2 Sheets—Sheet 1.

E. B. TAYLOR.

MACHINE FOR POUNCING HATS.

No. 187,783. Patented Feb. 27, 1877.

Fig. 1.

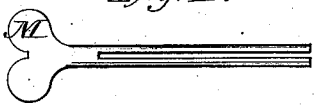


Fig. 2.

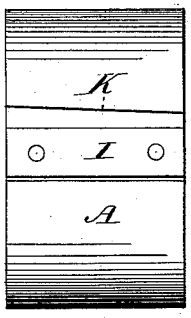


Fig. 4.

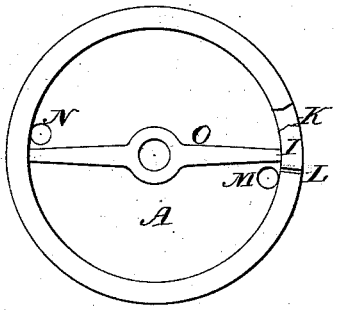


Fig. 3.

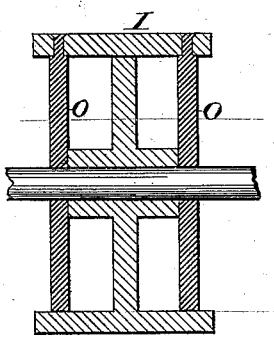
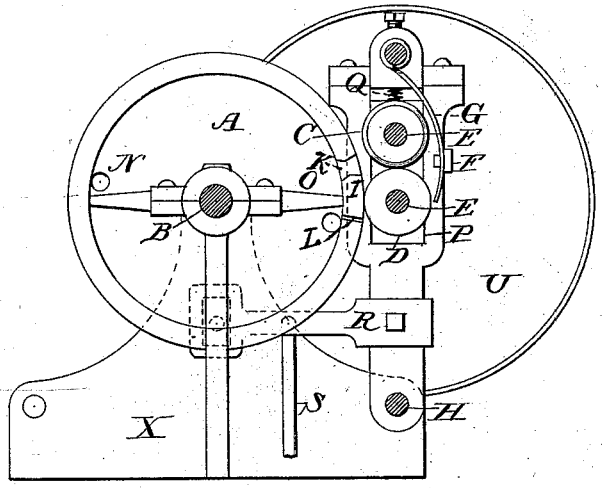


Fig. 5.



Witnesses

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2 Sheets—Sheet 2.

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MACHINE FOR POUNCING HATS.

No. 187,783. Patented Feb. 27, 1877.

Fig. 6.

