

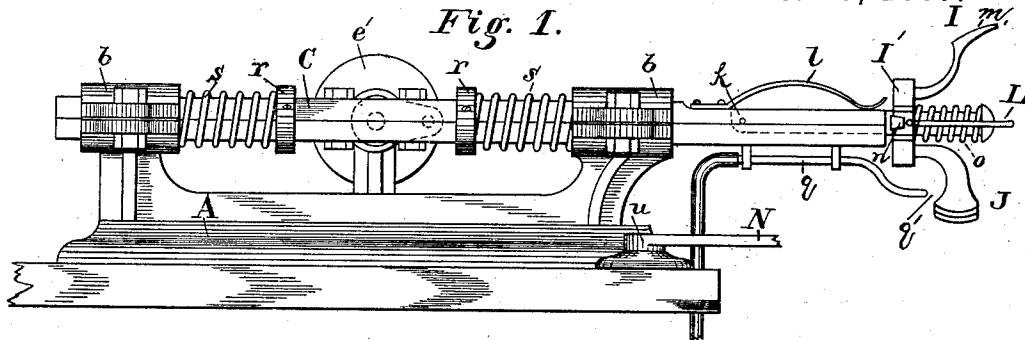
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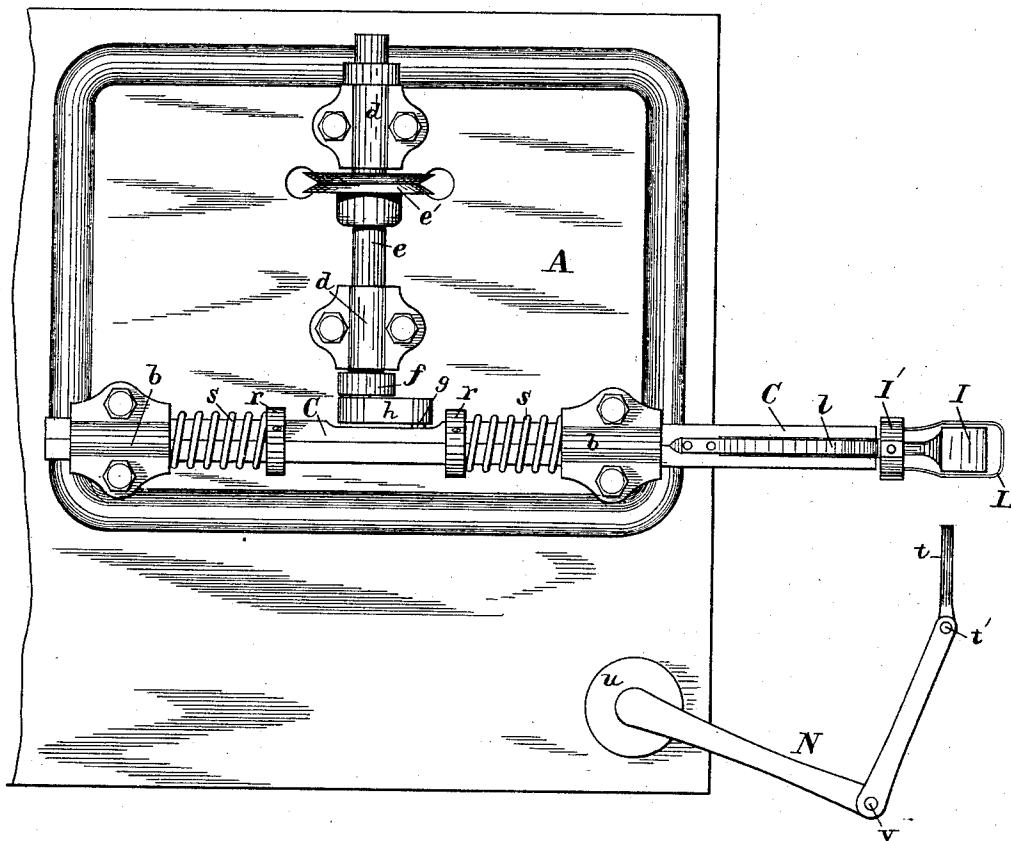
L. C. KENTON.  
SHOE SHANK BURNISHER.

