

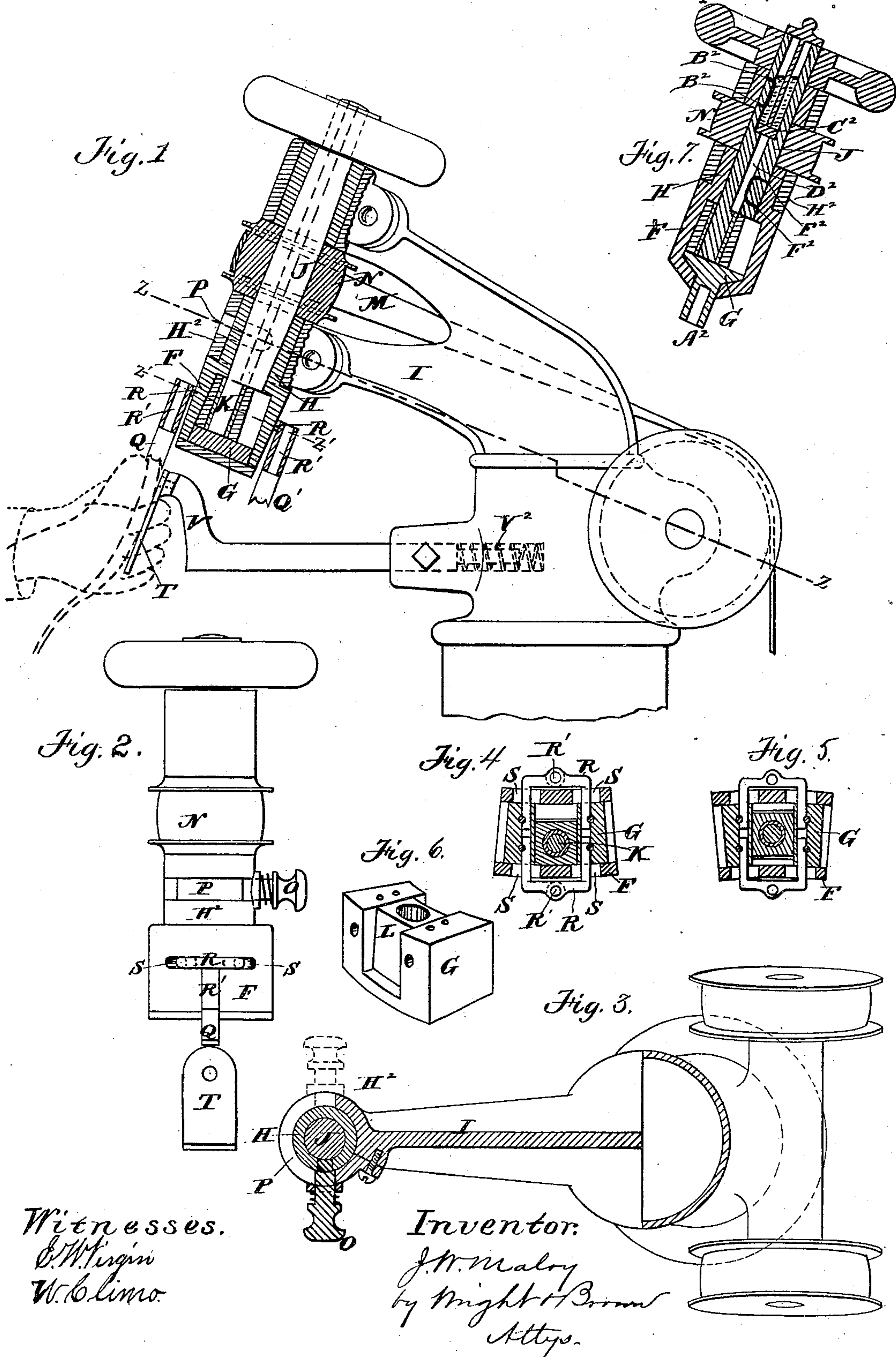
(No Model.)

J. W. MALOY.

SOLE EDGE BURNISHING MACHINE.

No. 246,622.

Patented Sept. 6, 1881.



UNITED STATES PATENT OFFICE.

JAMES W. MALOY, OF SOMERVILLE, MASSACHUSETTS.

SOLE-EDGE-BURNISHING MACHINE.

SPECIFICATION forming part of Letters Patent No. 246,622, dated September 6, 1881.

Application filed December 6, 1880. (No model.)

To all whom it may concern:

Be it known that I, JAMES W. MALOY, of Somerville, in the county of Middlesex and State of Massachusetts, have invented certain
5 Improvements in Sole-Edge-Burnishing Machines, of which the following is a specification.

This invention relates to that class of sole-edgesetting or burnishing machines employing
10 a reciprocating burnishing-tool, against which the edge of the sole to be burnished is pressed by the operator, the reciprocating tool being guided in a curved path corresponding to the contours of a given portion of the sole-edge.

15 The invention has for its object, first, to provide improved means for substituting one burnishing-tool for another while the machine is in operation; and, secondly, to enable the curvature of the path of the burnishing-tool to
20 be readily changed from a concave to a convex curve, and vice versa.

The invention also has for its object to provide an improved rest or bearing for the bottom of the sole and for the operator's hand while
25 the sole-edge is being burnished.

To these ends my invention consists, first, in the improved means employed for substituting one tool for another while the machine is in operation; secondly, in the improved means
30 employed for changing the curvature of the path of the tool; and, thirdly, in the improved rest, substantially as hereinafter specified, and particularly pointed out in the claims.