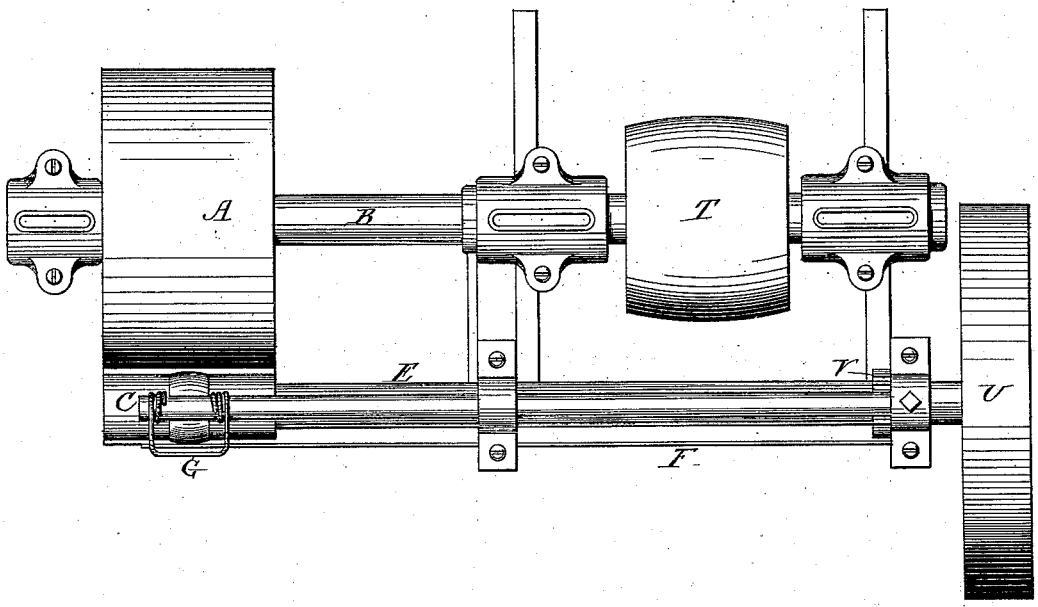
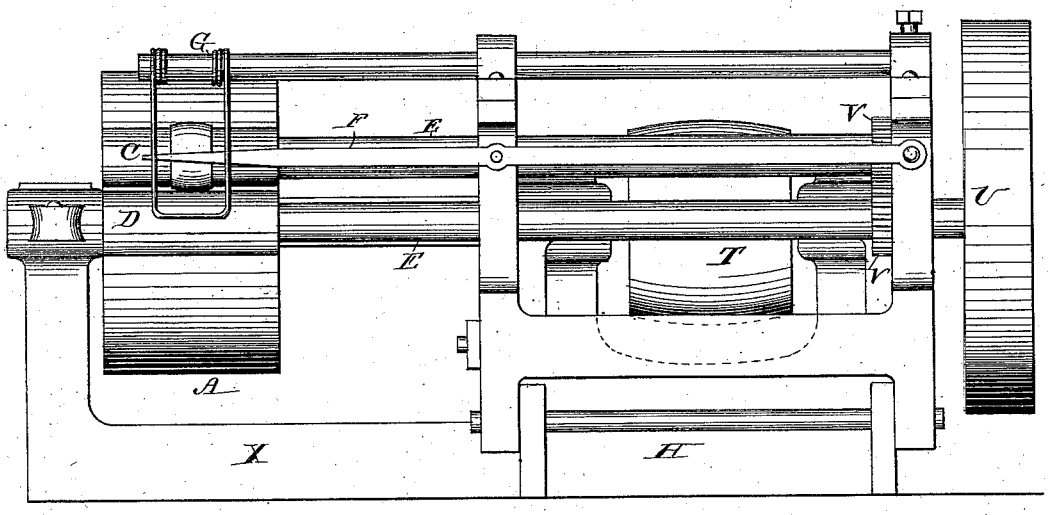


Fig. 7.



Witnesses

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UNITED STATES PATENT OFFICE.

EDMUND B. TAYLOR, OF PORTLAND, MAINE.

IMPROVEMENT IN MACHINES FOR POUNCING HATS.

Specification forming part of Letters Patent No. **187,783**, dated February 27, 1877; application filed September 27, 1876.

To all whom it may concern:

Be it known that I, EDMUND B. TAYLOR, of Portland, in the county of Cumberland and State of Maine, have invented a new and useful Machine for Pouncing Hats, which is fully set forth in the following specification, reference being had to the accompanying drawings.

The object of my invention is to provide a means of pouncing hats, simple, more effectual, and more economical than the means heretofore employed.

The first part of my invention consists of a cylindrical pouncing-roll to which the sand-paper or other pouncing substance is affixed by means of a movable section in the rim of the cylinder, attached to a movable arm on each side of the web, and held in place by means of a dovetailed key. The sand-paper or other material is passed through the opening in the rim, tightened by means of a key, and firmly fastened by replacing the dovetailed key and movable section.

The second part of my invention consists of the combination of a cylindrical feed-roll with a shoulder with a plain cylindrical feed-roll and a movable frame hung on pivots, which carries the feed-roll shafts, and is tipped by means of a stop lever and treadle, so as to press the feed-rolls against the pouncing-cylinder and thrown off by means of a spring whenever the pressure on the treadle ceases. The feed-roll shafts are hung to the frame by means of boxes and springs, as shown in Fig. 5. In the accompanying drawings the shoulder is shown in the center of the roll; but I do not confine it to any position, as it may be varied to suit the shape of the hat being pounced.

The third part of my invention relates to the combination of the two parts already described with each other and with two guards, marked in the accompanying drawings F and G.

In the accompanying drawings similar letters represent corresponding parts.

