

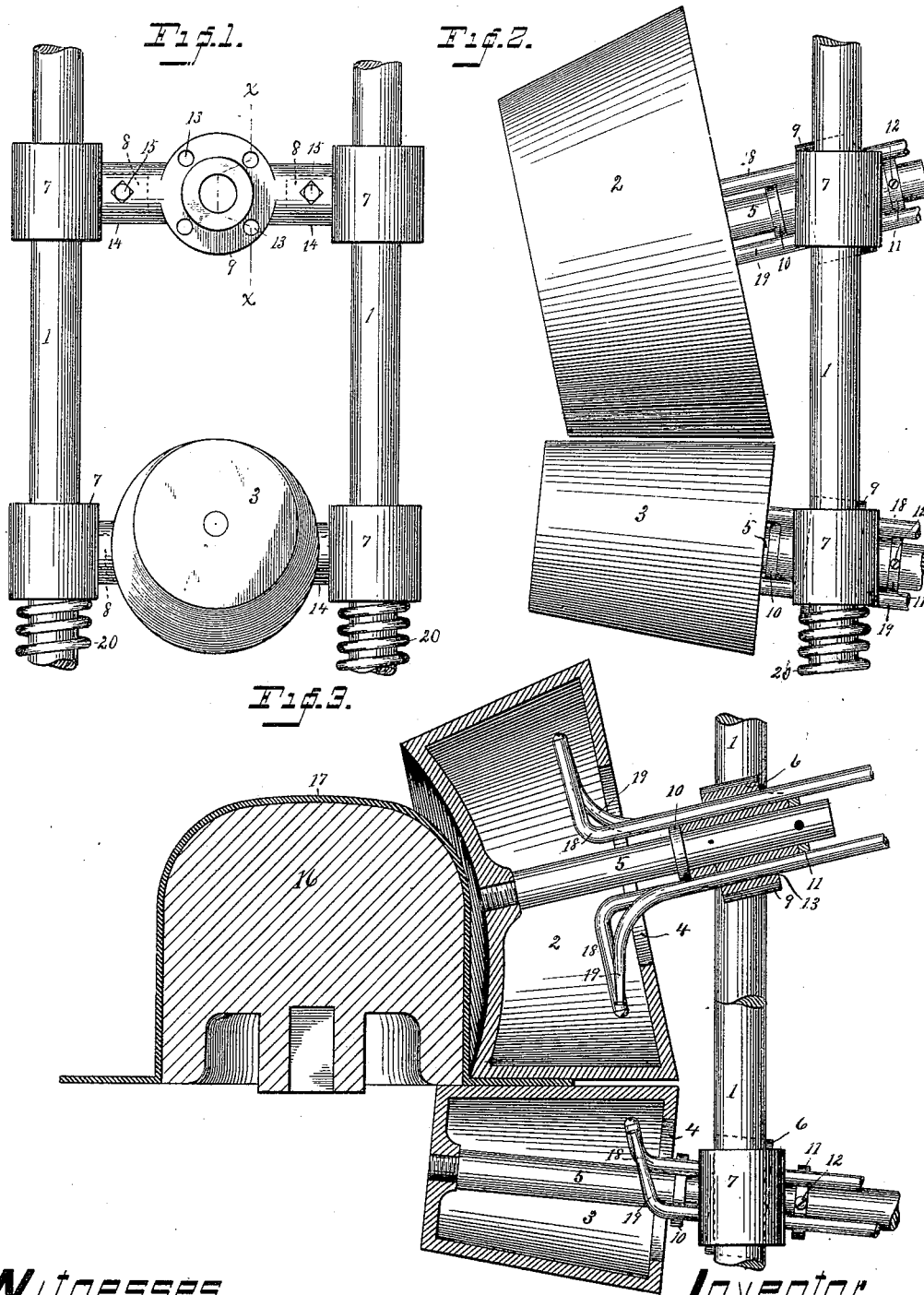
(No Model.)

J. B. HOWE.

MECHANISM FOR IRONING HAT BRIMS.

No. 419,255.

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UNITED STATES PATENT OFFICE.

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MECHANISM FOR IRONING HAT-BRIMS.

SPECIFICATION forming part of Letters Patent No. 419,255, dated January 14, 1890.

Application filed March 29, 1889. Serial No. 305,264. (No model.)

To all whom it may concern:

Be it known that I, JOHN B. HOWE, a citizen of the United States, residing at Danbury, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Mechanism for Ironing Hat-Brims; 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 has for its object to produce novel mechanism for ironing both sides of a hat-brim simultaneously. Heretofore, so far as I am aware, this operation has been performed by hand, there having been no mechanism produced capable of performing the operation in a satisfactory manner, it being essential that both surfaces of the brim should be ironed evenly and clear up to the body of the hat. In order to accomplish this result, I have devised the novel mechanism of which the following description, in connection with the accompanying drawings, is a specification, numbers being used to denote the several parts.

Figure 1 is a front elevation of my novel mechanism with the upper shell removed; Fig. 2, a side elevation, both shells being in operative position; and Fig. 3 is a section of the upper and lower shells, the carrier for the upper shell, and a block with a hat thereon, the parts being all in operative position, one of the supporting-rods being broken away and the lower carrier in elevation, as in Fig. 2, the section-line of the upper carrier being indicated by *x x* in Fig. 1.

1 denotes supporting-rods, which in practice form a portion of a sliding frame which is adapted to be moved toward or from the hat-brim. As this frame forms no portion of my present invention I have merely illustrated the rods by which the ironing-shells are carried.

