Giles. Halladay and. Rue,
Pressing Hats.

No. 37255. Patented. Dec. 23. 1862.

Fig. 2.

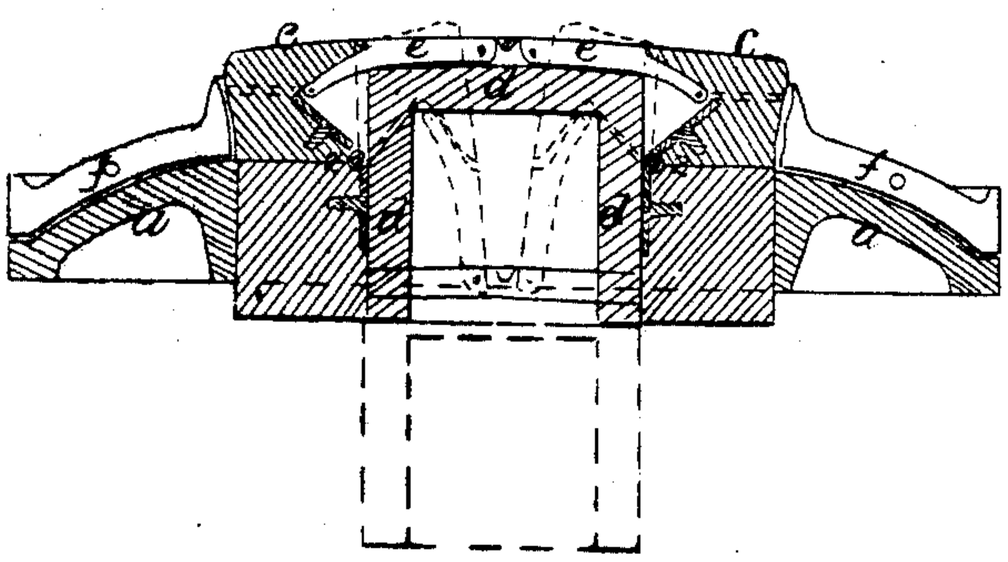


Fig. 3.

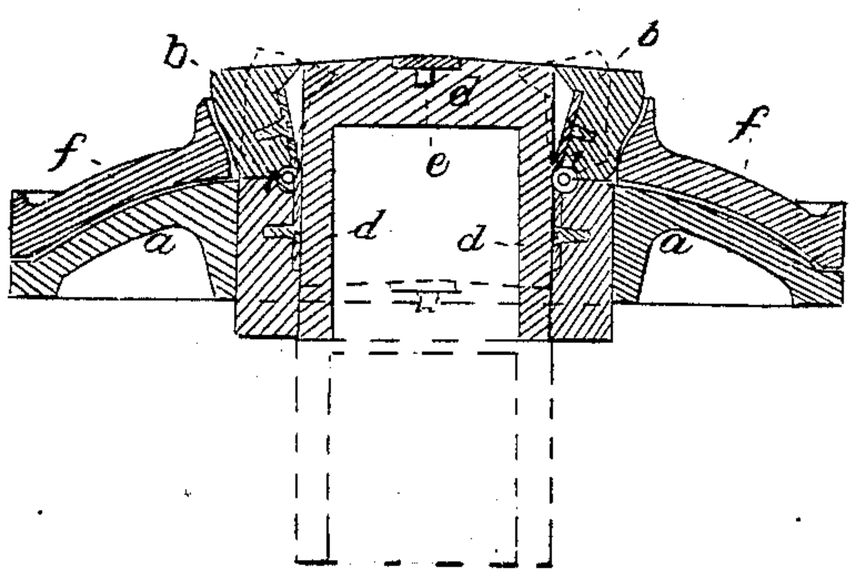
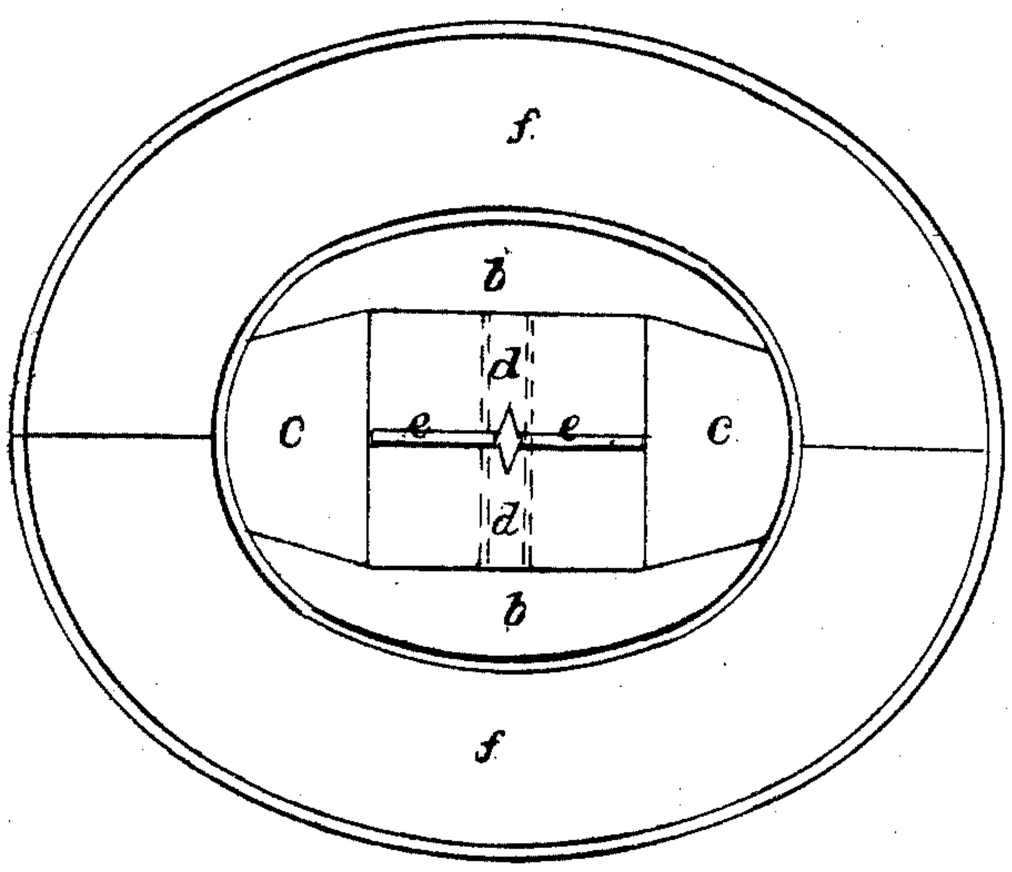