X is the bed of the machine; A, the pouncing-cylinder; B, the cylinder-shaft; C, the feed-roll with the shoulder; D, the plain feed-roll; E E, the feed-roll shafts; F, the hand-guard; G, the spring-guard; H, the pivotal rod; I, the movable section of the cylinder; K, the dovetailed key; L, the opening in the rim of the cylinder; M, the key which tightens the paper; N, an opening through the web of the cylinder similar to that through which the key M passes; O O, the movable arms of the cylinder; P, the boxes carrying the feed-roll shafts; Q, the spring pressing down the boxes; R, the stop-lever; S, the lever-rod; T, the driving-wheel of the pouncing-cylinder; U, the driving-wheel of the feed-rolls; V V, cogs connecting the upper feed-roll shaft with the driving-wheel U.

Figure 1 represents the key used to tighten the paper.

Fig. 2 is a section of the rim of the cylinder, showing the movable section I and the dovetailed key K.

Fig. 3 shows the construction of the movable arms, I being the section of the rim, O O the movable arms.

Fig. 4 is a side view of the pouncing-cylinder, showing the movable section I, the dovetailed key K, the arm O, the key M, and the balancing equivalent N.

Fig. 5 is an end view of the machine. X is the bed-frame; A, the pouncing-cylinder; B, the end of the cylinder-shaft; C, the upper feed-roll; D, the lower feed-roll; E E, the ends of the feed-roll shafts; F, the hand-guard; G, the spring-guard; H, the end of the front pivot of the movable frame; P, the front boxes carrying the feed-roll shafts; Q, the spring pressing down the front boxes; R, the stop-lever; S, the lever-rod; U, the driving-wheel of the feed-roll shafts.

Fig. 6 is a top view of the machine, A being the pouncing-cylinder; B, the cylinder-shaft; C, the upper feed-roll with shoulder; E, the upper feed-roll shaft; F, the hand-guard; G, the spring-guard; T, the driving-wheel of the pouncing-cylinder; U, the driving-wheel of the feed-roll shafts. V is a cog-wheel carrying the upper feed-roll shaft.

Fig. 7 is a side view of the machine. X is the bed; A, the pouncing-cylinder; C, the upper feed-roll; D, the lower feed-roll; E E, the feed-roll shafts; F, the hand-guard; G, the spring-guard; H, the pivotal rod carrying the movable frame; V V, the cogs connecting the upper feed-roll shaft with the driving-wheel U.

In use the dovetailed key K is drawn out;

the rim of the cylinder is opened at L; both ends of the sand-paper or other pouncing material are passed through this opening; it is drawn tightly round the cylinder by means of the key M, or in any other convenient manner, and securely fastened by replacing the dovetailed key. The key is withdrawn when the paper is fastened. The hat is passed between the feed-rolls C and D, and is pressed against the pouncing-roll A by the operation of the stop-lever and treadle upon the movable frame, which is thrown off from the pouncing-roll by a spring when the pressure on the treadle ceases. The shoulder in the feed-roll permits the operator to govern the hat and run it through the rolls in any direction. The guard F protects the hand of the operator from being caught in the rolls, and the spring-guard G prevents the hat from folding or wrinkling while passing through the rolls, and lessens its liability to cut or tear. The pouncing-cylinder is revolved at a comparatively high speed reversely to the feed rolls, which revolve at a comparatively low speed. The movable frame can be changed from side to side of the machine, so as to pounce both sides of the hat with the same machine.

I do not claim as my invention the key M, or its application to this purpose. I merely describe it as showing one convenient method of tightening the pouncing substance. Neither do I claim any part of the driving machinery.

What I claim as new in my invention is—

1. The combination of sand-paper or other pouncing material with the cylindrical roll, movable section and arms, and dovetailed key, substantially as described.

2. The combination of the feed-rolls C and D, the movable frame, and stop-lever, substantially as and for the purposes above described.

3. The combination of the cylindrical pouncing-roll A with the feed-rolls C and D, the two guards F and G, the movable frame, and stop-lever, substantially as and for the purposes above described.

4. The combination of the pouncing-roll A with the pouncing material and the two feed-rolls and movable frame, substantially as and for the purposes above described.

E. B. TAYLOR.

Witnesses:

FRED. N. DOW,

A. B. COLE.