Of the accompanying drawings forming a part
35 of this specification, Figure 1 represents a side elevation and partial section of a machine embodying my invention. Fig. 2 represents a front elevation of the same. Fig. 3 represents a section on line $z z$, Fig. 1. Figs. 4 and 5 represent sections on line $z' z'$, Fig. 1, the curved
40 guide or holder being reversed in Fig. 5 from the position shown in Fig. 4. Fig. 6 represents a perspective view of the reciprocating curved block or carriage carrying the burnishing tool or tools; and Fig. 7 represents a sectional view of the burnisher-shaft, illustrating a mode of lubricating the same.

The same letters of reference indicate the same parts in all the figures.

50 In carrying out my invention I employ a curved frame or holder, F, as a guide for the

block or carriage G, which is adapted to reciprocate in said holder.

H represents a cylindrical box, to which the holder F is rigidly attached. The box H is
55 journaled in a box, H², on a supporting-frame, I, and is adapted to rotate therein so as to present either side of the curved frame F at the front of the machine.

J represents a shaft journaled in the frame
60 I, and extending through the box H into the holder F, where it is provided with an eccentric-pin, K, entering a box, L, adapted to slide in a transverse groove in the block or carriage G. The shaft J is rotated by a belt, M, on a
65 pulley, N, affixed to said shaft, and by its rotation reciprocates the block or carriage G (which is caused by the curved holder to move in a curved path) with a short stroke.

The box H is provided with a handle, O,
70 projecting through a slot in the box H², said handle enabling the operator to semi-rotate the box and its depending holder F, and thereby bring either side of the holder to the front, as shown in Figs. 4 and 5, thus causing the block
75 or carriage to move in a curve conforming either to the convex edge of the sole or the concave edge of the shank.

The block or carriage G is provided by preference with two burnishing-tools, Q Q, one
80 adapted to work on the sole-edge and the other on the shank-edge, said tools being attached to the block or carriage by forked arms R R on the tool-shanks R' R', passing through slots
85 S S in the holder F.

It will be seen that the semi-rotation of the box H and holder F, above described, also reverses the positions of the tools Q Q, bringing one to the position previously occupied by the other, said rotation being easily effected
90 while the machine is in operation.

In Figs. 1 and 2 I have shown a rest, T, for the face of the sole while the edge is being burnished. The rest is composed of a plate pivoted at its upper end to a shank, V, suitably
95 attached to the frame I. The pivot of the rest is located as near the working-face of the burnishing-tool as possible, and the shank V is so formed that the back of the rest is unobstructed, so that the operator's fingers can be placed
100 thereon, as shown in dotted lines in Fig. 1. The pivoted rest enables the operator to turn

the boot or shoe and rest together in presenting the toe portion of the sole to the tool, the pivot of the rest acting, as it were, as a pivot for the sole.

5 It will be seen that the employment of the pivoted rest enables the operator to perfectly control the sole while the toe portion is being burnished, the portion of the rest below the pivot constituting a lever for the operator to
10 grasp while turning the sole. The rest receives an outward yielding pressure by means of a spring, V^2 , applied to the inner end of the shank V , which shank is adapted to slide into and out of a socket in the frame I .

15 In the construction shown in Fig. 7 the reciprocating block or carriage G is provided with a tool-holder, A^2 , projecting through a slot in the bottom of the guide or holder F . This arrangement brings the burnishing-tool
20 in line with the shaft J , so that the tool will be less liable to displacement or breakage than when the tool is offset from said shaft.

I prefer to provide the shaft J with an oil-channel, D^2 , extending from its upper end to
25 the curved guide or holder F , so that the latter may be lubricated through the shaft. The upper end of the oil-channel is enlarged so that it will contain a supply of oil, which passes to the upper bearing of the shaft through holes
30 B^2 , filled with wicking. A valve, C^2 , is placed in the oil-channel to prevent more oil than is desired in the holder F from passing down the oil-channel. The lower bearing of the shaft J is lubricated through orifices F^2 , containing
35 wicking, and communicating with the channel D^2 .

Heretofore burnishing-machines have been provided with a reversible tool-holder, whereby tools of different shape for operating upon
40 different parts of the sole are held in a convenient manner to be brought into position for use without stopping the machinery.

nient manner to be brought into position for use without stopping the machinery.

I claim as my invention—

1. The combination of a curved frame or holder, F , containing and guiding in a curved
45 path a block or carriage, G , adapted to be reciprocated in said holder by means substantially as described, one or more burnishing-tools suitably connected to said carriage, and
50 a tubular box supporting said holder and journaled in a supporting-frame, said box being adapted to semi-rotate in its supporting-frame, and thereby bring either the concave or convex side of its curved holder to the front, as set forth.

2. The combination of a frame or holder, F ,
55 containing and guiding a block or carriage, G , two burnishing-tools, Q Q , connected, respectively, to opposite sides of the carriage, a tubular box, H , supporting said holder and journaled in a supporting-frame, and means, substantially as described, for reciprocating the
60 block or carriage in its holder, the box being adapted to semi-rotate in its supporting-frame, and thereby bring either burnishing-tool into
65 operative position, as set forth.

3. In an edge setting or burnishing machine, a rest or bearing, T , a shank, V , to which said rest is pivoted, and a spring, V^2 , for imparting
70 a yielding character to said shank and rest, combined and arranged to operate substantially as described.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 2d day of December, 75
A. D. 1880.

JAMES W. MALOY.

Witnesses:

C. F. BROWN,
W. CLIMO.