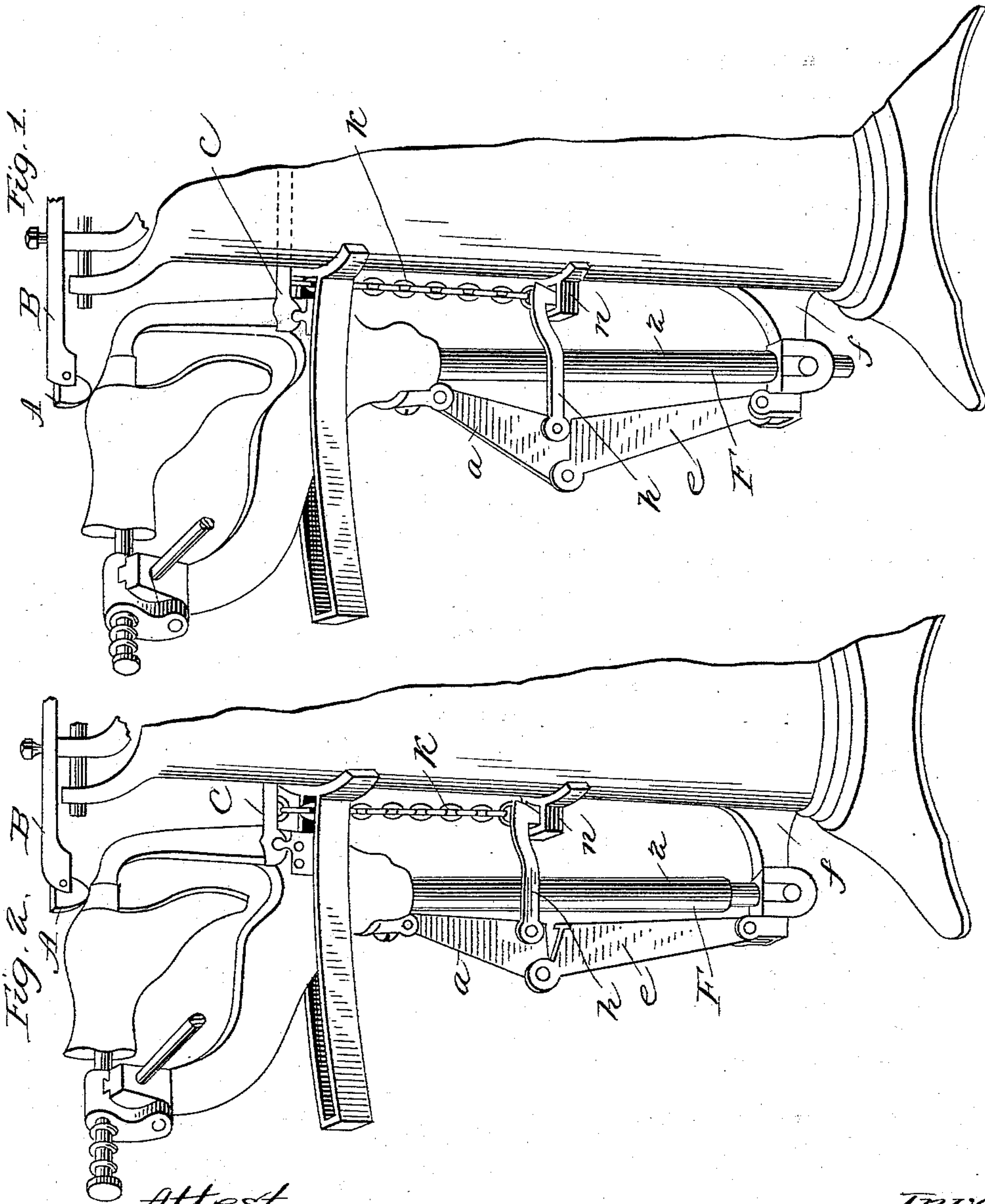


(No Model.)

W. G. ANTHONY.
BURNISHING MACHINE.

No. 335,671.

Patented Feb. 9, 1886.



Attest
Charles S. Sturtevant,
Leodore Middleton

Inventor
Wm G. Anthony
by Joyce Spear
Attys.

UNITED STATES PATENT OFFICE.

WILLIAM G. ANTHONY, OF LYNN, MASSACHUSETTS.

BURNISHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 335,671, dated February 9, 1886.

Application filed March 13, 1885. Serial No. 158,711. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM G. ANTHONY, of Lynn, in the county of Essex and Commonwealth of Massachusetts, have invented certain
5 Improvements in Burnishing-Machines, of which the following, taken in connection with the accompanying drawings, is a specification.

This invention relates to burnishing-machines; and the nature thereof is fully described hereinafter, and specifically pointed
10 out in the claims.