No. 374,972.

Patented Dec. 20, 1887.



*Fig. 2.*



WITNESSES:

*R. L. Clemmitt.*  
*John E. Morris*

INVENTOR:

*Levi C. Kenton*

BY *Chas B. Mann*

ATTORNEY.

(No Model.)

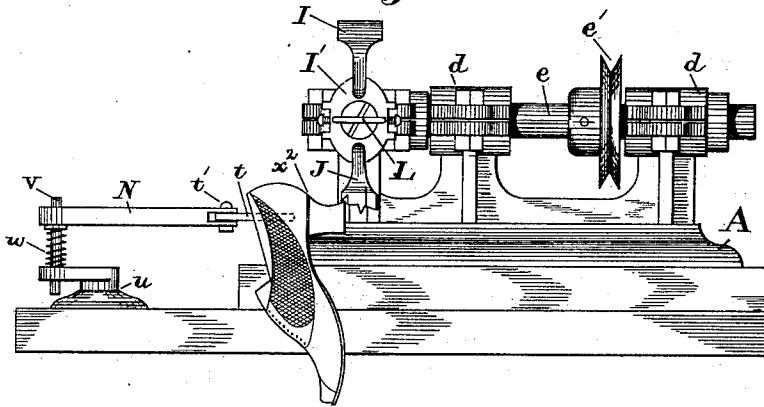
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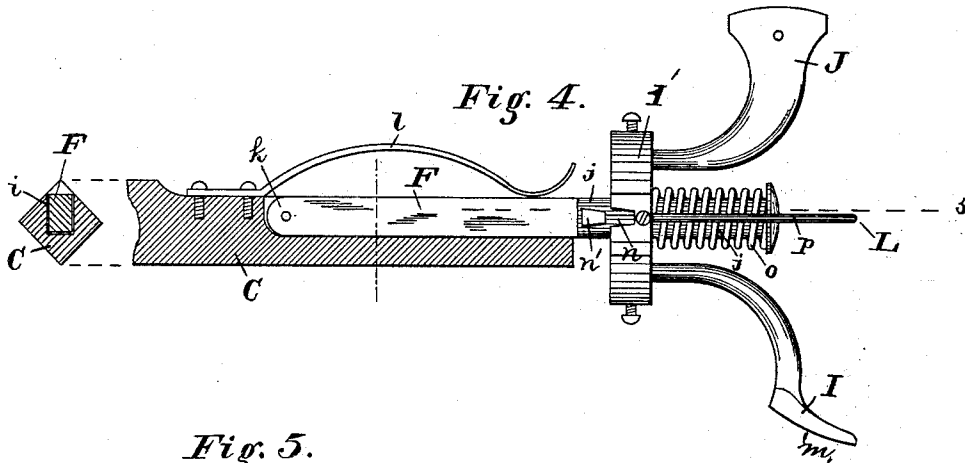
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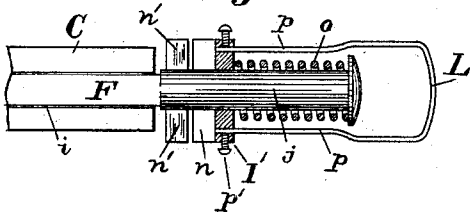
*Fig. 3.*



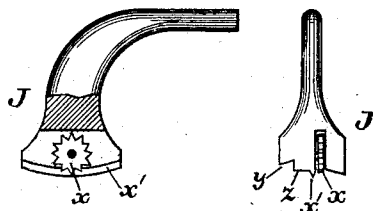
*Fig. 4.*



*Fig. 5.*



*Fig. 6. Fig. 7.*



WITNESSES:

*R. L. Clemmitt.*  
*John E. Morris*

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# UNITED STATES PATENT OFFICE.

LEVI C. KENTON, OF BALTIMORE, MARYLAND.

## SHOE-SHANK BURNISHER.

SPECIFICATION forming part of Letters Patent No. 374,972, dated December 20, 1887.

Application filed September 22, 1887. Serial No. 250,379. (No model.)

