brim, a frame fitting over the recess of the curling-block and provided with a projection fitting in the guideway of the curling-block, and means for detachably securing the frame and curling-block together, substantially as described.

5. In a hatter's shackle, the combination of a curling-block provided with a longitudinal recess in its upper face at one side, a longitudinal curved groove to receive the hat-brim, and a transverse guideway on the side opposite the recess, said guideway having dovetail sides and a central guide-block, a frame provided with a depending flange and a projection, said projection having beveled edges and provided with an opening at the center of its edge and with a slot alining said opening, and a set-screw for securing the frame to the block, substantially as described.

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