

E. H. DOWNING.

Machinery for Burnishing Heels of Boots and Shoes.

No. 152,472.

Patented June 30, 1874.

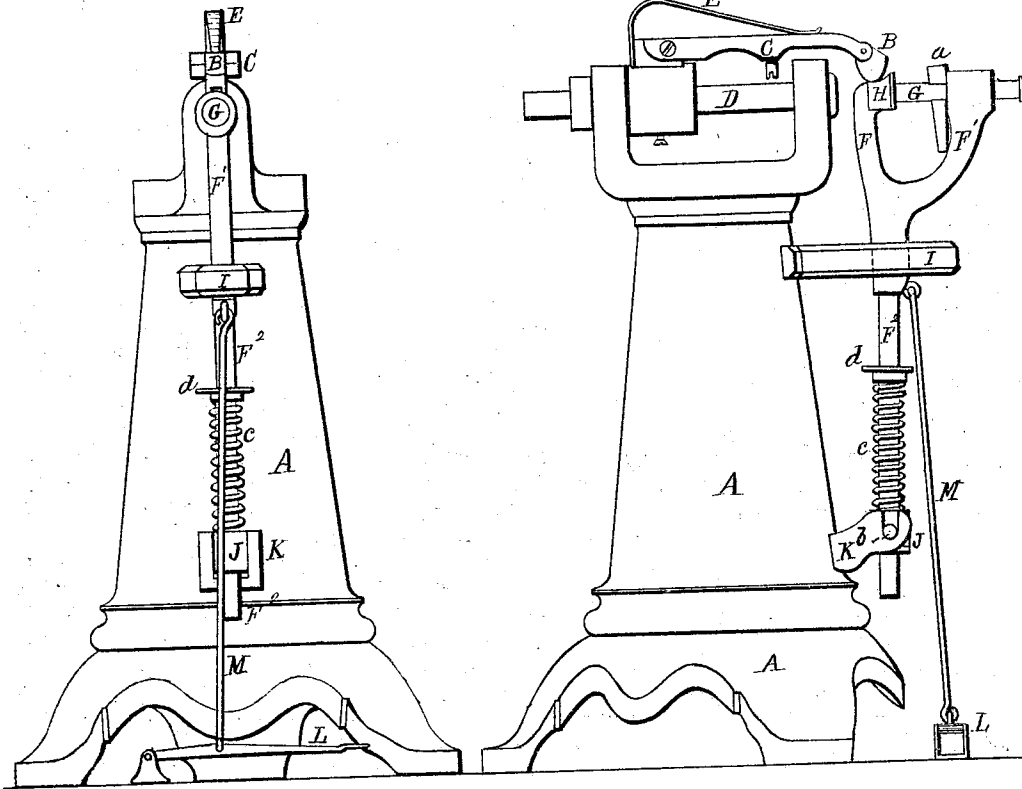


Fig. 1.

Fig. 2.

Witnesses.

Wm. B. Edwards

S. A. Wood.

Inventor

E. H. Downing.

UNITED STATES PATENT OFFICE.

EBEN H. DOWNING, OF LYNN, MASSACHUSETTS, ASSIGNOR OF ONE-HALF HIS RIGHT TO WILLIAM JOINT, OF SAME PLACE.

IMPROVEMENT IN MACHINERY FOR BURNISHING HEELS OF BOOTS AND SHOES.

Specification forming part of Letters Patent No. **152,472**, dated June 30, 1874; application filed May 1, 1874.

To all whom it may concern:

Be it known that I, EBEN H. DOWNING, of Lynn, in the county of Essex and State of Massachusetts, have invented an Improvement in Machines for Burnishing the Heels of Boots and Shoes, of which the following, taken in connection with the accompanying drawings, is a specification:

My invention is an improvement upon the invention patented to myself and William Joint, February 11, 1873, and numbered 135,786, and is designed to relieve the operator and make the labor of running the machine less tiresome, and to make the adjustment of the jack more easily accomplished. My invention relates to a device for depressing the yielding jack against the tension of the spring upon which it rests, and the arrangement of the adjusting-nut with relation to the spring upon which the jack rests. My invention consists in the use of an adjustable bearing of the jack-stock upon the top of the spring as a means of varying the height of the jack, to adapt it to various sizes and styles of heels without changing the tension of the spring.

In the drawings, Figure 1 is a front elevation, and Fig. 2 is a side elevation, of so much of a machine as is necessary to illustrate my invention.

A is the column or supporting-frame, B the burnishing-tool, C the tool-arm, D the burnisher-shaft, and E the pressure-spring, all of which are constructed, arranged, and operated in a well-known manner by suitable mechanism (not shown) to impart to the burnishing-tool the necessary and desired circular vibratory motion. The jack, consisting of two separated arms, F and F¹, and the jack-rod F², projecting downward therefrom, is provided with the clamping-spindle G, operated or held in position by the wedge *a* or other suitable device to clamp the heel H and hold it in position, all of which is constructed in a well-known manner, and guided in its move-

ments by the slotted guide I, also in a well-known manner. The rod F² passes freely through a hole in the block J, which is provided with a trunnion, *b*, on either side thereof, which rests in suitable bearings in the stand K attached to the column A, all in accordance with the patent granted as above to myself and William Joint. A spiral spring, *c*, surrounds the jack-rod F², with its lower end resting on the block J and the upper end pressing against the adjustable collar or nut *d*. The nut or collar *d* is made adjustable for the purpose of controlling the position of the jack vertically without varying the tension of the spring. L is a treadle, secured to the floor or the base of the column, as may be desired, and connected to the jack by means of the link or connecting-rod M, as shown.

It has been found that in burnishing heels of certain styles—such, for instance, as have large heel-seats and very small treads—when it is desired to have the burnishing-tool act upon the part of the heel next the heel-seat, it is necessary for the operator to press down upon the jack, and thus overcome a portion of the pressure of the spring *c*, which becomes very tiresome after a while; hence the use of the treadle to relieve the arms and hands of the operator of a portion of the labor, and it has proved in actual use a very valuable auxiliary.

What I claim as my invention, and desire to secure by Letters Patent of the United States, is—

The yielding jack provided with the treadle or lever L, connected therewith, and the adjusting-nut *d*, all as and for the purpose described.

Executed at Boston this 25th day of April, 1874.

EBEN H. DOWNING.

Witnesses:

WM. P. EDWARDS,
S. A. WOOD.