

R. EICKEMEYER.
Machine for Pouncing Hats.

No. 159,912.

Patented Feb. 16, 1875.

Fig. 1.

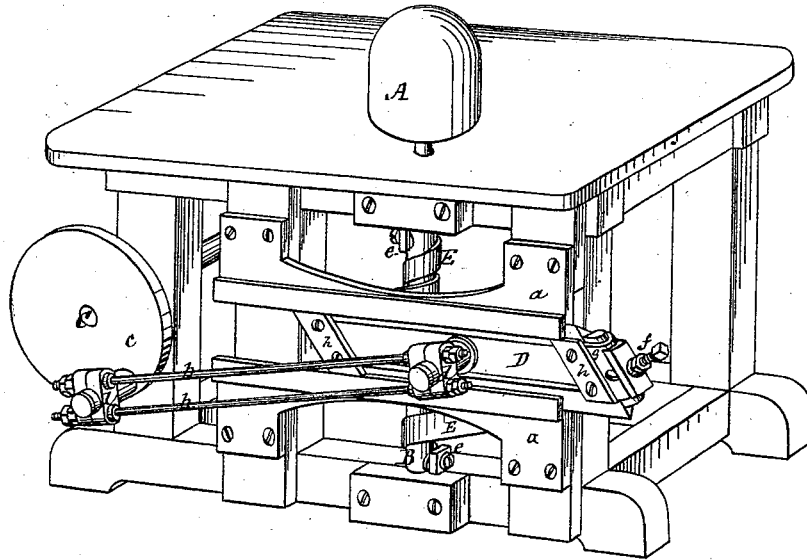


Fig. 2.

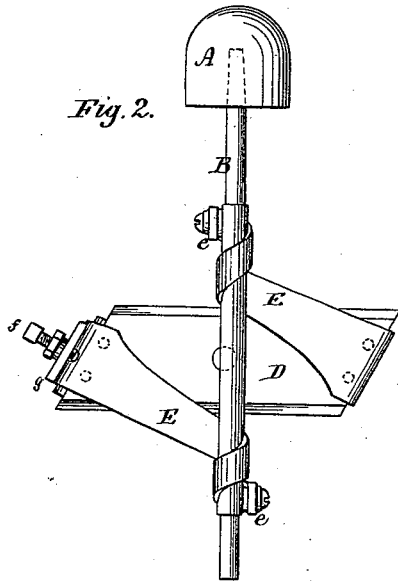
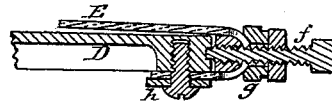


Fig. 3.



Witnesses.
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RUDOLF EICKEMEYER, OF YONKERS, NEW YORK.

IMPROVEMENT IN MACHINES FOR POUNCING HATS.

Specification forming part of Letters Patent No. **159,912**, dated February 16, 1875; application filed January 14, 1875.

To all whom it may concern:

Be it known that I, RUDOLF EICKEMEYER, of the city of Yonkers, in the county of Westchester and State of New York, have invented certain new and useful Improvements in Hat-Pouncing Machines; and I do hereby declare that the following specification, taken in connection with the drawings furnished and forming a part of the same, is a clear, full, and accurate description thereof.

My improvements relate to that class of machines in which the finishing-block has a reciprocating rotative movement; and my invention consists in a novel combination, with the hat-block spindle, of a reciprocating belt-slide, pitman, wheel, and double-spiral belting; and also in means for readily tightening the belts.

Such hat-block spindles have been heretofore rotated alternately in opposite directions by means of cranks, belts, and loose guiding-pulleys.

Round and flat belts have heretofore been employed. The former have been arranged to spirally engage with the spindle, the latter to concentrically wrap thereon; but in both cases they have been actuated by cranks, to which they were directly attached.

Such crank mechanism operates the belts with more or less unavoidable lost motion, and irregularity in movement of the hat-block.

While seeking to obviate these objections I have tested a system of rack-gearing, but have found it objectionable, on account of the attendant uproar in operation, and the liability of wear and breakage incident to the alternate rapid movement required.

To more particularly describe my invention, I will refer to the drawings, in which—

Figure 1 represents one of my improved machines in perspective. Fig. 2 represents the reciprocating belt-slide, belts, spindle, and block detached from the machine. Fig. 3 represents a belt-clamp on the end of the belt-slide.

A denotes the finishing-block, and B its spindle, which is provided with a suitable step and upper bearing. C denotes the driving-shaft, and D the reciprocating belt-slide,

which is fitted to adjustable slide-bearings *a* secured to the frame of the machine. The ends of the belt-slide are inclined, as shown, for the purpose of securing an even draft on the belt as it is drawn from contact with the spindle.

The belt-slide and driving-shaft are connected by means of the double rod pitman *b*, which is attached to the wheel *c*, and the belt-slide, by open boxes *d*, arranged to be readily adjusted, for the purpose of compensating for wear, by means of threads on the rods and the set-nuts, as shown.

E denotes in each instance a flat belt. One end of each belt is attached to the spindle, and at the opposite end to one end of the belt-slide D. The belts are respectively connected to the spindle near the step and the upper bearing by means of screw-clamps, as at *e*, and are so set with relation to the slide that when one belt is spirally wrapped on the spindle the other is unwrapped and tight. The slide at each end has a rounded edge, over which the end of the belt is drawn. Slots or holes are cut in that end of the belt through which the screws *f* may enter tapped holes in the ends of the slide, and compress the belt between the concave-faced clamps *g* and the end of the slide.

As additional holding devices, the side clamps *h* are provided, between which and the outer side of the belt-slide the ends of the belt are compressed and firmly held.

In operation, the revolution of the driving-shaft imparts a longitudinal reciprocating movement, which in turn imparts to the spindle a reciprocating rotatory movement.

With the crank-belt gearing heretofore employed, it is practically impossible to have both belts tight, and hence at every alternate movement there is more or less shock on belts and spindle, while with the system of gearing herein shown the movement is easy and uniform.

With a comparatively short range of movement on the part of the slide, I can rotate the spindle to any desired extent, and at any desired speed, without any attendant shock or noise.

Having thus described my invention, I claim as new, to be secured by these Letters Patent—

1. The combination, with a hat-pouncing-block spindle, of the reciprocating belt-slide and the double-spiral belting, substantially as described.

2. The combination, with the reciprocating belt-slide, of a screw belt-clamp, substantially as described.

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Witnesses:

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