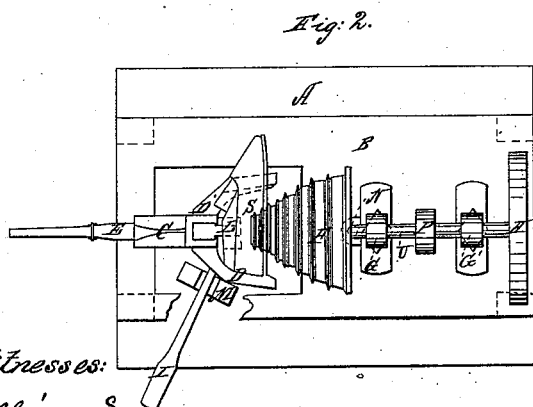
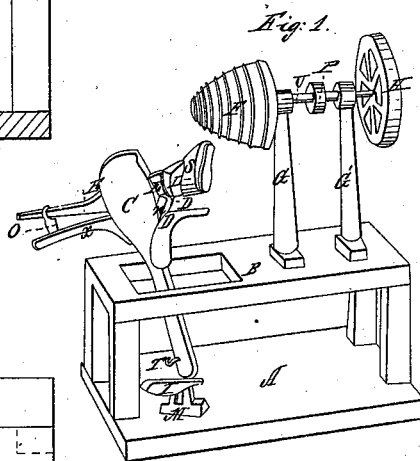
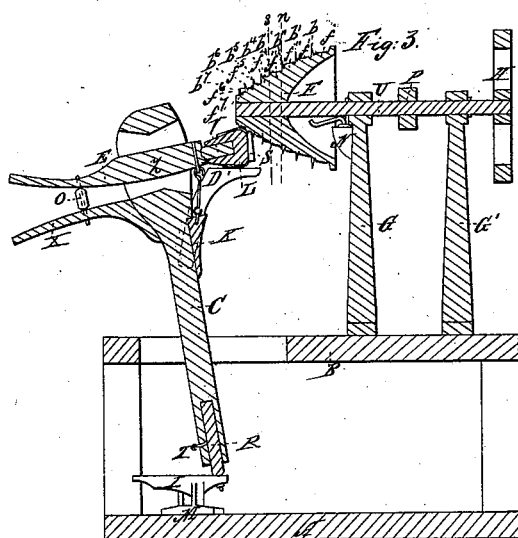


*N. C. Stow,*  
*Shoe-Sole Machine,*

*Nº 52,336.*

*Patented Jan. 30, 1866.*



*Witnesses:*  
*William Edison*  
*Cyrus Hay*

*Inventor:*  
*Nathan C. Stow*

# UNITED STATES PATENT OFFICE.

NATHAN C. STOW, OF STONEHAM, MASSACHUSETTS.

## IMPROVED BURNISHING-MACHINE.

Specification forming part of Letters Patent No. 52,336, dated January 30, 1866.

*To all whom it may concern:*

Be it known that I, NATHAN C. STOW, of Stoneham, in the county of Middlesex and State of Massachusetts, have Invented a Machine for Burnishing the Edges of Shoe-Soles, which I call a "Shoe-Edge-Burnishing Machine;" and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The nature of my invention consists in constructing a machine composed of a conical wheel whose surface is composed of fillets and beads alternately, as shown at F in all the figures, each fillet and its adjoining bead making a complete "iron" for burnishing and a shoe-holder in which the shoe to be operated upon is fastened. The whole, when operated, will burnish the edge of a shoe-sole as well as it could be done by hand and much more rapidly.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and use.

In the drawings, Figure 1 is a perspective view of the machine. Fig. 2 is a plan of the machine. Fig. 3 is a vertical section of the machine.

A in all the figures represents the base or floor upon which the machine stands. B in all the figures represents the body or frame of the machine. G and G' are standards, the upper ends of which form bearings in which the shaft U of the burnishing-wheel runs. Upon the shaft U is affixed at one end the balance-wheel H, at the other end the burnishing-wheel F, and at about the middle the driving-pulley P.

The burnishing-wheel F in all the figures is made of any suitable metal. Its exact shape is shown in section at F in Fig. 3. Its outer surface is composed of fillets  $f$   $f'$   $f''$   $f'''$ , &c., and of beads  $b$   $b'$   $b''$   $b'''$ , &c., alternately, as shown at F, Fig. 3. A fillet and bead combined make an iron. Thus I call that part of the burnishing-wheel that lies between the dotted lines  $s$   $t$  and  $u$   $v$ , Fig. 3, an "iron." The irons are of different dimensions to suit the differ-

ent kinds of shoes. The edge of a thick shoe-sole would be burnished on the iron whose fillet and bead are represented by  $f$  and  $b$ , Fig. 3, while the edge of a thin shoe-sole would be burnished on the iron whose fillet and bead are represented by  $f^{vi}$  and  $b^{vi}$ , Fig. 3.

To the standard G is attached a lamp, N, which serves when burning to keep the burnishing-wheel F at the proper temperature.

The shoe S to be operated upon is held in position by a device which I call a "holder," and which consists of a standard, C, provided with a foot, R, Fig. 3, movable in a socket in the lever I, and also movable in the direction of its length in the standard-piece C, in which it is held in any desired position by the set-screw T. The lever I is operated by the foot to raise or lower the holder. M forms a fulcrum for the lever I.

Attached to the standard C is a fixed arm, X, Figs. 1 and 3, and a movable arm or lever, E. The fixed arm X, together with the link and block O, form an arrangement for holding in any desired position the lever E. The lever E pivots upon the pin Z, Fig. 3.

To the lever E, by means of the link  $n$ , is attached a sliding rest, D and D', Figs. 1 and 2, and D' and K in Fig. 3. This sliding rest moves with the lever E and assists to hold the shoe S. The end of the lever E is rounded off, as shown by V, Fig. 3, in such a manner as to admit of its entrance into the holes usually made in shoe-lasts. The shoe being operated upon is indicated by S, and the last by L.

The operation of the machine is this: The lamp N is lighted and the burnishing-wheel set in motion. A shoe before it is taken from the last is placed upon the end V of the lever E and adjusted to the proper inclination by raising or lowering the lever E by means of the link and block O. When this adjustment is complete the operator takes a firm grasp, one hand upon the lever E and fixed arm X and the other hand upon the shoe, and, placing it in proper position under the burnishing-wheel F, he puts his foot upon the lever I and thus brings the shoe up under and against that part of the burnishing-wheel which fits

the shoe under operation. As the edge in immediate contact is finished the shoe is moved along and guided by the operator until the entire edge has passed under the burnishing-wheel.

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

1. A rotating burnishing-wheel formed sub-

stantially as described, and for the purpose set forth.

2. The shoe-holder made substantially as described, and for the purpose set forth.

NATHAN C. STOW.

Witnesses:

WILLIAM EDSON,  
CYRUS HAY.