

HAT-BLOCKING MACHINE.

Patented Jan. 4, 1876.

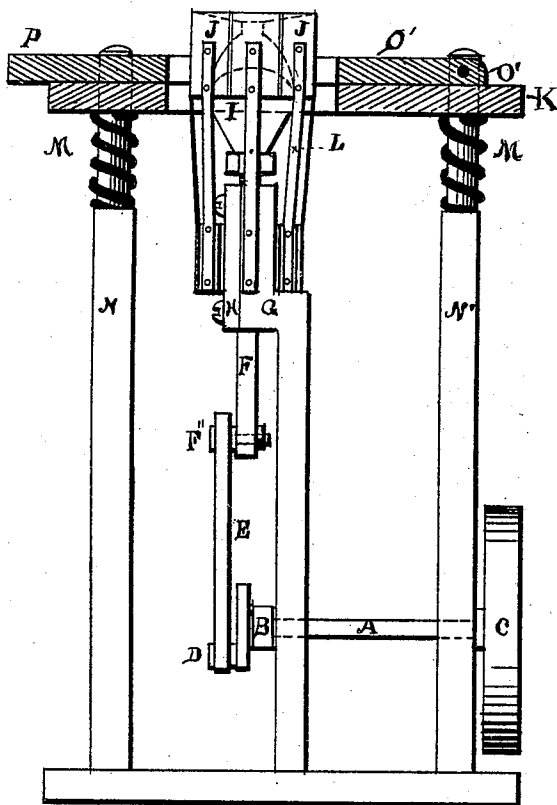


Fig 1

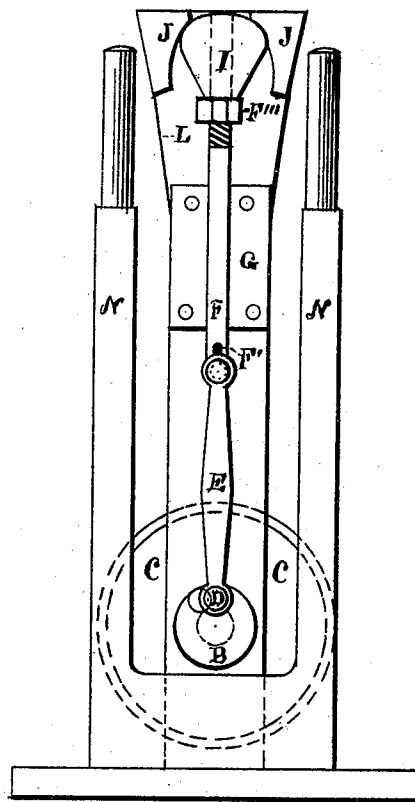
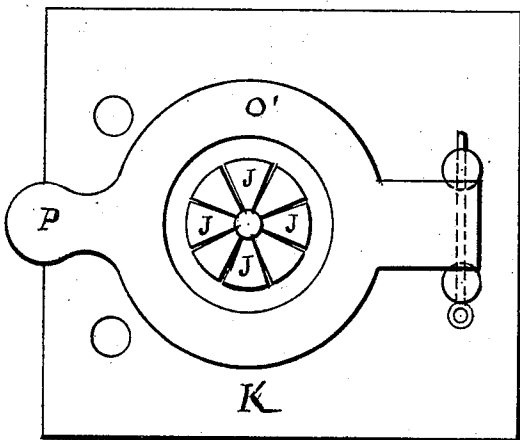


Fig 2



3 25 27

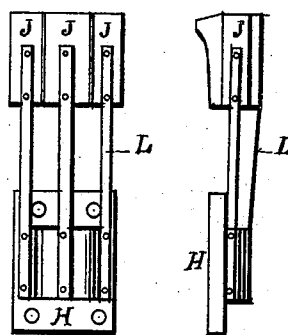


Fig 4

Witnesses
F. Pierce Hummel
F. B. Ruler

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Henry A Graeff
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UNITED STATES PATENT OFFICE

HENRY A. GRAEFF, OF ADAMSTOWN, PENNSYLVANIA.

IMPROVEMENT IN HAT-BLOCKING MACHINES.

Specification forming part of Letters Patent No. 171,794, dated January 4, 1876; application filed November 8, 1875.

To all whom it may concern:

Be it known that I, HENRY A. GRAEFF, of Adamstown, county of Lancaster, State of Pennsylvania, have invented a new and useful Improvement in Hat-Blocking Machines, of which the following is a specification:

The improvement is fully set forth in the following specification, reference being had to the accompanying drawings, of which—

Figure 1 is a side elevation with the table and rim-former in section. Fig. 2 is a front elevation with the table, rim-former, and cap removed, so as to show the mode of expanding the block. Fig. 3 is a plan of the table and rim-former. Fig. 4 is a front and side elevation of the cap.

Similar letters refer to similar parts in all the figures.

Motion is given to the shaft A and crank B through the pulley C, and by the crank-pin D and connecting-rod E is transmitted to the bar F, which has a reciprocating movement in the head of the stand G, and is retained in place by the cap H. The bar F has, at its lower end, a slot, F', in which the stud of the pin is movable, and can be secured at any point of its adjustment by a nut, F''. The upper end is threaded for part of its length, and provided with a nut, F''', which is both a support for the expander and an adjuster of its height upon the bar. The expander I, of hard wood or metal, is so formed that its movement shall produce the desired effect. The block of hard wood or metal is formed of segments J J, and supported at a proper height above the table K by the springs L, which connect them with the stand G and the cap H. These segments are so formed on their inside surface, which is concentric with the expander, that the rise of the latter, although rapid, will expand the block with a gradually accelerating movement. The table K is supported on coiled springs M, which have their bearing on the front and back posts

N N' of the frame. On the table, and connected by a pin to the back posts N', is a rim-former, O', with a handle, P.

The adjustment of the block for variation in size of bodies is secured by the movement of the stud in the slot at the lower end of the bar F, thus shortening or increasing the lift of the expander, and at the same time increasing or decreasing the expansion of the block J J.

Having thus fully detailed the machine, I will now show its operation: The machine being in motion, the operator takes up a body, and, opening it out with both hands, brings it down over the block J J; then, with the handle of the rim-former O' in hand, he presses it down over the body and block with sufficient force to form the rim, the reciprocating movement of the expander in the block forming the head or crown of the hat at the same time, the elasticity of the springs on which the table is supported preventing any undue strain on the body.

Bodies may be blocked out more rapidly, but not so uniformly, by dispensing with the rim-former, and with the hands working out the rim while drawing the body over the block.

The object of my invention is to secure a more rapid manipulation of hat-bodies in the preliminary blocking previous to dyeing, and by the use of this machine in actual practice the production of one operator has, in a given time, been increased twelvefold.

I claim as my invention—

The bar F, provided with slotted end F' and threaded end and nut F''', expander I, table K, with supporting-springs M, rim-former O', and the segmental blocks J J, with their connecting and supporting springs L, combined and operating substantially as described.

HENRY A. GRAEFF. [L. S.]

Witnesses:

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