

## HEEL FILING AND BUFFING MACHINE.

Patented April 11, 1876.

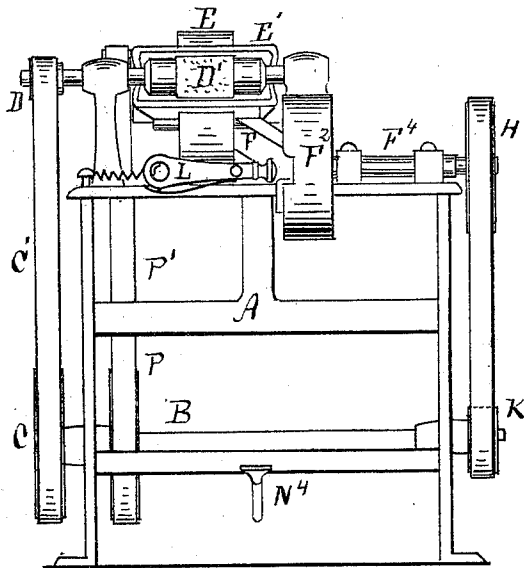


Fig. 1.

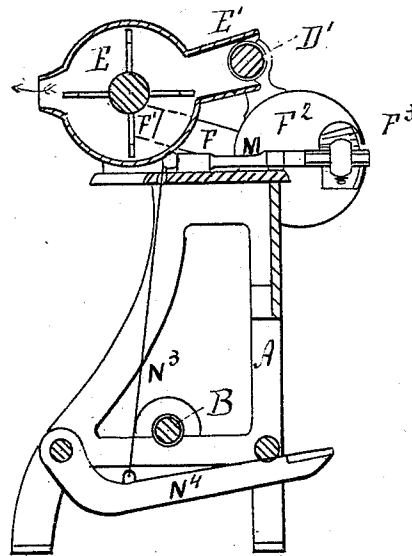


Fig. 2

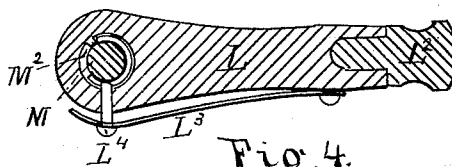


Fig. 4.

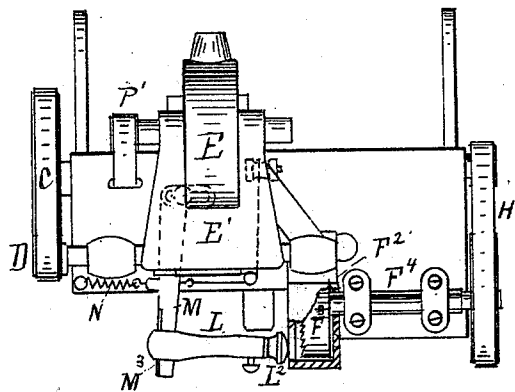


Fig. 3.

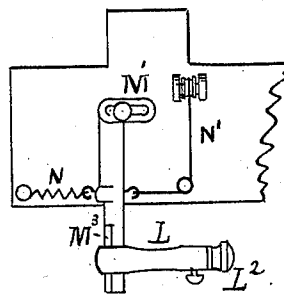


Fig. 5.

Witnesses

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HERMON C. TOWER AND JOHN N. TOWER, OF HUDSON, MASSACHUSETTS.

## IMPROVEMENT IN HEEL FILING AND BUFFING MACHINES.

Specification forming part of Letters Patent No. **175,882**, dated April 11, 1876; application filed July 24, 1875.

### *To all whom it may concern:*

Be it known that we, HERMON C. TOWER and JOHN N. TOWER, both of the town of Hudson, county of Middlesex, State of Massachusetts, have invented a Heel Filing and Buffing Machine, of which the following is a specification:

Our invention has for its object the combination, in a single machine, of a filer and a sand-papering or buffing device, in such a manner and with such additional appliance that the combination furnishes a machine which will smooth the bottoms of boots and shoes in a rapid and thorough manner.

Figure 1 is a front elevation of our machine. Fig. 2 is an end elevation of the same. Fig. 3 is a plan of the same. Fig. 4 is a view of the device for holding the boot or shoe. Fig. 5 is an enlarged plan of the device for holding the boot or shoe.

Let A represent the frame of the machine, to which the working parts are attached. B is the main or driving shaft. C is a belt, extending from the pulley C, Fig. 1, to the shaft D of the sand-paper roll D'. This sand-paper roll is inclosed in casing E', Figs. 1, 2, and 3. E is an ordinary blower, driven by the belt P', which serves to draw off the dust which is made by the sand-paper on D'. This blower also acts to make a draft to draw off the filings and dust that is made by the file-wheel F<sup>3</sup>, Figs. 2 and 3, the current passing through the pipe F, Figs. 1, 2, and 3. F<sup>3</sup> is a file-wheel, inclosed in the casing F<sup>2</sup>, and driven by the shaft F<sup>4</sup>, pulley H, and belt K, Fig. 1. The object of the file-wheel F<sup>3</sup> is to take off the

ends of the nails, and to even the surface of the leather—that is, bring the surface of the heel to an even surface—so that the sand-paper on D' has only to put on a final finish, thus saving the sand-paper from most of the work. The file-wheel F<sup>3</sup>, working roughly, rapidly reduces the surface of the heel, and thus saves time. The jack for holding the boot or shoe is shown at L, Fig. 4. This jack is provided with an adjustable end piece L<sup>2</sup>, Figs. 3, 4, and 5, and is attached to a movable arm, M, Figs. 2, 3, 4, and 5. This movable arm M is hung on an adjustable pivot at M<sup>1</sup>, Fig. 5, and is held back by the spring N, Fig. 5. It can be thrown forward by the foot-lever N<sup>4</sup>, Fig. 2, which acts through the strap N<sup>3</sup>, Fig. 2, N<sup>1</sup>, Fig. 5. The jack L swings on the arm M, and is held by the spring-clutch L<sup>3</sup> L<sup>4</sup>, the pin L<sup>4</sup> playing in an annular groove (not shown) on M. The opening in L, Fig. 4, is provided with a fixed key, M<sup>2</sup>, which fits in a corresponding keyway, M<sup>3</sup>, made on M, Fig. 3, so that the jack L cannot turn below the position shown in Fig. 1, though it is free to be turned up for receiving the boot or shoe.

We claim—

The combination of the jack L, provided with the spring-clutch L<sup>3</sup> L<sup>4</sup>, the adjustable arm M with the file-wheel F<sup>3</sup>, all substantially as shown and described.

HERMON C. TOWER.  
JOHN NOYES TOWER.

Witnesses:

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