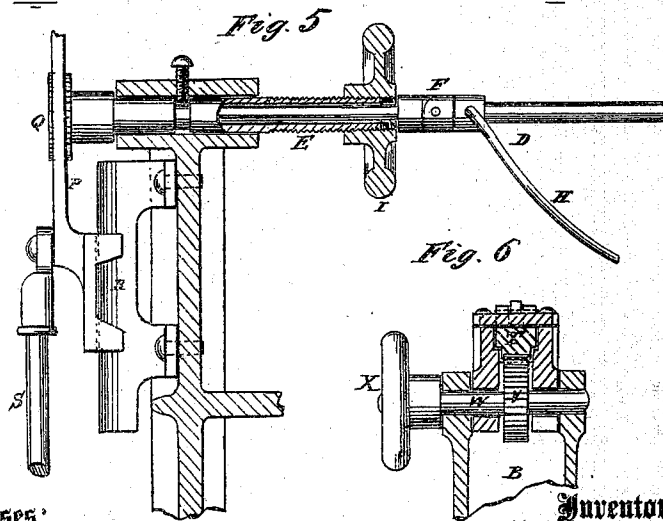
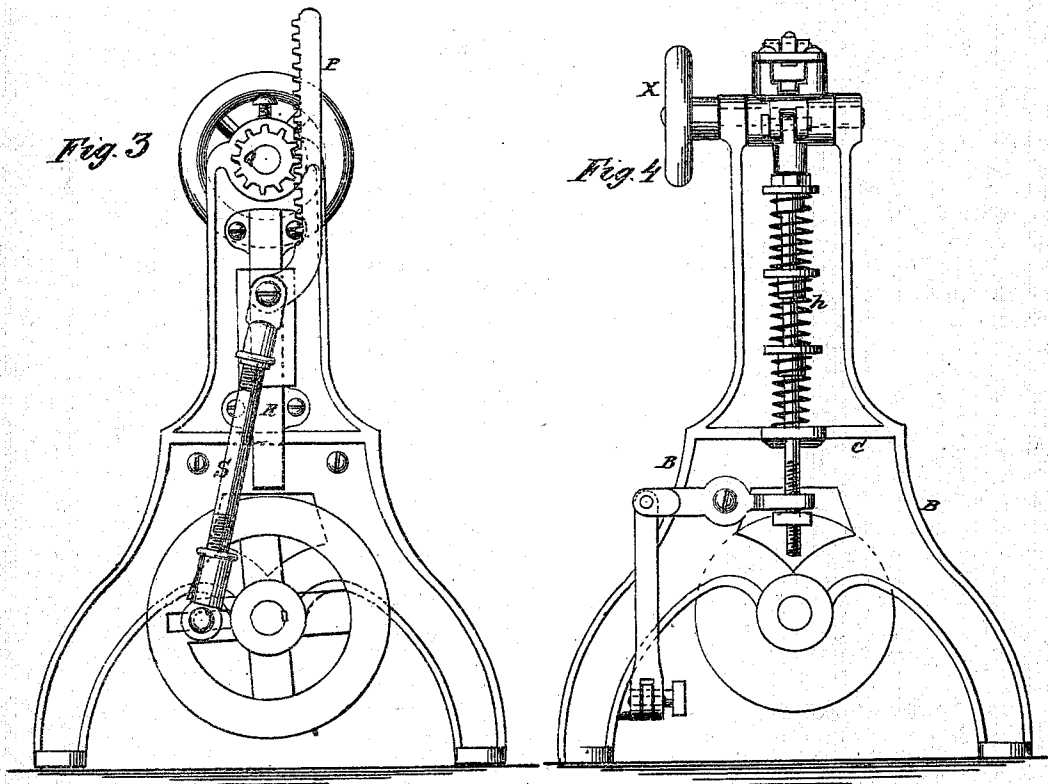


CAROLINE VROOMAN.
Heel-Burnishing Machines.

No. 139,636.

Patented June 3, 1873.



Witnesses:
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UNITED STATES PATENT OFFICE.

CAROLINE VROOMAN, OF BOSTON, MASSACHUSETTS, ADMINISTRATRIX OF
HENRY S. VROOMAN, DECEASED.