Fig. 1.



Witnesses.

John L. Giles
Wm Halladay
John W. Rue
per Lemuel W. Serrell
Atty

Thos. Geo Harrold

Chas. H. Smith

UNITED STATES PATENT OFFICE.

JOHN S. GILES, WILLIAM HALLADAY, OF NEW YORK, AND JOHN A. RUE, OF BROOKLYN, N. Y., ASSIGNOR TO JNO. S. GILES AND WILLIAM HALLADAY, AFORESAID.

IMPROVEMENT IN APPARATUS FOR PRESSING HATS.

Specification forming part of Letters Patent No. **37,255,** dated December 23, 1862.

To all whom it may concern:

Be it known that we, JOHN S. GILES and WILLIAM HALLADAY, of the city and State of New York, and JOHN A. RUE, of Brooklyn, in the county of Kings and State of New York, have invented, made, and applied to use a certain new and useful Improvement in Apparatus for Pressing Hats; and we do hereby declare the following to be a full, clear, and exact description of our said invention, reference being had to the annexed drawings, making part of this specification, wherein—

Figure 1 is a plan of our improved hat-dies. Fig. 2 is a vertical longitudinal section, and Fig. 3 is a cross-section.

Similar marks of reference denote the same parts.

Our said invention consists in an expanding heated die adapted to press hats and bloomers with a flaring or bell crown out of one piece or sheet of material, or for pressing such a bloomer or hat when composed of several pieces of material sewed together.

In the drawings, *a* is a stationary brim-die of the desired size and shape. The crown-die is composed of the side pieces, *b b*, hinged as at 1 1, Fig. 3, the front and back pieces, *c c*, hinged as at 2 2, Fig. 2, and the central plunger or tip block, *d*. This block *d* is made hollow, and receives within it the movable iron, by which the crown-dies are heated by conduction and radiation, and this central block, *d*, is fitted to slide up and down, and is to be actuated by a treadle or other convenient mechanism.

e e are toggle-joint bars connecting the blocks *c c* with the block *d*, as seen in Figs. 1 and 2, and these are let into grooves in said block *d*, and when the block *d* is drawn down, these bars *e e* draw the blocks *c c* inward, swinging them on their hinges 2 2, and the divisions between the blocks *c c* and *b b* are diagonal, as shown, so that space is left when the blocks *c c* are drawn inward for the blocks *b b* to swing on their hinges 1 1. Thus the crown-block can be drawn in or contracted sufficient to compensate for the flaring or bell-shape of the crown in order that the pressed hat may be easily removed. (See red lines.) The dies being contracted as aforesaid, the operator takes the hat to be pressed, or the sheet of material, places it over the die, brings down upon it a rim-piece, *f*, by suitable mechanism, and then expands the crown-blocks by pressing up the block *d*, which operation stretches the bell-crown shape in the hat or bloomer, and makes the surface of the crown-die even and regular, upon which the hat or bloomer is pressed and dried by the heat imparted from the bolt or heater in the block *d*. When the bloomer or hat is pressed, the rim-piece is removed by separating the two halves thereof, in order to pass over the bell-crown, the block *d* is drawn down, the hat taken off, and the parts are ready for operation as before.

Heaters may be applied to the brim-die *a* and piece *f*, if desired.

What we claim, and desire to secure by Letters Patent, is—

The block *d*, fitted to slide vertically, in combination with the hinged blocks *c c* and *b b*, and forming the crown-die for pressing flaring or bell-crowned hats or bloomers, substantially as specified.

In witness whereof we have hereunto set our signatures this 22d day of August, 1862.

JOHN S. GILES.
WM. HALLADAY.
JOHN A. RUE.

Witnesses to signature of John S. Giles:
S. R. CROCKER,
CHAS. H. SMITH.

Witnesses to signatures of Halladay and Rue:
LEMUEL W. SERRELL,
THOS. GEO. HAROLD.