Referring to the drawings, Figure 1 is a side view of my invention attached to a burnishing-machine, and shows only so much of the
15 machine as is necessary to illustrate the combination of my invention therewith. Fig. 2 is the same as Fig. 1, except that in this view the mechanism shown is represented in different position, to be more fully described hereinafter.
20

The machine to which my invention is to be applied is known in the trade as the "Taply Heel-Burnisher," and the construction thereof is fully known to persons skilled in the art to
25 which it pertains.

In Letters Patent of the United States No. 266,838 is described a mechanism for imparting action to the jack at right angles to the movement of the burnisher automatically, and
30 it is in combination with a burnishing-machine having such automatic jack-moving mechanism that my invention is specially useful; but while my invention is especially applicable to machines of the class described, it may be attached to other styles of machines with useful
35 results.

Referring to the drawings, it will be understood that the burnisher-tool A is made to vibrate round the heel of the shoe, while the
40 shoe-holding jack is moved in line at right angles to the movement of the burnisher to bring the whole length of the heel under the burnisher. Said burnisher A is mounted in a spring, B, and connected with mechanism (not shown) whereby the movement is imparted to
45 the tool. The jack is also connected with a lever or latch, C, which lever is operated by mechanism (not shown) referred to above to impart the automatic movement to the jack,
50 as described, and thus bring the whole length of the heel to the action of the tool A.

It will be observed by reference to Fig. 1

that in this view the tool A is represented as working on the heel-seat, while in Fig. 2 it is working down near the bottom or tread portion of the heel. It is necessary that the tool
55 A in passing between these two extremes should follow the curvature of the heel, and to this end the tool is mounted in a spring lever or support, B, as shown. To produce the
60 polish nicely and quickly, it is necessary to have the tool bear with considerable force on the heel, and therefore the spring-lever B must be adjusted to fit the lowest lines of the heel, so as to insure good work at this point. As,
65 however, the jacks are not vertically movable to and from the tool in the machines referred to, the pressure necessary to produce good results at the lowest lines of the heel will be found too great for the high lines, or that portion
70 of the heel near the seat, and consequently disastrous results are liable to attend the work at this point by reason of the pressure being so great as to jam or crowd the material out of shape. To avoid this difficulty, I have provided
75 means to impart an automatic reciprocating movement to the jack vertically, (the jack-post being supported in the bracket-arm *f*, which is adapted to permit the vertical movement referred to;) and to this end I attach the toggle-arms *a e*, (the same being jointed
80 as shown,) one end to the jack and the opposite end to the bracket-arm *f*. Said toggle-arms are further connected by a latch, *h*, to the stationary bracket or link *n*, as fully illustrated in the drawings. It will now be understood that the movements of the jack imparted
85 by the latch-lever C to pass the heel under the tool, as before described, will operate to open and close the toggle-arms *a e*, for, supporting
90 the jack to be swung from the position shown in Fig. 1 to the left to pass the heel under the tool by means of the latch-lever C, as before stated, the catch *h* will then be brought into action and draw upon the toggle-arms, thereby
95 straightening them and raising the jack by a gradual movement to present every part of the heel to the tool, so as to receive a uniform pressure therefrom. When the jack-post is moved in the reverse direction, the catch *h* will act to
100 close the toggle-arms, and thus lower the jack as the seat or high portion of the heel moves under the tool to be acted upon. At one extreme the toggles are opened, as in Fig. 2, thus

elevating the jack to bring the desired pressure of the tool while working on the small part of the heel. At the other extreme the toggles *a e* are closed, as in Fig. 1, thus depressing the jack and relieving the pressure of the tool while it is working on the heel-seat. The passage between these two extreme positions of the jack is attended by gradual opening and closing of the toggles, thus causing the jack to conform approximately in its vertical movements to the curvature of the heel.

It will be understood that the jack must be thrown backward to put on and take off the shoe; and to this end the latch *C* must be lifted and likewise the latch *h*, and I connect the two by a chain, *k*, so that when one is lifted the other will follow. Thus I unlock the jack by a single operation.

It will be understood that the construction and arrangement of the jack are fully described in the Letters Patent and machine above named, and will not therefore require further description herein; but

I claim as my invention and desire by Letters Patent to secure—

1. In a heel-burnishing machine, in combination, a vibrating shaft carrying a burnishing-tool, a shoe-carrying jack mounted upon a loosely-journaled post, said jack having movement in the plane at right angles to the plane of movement of the burnisher, and mechanism consisting of toggle-levers adapted to impart positively-reciprocating vertical movement to the jack, substantially as described.

2. In a burnishing-machine, the combination of a burnisher-tool, the shoe-carrying jack carried upon a loosely-journaled post, the toggle-arms *a e*, and latch *h*, arranged to operate substantially as and for the purposes stated.

WILLIAM G. ANTHONY.

Witnesses:

C. B. TUTTLE,
JAMES W. CARVER.