

# Congdon & Mowry, Pressing Hats.

No. 45,588.

Patented, Dec. 27, 1864.

Fig. 2.

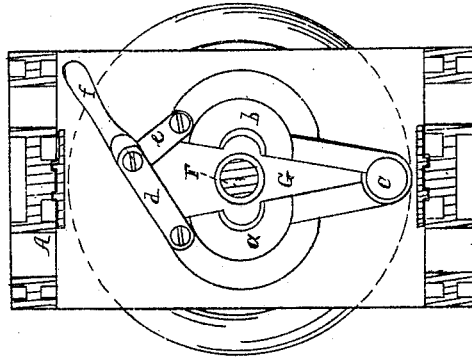


Fig. 3.

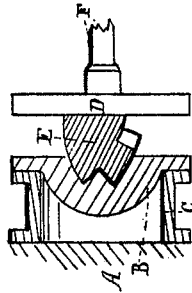
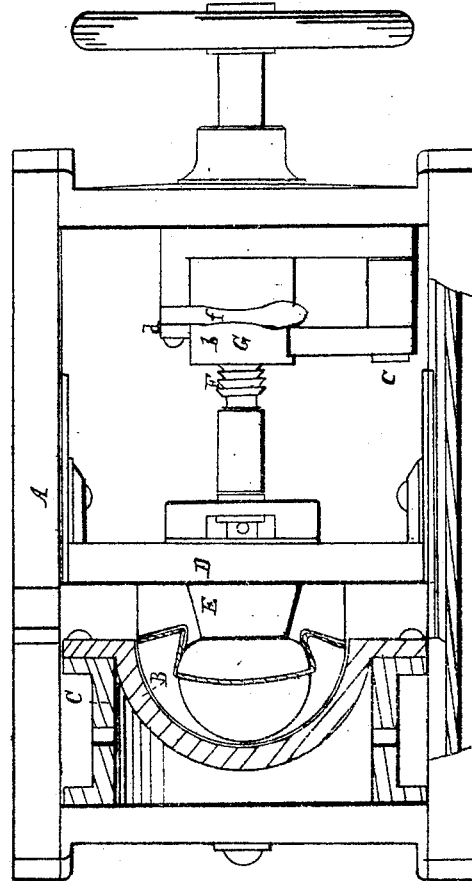


Fig. 4.



Witnesses:  
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att'y

# UNITED STATES PATENT OFFICE.

SAMUEL G. CONGDON, OF MANSFIELD, AND DANIEL C. MOWRY, OF  
MILFORD, MASSACHUSETTS.

## IMPROVEMENT IN MACHINES FOR PRESSING HATS.

Specification forming part of Letters Patent No. **45,588**, dated December 27, 1864; antedated  
September 24, 1864.

*To all whom it may concern:*

Be it known that we, SAMUEL G. CONGDON, of Mansfield, in the county of Bristol and State of Massachusetts, and DANIEL C. MOWRY, of Milford, in the county of Worcester and State of Massachusetts, have invented a new and Improved Machine for Pressing Hats; and we do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 represents a longitudinal vertical section of this invention. Fig. 2 is a transverse vertical section of the same, the line *x x*, Fig. 1, indicating the plane of section. Fig. 3 is a horizontal section of the die, taken in the plane indicated by the line *y y*, Fig. 1.

Similar letters of reference indicate corresponding parts.

This invention relates to a machine in which each hat is pressed by two operations, one-half at a time, with solid or non-expansible dies, in such a manner that the same serves to press bell-crowned and other hats. The male die used in this operation is made of wood, so that the same, when applied in combination with a steam-die, will absorb moisture from the material of which the hat is formed, and by its forward motion in the die will produce the gloss, which cannot be obtained by the use of an expansion-die. In order to save time in working the screw-spindle which serves to impart motion to the male die, said spindle passes through a clutch-nut, which can be readily thrown open in order to allow of moving the die by hand.

A represents a frame, of cast-iron or any other suitable material of sufficient strength and durability for the occasion. One end of this frame is occupied by the female die B, which is screwed tight to the end of the steam-chamber C, so that it can be heated conveniently with steam in the ordinary manner, (not shown in the drawings, but may be by a steam-induction pipe communicating with the interior of the die and a cock for the discharge of the water of condensation.)

D is the follower, to which the male die E is rigidly attached. This follower is guided

in suitable ways in the top and bottom plates of the frame A, and it is operated by a screw-spindle, F, which is connected to it in such a manner that said spindle can be turned independent of the follower, but both are compelled to move simultaneously in a longitudinal direction.

The screw-spindle passes freely through a hole in the end piece of the frame A, and it is fitted into a clamp-nut, G, which is composed of two jaws, *a b*, as clearly shown in Fig. 2 of the drawings. These two jaws are provided with shanks, which are hinged to the stud *c*, and the upper or loose ends of the same are connected by toggle-arms *d e*, which are operated by a hand-lever, *f*, so that the jaws can be opened or closed at pleasure. When the jaws are closed, the arm *d* covers the arm *e*, and as long as the two arms remain in this position the nut is prevented from opening spontaneously. By turning the lever up to the position shown in Fig. 2 the jaws are thrown open, and the screw-spindle is allowed to pass freely through the nut. By this arrangement the follower with the male die can be readily moved up to or off from the female die without turning the screw, and much time is saved.

The dies B and E are placed edgewise, so that first one and then the other half of the hat is pressed, as clearly shown in Fig. 3, where the hat is shown in red outlines. By this arrangement of the dies we are enabled to press bell-crowned or any other kinds of hats without the use of an expansion-die, and the operation of pressing can be performed quick and without loss of time.

The male die E is made of a block of wood, which is fastened to the follower, and which may or may not be covered with cloth, felt, or other absorbent and yielding material.

We use a wooden block, by preference, because the wood is capable of absorbing moisture from the material of which the hat is being formed, and as the hat is forced into the die a gloss is imparted to it, which cannot be produced by the expansion-die.

By this machine the operation of pressing hats is considerably facilitated, and work of superior quality can be produced with comparatively little labor or loss of time.

We claim as new and desire to secure by Letters Patent—

1. The use, in a machine for pressing hats, of two dies placed edgewise toward each other, substantially in the manner and for the purpose herein shown and described.

2. The clamp-nut G, with toggle-arms *d e* and hand-lever *f*, applied, in combination with the screw-spindle F, follower D, and die E, in the manner and for the purpose set forth.

3. The use of a wooden block, E, in combination with a steam-die, B, constructed and operating substantially as and for the purpose specified.

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