IMPROVEMENT IN HEEL-BURNISHING MACHINES.

Specification forming part of Letters Patent No. **139,636**, dated June 3, 1873; application filed
March 8, 1873.

To all whom it may concern:

Be it known that HENRY S. VROOMAN, of Boston, in the county of Suffolk and State of Massachusetts, did invent a new and useful Improvement in Machine for Burnishing or Polishing the Heels of Boots and Shoes, of which the following is a specification:

The invention consists in the improvement of machines for burnishing and polishing the heels of boots and shoes, as hereinafter described and pointed out in the claim.

Figure 1, Sheet 1, is a front elevation of the machine. Fig. 2 is a top or plan view. Fig. 3, Sheet 2, is the left-hand end elevation. Fig. 4 is the right-hand end elevation; Fig. 5, a sectional detail, showing the construction and manner of operating the spindle. Fig. 6 is a sectional detail on the line *x x* of Fig. 1, showing the construction and manner of operating the burnishing-beam.

Similar letters of reference indicate corresponding parts.

A is the frame or bench consisting of the stands B B and connecting-plate C. D is spindle hinge-jointed at F, and sliding in the threaded tube E. The latter is adjustable in the socket of stand B, and clamped at any point of adjustment by a screw passing down through said socket. The spindle is in two parts, hinged together, as seen at F, so that the part G can be turned one side to facilitate the putting in and taking out the shoe. H is a wire clasp which passes through the spindle to keep the shoe in position. I is a hand-wheel nut, which works over the externally-threaded tube E, and against a shoulder on the spindle, to force the latter forward into the shoe and the shoe against the heel-piece J. When the shoe is placed in the machine, as seen in Fig. 1, it is given a revolving motion of about two-thirds of a revolution by turning the crank K. This is accomplished by means of two crank-wheels, L and M, the latter being attached to the end of the sleeve E, and the former to the end of the driving-shaft N. The two wheels are connected by the rod O. This arrangement is seen in Fig. 1. This two-thirds revolution of the shoe may also be produced by means of a rack, P, and pinion Q, the latter being placed upon the sleeve instead of the wheel M, and the rack being made to slide on the guide-piece R, which is attached to the stand of the frame. The rack is connected with the driving-shaft wheel L by the rod S. The rod has a right-

and-left hand screw-thread on its opposite ends, so as to vary the length of the strike, the wrist-pin in the wheel L being confined in a slot so that the stroke of the crank can be increased or diminished, and the shoe turned more or less, as may be desired. T is the burnishing-beam. U is the burnisher adjustably attached to the end of the beam. The beam is given a longitudinal motion by means of a rack on its under side and a pinion, V, on the shaft W. X is a hand-wheel, by means of which it is moved. The beam is confined in the box Y, through which the shaft W passes transversely, so that the box and beam turn on the shaft and pinion. Z is a spiral spring on the rod *a*. This rod is attached to the box Y and passes down through the guide *b*. *c* is a lever which rocks on its fulcrum-pin *d*. *e* is a foot-lever or treadle, which is attached by a pivot-pin to the stand B, and to the lever C by the connecting-rod *f*. By bearing down on the treadle the outer end of the box and burnishing-beam are tipped down, which raises the burnisher from the heel. *g* is a spring which is placed in a groove in the top of the beam, the end of which is turned down at a right angle with the beam, so that it catches over the shoulder *h*, as seen in Fig. 1. This spring is depressed by the cam-lever *i*. The end of the spring acts as a stay and guide to the burnisher.

A cavity in the burnisher, seen in dotted lines, is connected by means of a hole with a gas-burner for heating the burnisher, if a high temperature is desired, but the burnisher is readily removed and heated and replaced, if required.

The machine may be operated by hand, or power may be applied by means of a band on the pulley *k*.

Having thus described the invention, what is here claimed, and desired to be secured by Letters Patent, is—

1. The threaded tube E and wheel-nut I combined with the sliding spindle, as and for the purpose described.

2. The cam-lever *i* and spring *g*, arranged to operate in connection with the beam T and burnisher U, as and for the purposes described.

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