2 denotes the upper shell, and 3 the lower shell. The essential feature of these shells is that they are hollow and are provided with openings 4 at the back. Each shell is carried by a shaft 5, to which it is attached in any suitable manner. I ordinarily form a screw-thread at the end of the shaft, and a threaded

opening at the center of the forward end of the shell to correspond therewith, as shown in Fig. 3. Each of the shafts is journaled in a carrier 6, so constructed as to permit the shell to be raised and lowered, and also to be oscillated in the vertical plane. These carriers in practice I ordinarily construct substantially as follows: 7 denotes collars which slide freely on the supporting-rods, each collar being provided with an inwardly-extending stump 8. (Shown in dotted lines in Fig. 1.) 9 denotes a hub through which the shaft passes, each shaft being provided with a fixed collar 10 and a movable collar 11, held in place by a set-screw 12, whereby each shaft is locked in position in the corresponding hub. 13 denotes openings in the hub through which pipes pass to admit air and gas to the shell. 14 denotes arms which engage stumps 8 upon the collars, turning freely thereon. 15 denotes set-screws passing through the arms and engaging the stumps, whereby the hubs are locked in position after the shells have been adjusted. 16 denotes an ordinary hat-block, and 17 a hat thereon.

In practice the hat-block and hat are carried by any suitable lathe mechanism, which, however, I have not illustrated, as the special mechanism forms no portion of my present invention.

I do not desire to limit myself to any special shape of ironing-shells, although it is essential that the shell be so shaped and the machine be so organized as to permit the upper shell to fit closely in the angle between the body and brim of the hat in order that the brim may be ironed clear up to the body. In order to accomplish this result, I have shown the forward end of the upper shell as made concave, so as to allow a portion of the crown of the hat to enter the depression and to cause the edge of the shell to engage the angle at the intersection of the brim and crown.

It will of course be understood that in practice the hat-block and hat are rotated continuously, in addition to which I rotate either or both of the shells, if found desirable. This of course will depend entirely upon the style, quality, and thickness of the hats that are being operated upon. In the present instance I

have shown the upper shell as of much greater diameter than the lower shell, the upper shell not being provided with means for imparting rotation thereto. The shaft of the lower shell is broken away to indicate that it is continued outward in order to apply power thereto.

The shells are heated by a gas-flame, the gas being conducted to the interior of the shells by means of pipes 18.

19 denotes pipes through which air is supplied to the burners, either with or without a blast apparatus, which forms no portion of my present invention, and therefore has not been illustrated.

In practice the lower carrier and cone may be rigidly locked to the supporting-rods by set-screws, (not shown,) or, if preferred, the collars may rest upon springs 20, surrounding said rods.

In practice the upper and lower rollers are adjusted at the proper angle relatively to each other by means of set-screws 15.

When not in use, the supporting-rods are moved backward away from the block-supporting or lathe mechanism, which I have not shown. In use, having placed the block with a hat upon it upon the lathe mechanism, the supporting-rods and the shells are moved into operative position, as in Fig. 3.

In moving the parts into position the upper carrier and shell are raised sufficiently to permit the brim of the hat to pass between the shells, after which the upper shell is allowed to rest upon the brim, the projecting angle at the front edge of the shell engaging the angle at the intersection of the brim with the body of the hat. It will be noticed that the lower shell is shown as longer than the upper shell. This is in order that the edge of the block itself may rest upon the lower shell, so as to give firm support for the entire surface of the brim while it is being ironed, and to insure that the brim is ironed clear to the crown. The gas and air connections are of course flexible. For this purpose I use ordinary flexible tubing.

As flexible connections are old for various purposes, I have not deemed it necessary to illustrate them in the present instance.

It will of course be understood that the details of construction may be greatly varied without departing from the principle of my invention.

I claim—

1. An apparatus for ironing both sides of a hat-brim simultaneously, consisting of a pair of rotary shells closed at the front end and having openings at the rear end and suitable gas-connections passing through said

openings, the front end of the upper shell being made concave to receive the crown of the hat, so that both sides of the brim may be ironed to the crown.

2. In an apparatus for ironing the brims of hats, the combination, with a pair of hollow shells closed at the front end and having openings at the rear end, the front end of the upper shell being made concave, as shown, of shafts by which said shells are carried, gas-connections by which the shells are heated, and vertically-movable carriers in which the shafts are journaled.

3. The combination, with a pair of hollow shells open at the back, shafts therefor, and gas-connections passing into said shells through said openings, of a pair of supporting-rods, collars adapted to slide on said rods and having inwardly-extending stumps, and hubs in which the shafts are journaled, and which are provided with arms engaging said stumps and turning freely thereon to permit oscillation of the shells in the vertical plane.

4. The hollow shells open at the back and having shafts secured at the forward ends thereof, in combination with vertically-movable carriers having hubs adapted to oscillate in the vertical plane in which said shafts are journaled, and gas and air connections which pass into the shells through said openings, whereby they are heated in use.

5. In combination, a pair of hollow shells having openings at the back, shafts therefor passing through said openings and engaging the forward ends of the shells, and gas-connections also passing through said openings, whereby the shells are heated in use.

6. In combination, a pair of hollow shells open at the back, shafts therefor passing through said openings and attached to the forward ends of the shells, gas-connections also passing through said openings, whereby the shells are heated, and vertically-movable carriers having hubs in which said shafts are journaled, and which are adapted to oscillate in the vertical plane.

7. In a machine of the class described, the combination, with a pair of ironing-shells closed at the front and open at the back, the front end of the upper shell being concaved for the purpose set forth, of shafts by which said shells are carried.

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

JOHN B. HOWE.

Witnesses:

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NORMAN HODGE.