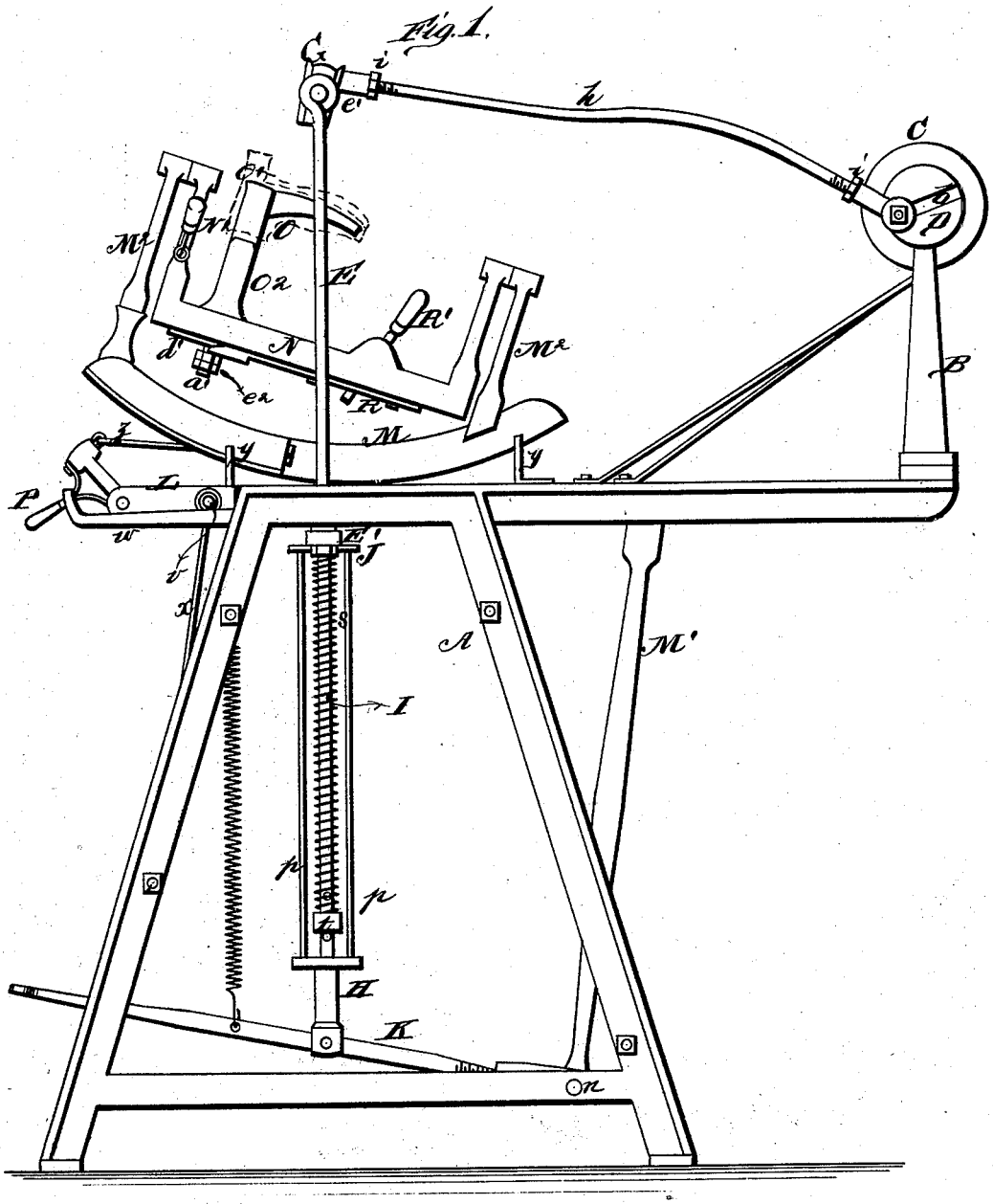
3 Sheets—Sheet 1.

J. WOODLEY.

Shank-Burnisher for Boots and Shoes.

No. 198,722. **Patented Dec. 25, 1877.**

Fig. 1.



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3 Sheets—Sheet 2.