*To all whom it may concern:*

Be it known that I, LEVI C. KENTON, a citizen of the United States, residing at Baltimore, in the State of Maryland, have invented certain new and useful Improvements in Shoe-Shank Burnishers, of which the following is a specification.

This invention relates to an improved machine for burnishing the shanks and heels of shoe-soles, and is illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of the machine. Fig. 2 is a top or plan view of same. Fig. 3 is a front elevation of the machine. Fig. 4 is a detail view, larger scale, of the burnishing-tools. Fig. 5 is a top or plan view of the parts seen in Fig. 4 on the line 5. Figs. 6 and 7 are views of the heel burnishing tool.

The letter A designates the bed or table of the machine; *b*, bearings for the reciprocating burnishing-shaft C, and *d* bearings for the revolving drive-shaft *e*, which has a pulley, *e'*, by which motion is imparted to it and to the machine. At one end the drive-shaft *e* has a crank-head, *f*, and the reciprocating shaft C has a pin, *g*, while a link, *h*, connects the said crank-head and pin. It will be seen the revolving of the drive-shaft *e* will impart a reciprocating movement to the shaft C. The shaft C is square where it moves in its bearings *b*. At one end of the reciprocating shaft C is a burnishing-arm, F, one end of which is connected with the reciprocating shaft by a pivot-joint, *k*. The burnishing-arm rests by a longitudinal groove, *i*, on top of the said shaft. The burnishing-tools I J are carried on the arm, as hereinafter described. A spring, *l*, is made fast to the shaft, and its free end bears down on the pivoted arm F and resists any tendency of the arm to rise. When the shoe-shank is to be burnished, the workman will grasp the shoe and, by pressing it upward and laterally, bring its sole-shank against the edge *m* of the burnishing-tool I, which, when in use, must be lowermost. The rapid reciprocation of this tool with a short stroke does the work very effectually. If the workman press the shoe upward too hard, (that is, harder than would be productive of good results on the shank,) the spring *l* will yield and allow the tool I and arm F to be raised on the

pivot *k*. The arm F projects beyond the end of the reciprocating shaft C, and the said projecting end *j* is round. The tool-head I' has a central hole and fits loosely and is revoluble on the round end, and is also movable lengthwise of said round end. The tool-head has a side notch, *n*, and the arm has a lateral lug, *n'*, which takes into the said notch on the tool-head. A spiral spring, *o*, surrounds the projecting end of the arm and bears against the tool-head and presses it toward the lateral lug *n'*. Thus the spring *o* keeps the notch *n* and lug *n'* in engagement.

Two notches and lugs are shown in Figs. 4 65 and 5 of the drawings, and two may be used, though it is apparent that one would accomplish the end. A yoke, L, serves as a handle for shifting the tool-head, and comprises a rod bent to form two parallel sides, *p*, each of which has position on an opposite side of the arm end *j*, and is attached to the tool-head I' by a screw, *p'*. By grasping the handle or yoke part L, which has position in front of the end of the arm F, the operator may first pull, which will draw the tool-head and compress the spring *o* and disengage the notch *n* from the lug *n'*, and then the operator may give the yoke a half-turn, which will cause the tool-head to make a half-revolution on the arm F, and thereby change the position of the two burnishing-tools I J, one of which will be uppermost and the other lowermost.

A gas-pipe, *q*, supplies a jet-flame at *q'*, to bear on the lowermost tool and keep it hot.

The shaft C has two collars, *r*, secured to it between the bearings *b*, and two spiral springs, *s*, surround the shaft—one between each collar and the nearest bearing *b*. These springs prevent shock or loose vibration of the reciprocating shaft C, and consequently of the burnishing-tool.

The tool I is for burnishing the sole-shank of a shoe or any part of the sole, and the tool J is for burnishing the heel parts. To support the shoe while using this latter burnishing-tool, a jointed arm, N, having a last-prong, *t*, is used. The arm N is made in two sections, one of which is pivoted at *u* to the table and carries at its free end an upright pivot-stud, *v*, on which the other arm-section is jointed. A spiral spring, *w*, (see Fig. 3,) surrounds the

pivot-stud *v* and separates the two arm-sections. The upper arm-section rests upon the spiral spring *w*, and may be depressed or lowered on the pivot-stud *v* by the compression of the spring. The prong *t* is jointed to the arm at *t'*.

