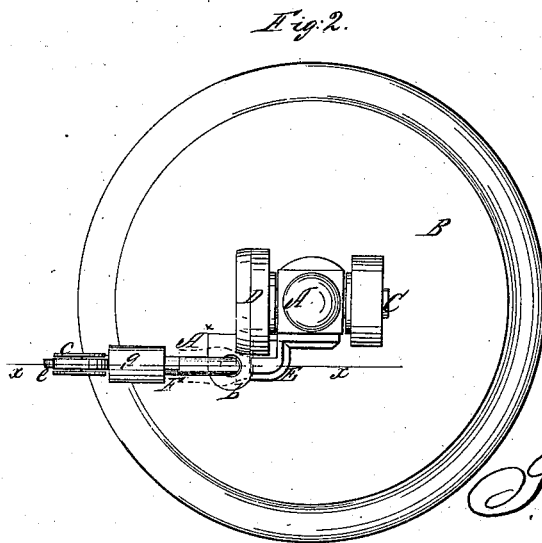
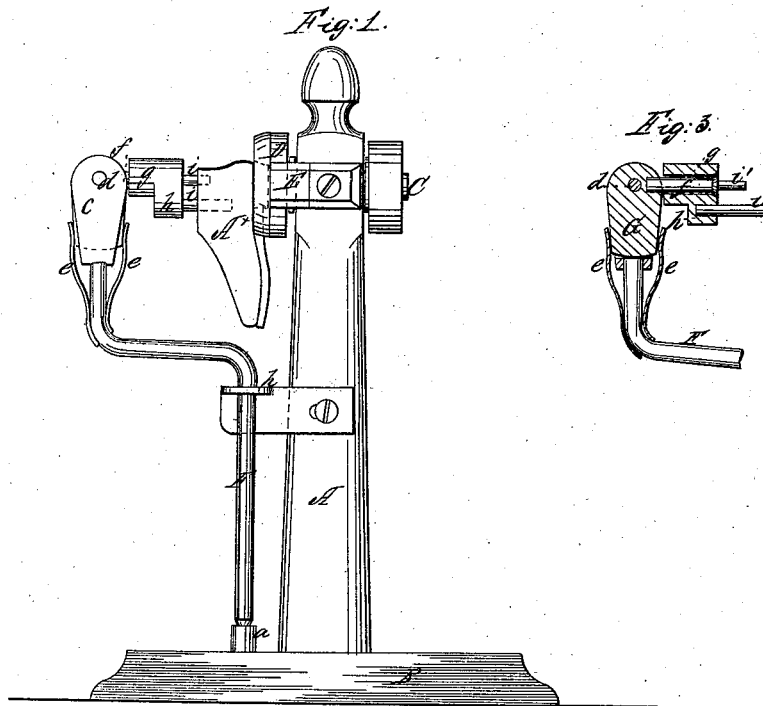


*S. D. Tripp*  
*Shoe-Heel Machine.*

*N<sup>o</sup> 52,470.*

*Patented Feb. 6, 1866.*



*Witnesses:*  
*Wm E. Lyons*  
*Wm. Trewin*

*Inventor:*  
*S. D. Tripp*  
*By* *Wm. Trewin*  
*Attorney*

# UNITED STATES PATENT OFFICE.

S. D. TRIPP, OF LYNN, MASSACHUSETTS.

## IMPROVED HEEL-POLISHING MACHINE.

Specification forming part of Letters Patent No. 52,470, dated February 6, 1866.

*To all whom it may concern:*

Be it known that I, S. D. TRIPP, of Lynn, in the county of Essex and State of Massachusetts, have invented a new and useful Improvement in Machines for Polishing the Heels of Boots and Shoes; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is an elevation of my invention; Fig. 2, a plan or top view of the same; Fig. 3, a vertical section of a portion of the same, taken in the line *x x*, Fig. 2.

Similar letters of reference indicate corresponding parts.

This invention is designed to obviate a difficulty hitherto attending the polishing of boot and shoe heels on the last by machinery. This difficulty consists in keeping the bottoms of the heels in contact with the guard or rest which preserves the edges of the heels, preventing them from being rounded or pressed out of shape under the action of the polishing-wheel, said difficulty being caused by the last having its center of motion out of line with the center of the heel, or not at right angles therewith, the hole in the last which receives the stud of the rotating arm being bored in front of the center of the heel and slightly inclined toward the toe, in order to prevent splitting.

My invention consists in having the stud or studs which enter the last arranged in such a manner that they, and consequently the last, may rise and fall, and thereby compensate for the oblique attachment of the last to the rotating arm of the device.

A represents an upright, which is attached to a suitable base, B, and has a shaft, C, passing horizontally through its upper end; with a polishing-wheel, D, at one end.

E is a guard or rest attached to the upright A, and against which the bottom of the heel of the boot or shoe is pressed while the heel is being polished.

F is a shaft, the lower end of which is fitted in a stop, *a*, on the base B of the machine. The shaft is curved at its upper part, like a crank, and just below said crank part there is a bearing, *b*, through which said shaft passes.

To the upper end of the shaft F there is attached a socket, *c*, in which a pendent plate, G, is secured by a pivot, *d*; and *e e* are two

springs attached to the shaft F, and having their upper ends bearing against opposite sides of the plate G, as shown clearly in Fig. 3, said springs having a tendency to keep the plate G in a vertical position.

To one side of plate G there is attached a horizontal arm or rod, *f*, on which a sleeve, *g*, is fitted and allowed to turn freely, said sleeve *g* being provided with a pendant, *h*, at its outer end, in which a stud, *i*, is inserted to enter the holes in the last A<sup>x</sup>. A supplemental stud, *i*, is attached to the arm or rod *f*, to enter the last a short distance.

By this arrangement it will be seen that the bottom of the heel of the boot or shoe may be kept in contact with the guard or rest E while the side of the heel is pressed against the polishing-wheel and the last turned so that the wheel may act upon all parts of the heel, the plate G being allowed to swing or vibrate on its pivot *d*, so that the last may rise and fall, and thereby compensate for the oblique attachment of the last to the sleeve *g*. The turning of the shaft F on its bearings, it will be seen, admits of the movement of the last and heel in a horizontal direction.

The two studs are employed in order to prevent the turning of the last independently of the sleeve *g*. The heel may be pressed in contact with the polishing-wheel by any suitable mechanical arrangement.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The attaching of the stud *i*, which enters the hole or holes in the last A<sup>x</sup>, to a sleeve, *g*, connected to a pendent or swinging plate, G, all arranged in such a manner as to admit of the last, and consequently the heel of the boot or shoe, rising and falling to admit of the proper adjustment of the heel to the polishing-wheel and guard or rest, substantially as herein shown and described.

2. The springs *e e*, attached to the shaft F, in combination with the pendent or swinging plate G, substantially as and for the purpose specified.

3. The combination of the shaft F, pendent or swinging plate G, sleeve *g*, studs *i i'*, polishing-wheel D, and guard or rest E, substantially as and for the purpose set forth.

S. D. TRIPP.

Witnesses:

CHARLES G. FOSTER,  
CYRUS CUSHMAN.