It will be seen all the joints of the arm *N*, which support the last-prong *t*, allow of movement in a horizontal plane. The prong *t* is to be inserted in a last, which is fitted into the shoe that is to be burnished, as shown in Fig. 3, and the arm sustains the shoe while the operator turns it on the prong as the burnishing-tool *J* is acting on it. The tool *J* is shown in Figs. 6 and 7. It has a wheel, *x*, and a guide-flange, *x'*, alongside of the wheel. The guide-flange is to traverse the crease *x''* in the shoe between the upper and heel, while the wheel acts on the upper part of the heel adjoining the crease. This tool also has a beveled face, *y*, which acts on the rear concaved part of the heel at the lower edge, and has a straight face, *z*, which may act on the sides of the heel and on the edge of the sole.

The shaft *C*, where it moves in the bearings *b*, is square; but it may be round, and it should fit and move with perfect freedom in the bearings. The crank-head *f* and link *h*, besides imparting a reciprocating movement to the shaft *C*, also causes said shaft to slightly rock or vibrate in the bearings *b*, which is productive of a good effect in the action of the burnishing-tool on the leather.

The spring *l*, which depresses the arm *F*, that carries the burnishing-tool, has a good effect, in that the tool is not held rigid and is more easy in acting on the leather, while at the same time it is effective.

While the springs *s* obviate shock or rough jar or loose vibration of the shaft and burnishing-tool, they do not hinder the movements of the shaft, but simply serve to "cushion" all movements.

Having described my invention, I claim and desire to secure by Letters Patent of the United States—

1. In a leather-burnishing machine, the combination of a reciprocating burnishing-shaft, *C*, bearing *b*, in which the shaft moves, a burnishing-tool attached to the shaft, and springs *s*, attached to the shaft and resting against the bearings.

2. In a leather-burnishing machine, the combination of a reciprocating burnishing-shaft, *C*, bearing *b*, in which the shaft moves, a burnishing-tool attached to the shaft, a revolving drive-shaft, *e*, having a crank-head, *f*, and a link, *h*, connecting it with the reciprocating shaft, and springs *s*, attached to the shaft and resting against the bearings.

3. In a leather-burnishing machine, the combination of a reciprocating burnishing shaft, *C*, bearing *b*, in which the shaft moves, an arm, *F*, connected at one end to the burnishing-shaft by a pivoted joint, *k*, a burnishing-tool attached to the said arm, and a spring, *l*, bearing on the arm to depress it.

4. In a leather-burnishing machine, the combination of a reciprocating burnishing-shaft having a projecting round end, *j*, and a lateral lug, *n*, a tool-head, *F'*, revoluble and movable lengthwise on the round end and provided with a side notch, *n*, a spiral spring, *o*, around the said end and bearing against the tool-head, and a yoke-handle, *L*, attached to the tool-head.

5. In a machine for burnishing leather, the combination of a burnishing shaft and tool, a jointed arm, *N*, having two sections, both of which move in a horizontal plane, and a last-prong, *t*, jointed to one section.

6. In a machine for burnishing leather, the combination of a burnishing shaft and tool, a jointed arm, *N*, comprising two sections, one of which is pivoted to the table at *u*, and has at its free end an upright pivot-stud, *v*, while the other section is jointed on the said stud, and a spiral spring, *w*, surrounds the pivot-stud and separates the two sections, and a last-prong, *t*, attached to the one section.

7. In a leather-burnishing machine, the combination of a reciprocating burnishing-shaft, *C*, bearing *b*, in which the shaft moves, springs *s*, attached to the shaft and resting against the bearings, an arm, *F*, connected at one end to the burnishing-shaft by a pivoted joint, *k*, a burnishing-tool attached to the said arm, and a spring, *l*, bearing on the arm to depress it.

In testimony whereof I affix my signature in the presence of two witnesses.

LEVI C. KENTON.

Witnesses:

JOHN E. MORRIS,  
JNO. T. MADDOX.