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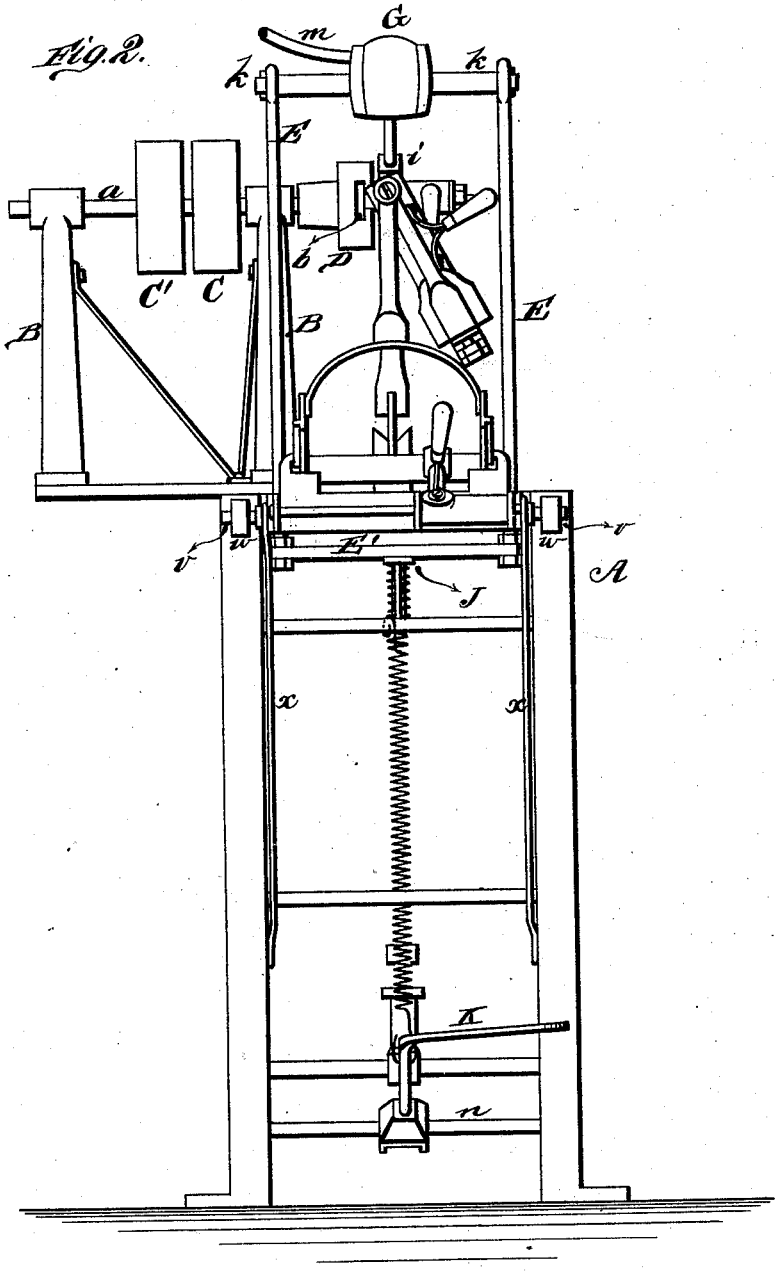
Fig. 2.



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3 Sheets—Sheet 3.

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Shank-Burnisher for Boots and Shoes.

No. 198,722. **Patented Dec. 25, 1877.**

Fig. 3.

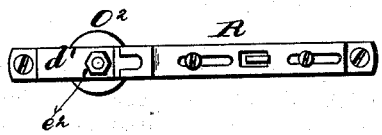


Fig. 4.

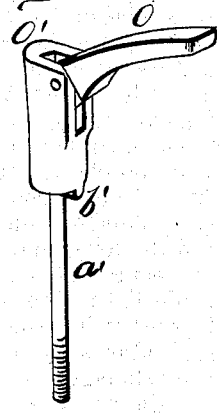


Fig. 6.

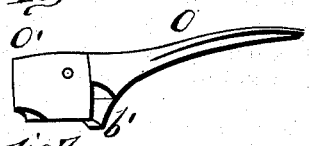


Fig. 7.

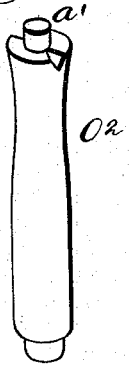


Fig. 8.

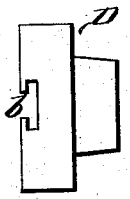


Fig. 5.

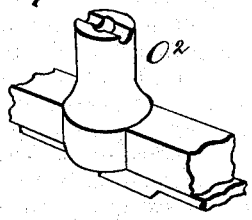
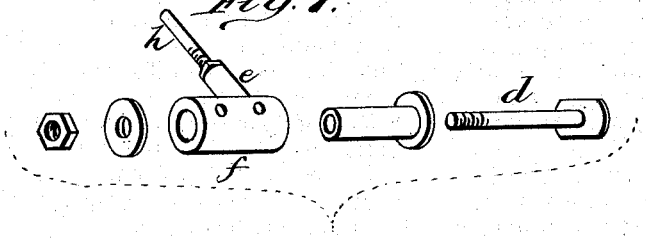


Fig. 9.



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ATTORNEYS

UNITED STATES PATENT OFFICE.

JAMES WOODLEY, OF QUEBEC, PROVINCE OF QUEBEC, CANADA.

IMPROVEMENT IN SHANK-BURNISHERS FOR BOOTS AND SHOES.

Specification forming part of Letters Patent No. **198,722**, dated December 25, 1877; application filed November 10, 1877.

To all whom it may concern:

Be it known that I, JAMES WOODLEY, of Quebec, in the county of Quebec, and Province of Quebec, Dominion of Canada, have invented a new and valuable Improvement in Shank-Burnishers for Boots and Shoes; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a side view of my shank-burnisher for boots and shoes. Fig. 2 is an end view. Fig. 3 is a view of the wedge; and Figs. 4, 5, 6, 7, 8, and 9 are perspective details thereof.

The nature of my invention consists in the construction and arrangement of a machine for burnishing the shanks and top pieces of boots and shoes, as will be hereinafter more fully set forth.

The annexed drawings, to which reference is made, fully illustrate my invention.

A represents the main frame of my machine, constructed in any suitable manner, to receive the various working parts hereinafter described. At one end of the frame are two posts, B B, suitably braced, and in the upper ends of said post is placed a shaft, *a*, having a fast driving-pulley, C, and a loose pulley, C′, to throw off the driving-belt when required to stop the machine. On the inner end of the shaft *a* is secured a disk, D, having a central T-shaped groove, *b*, in its outer face, for the attachment and adjustment of a headed stud, *d*, upon which is placed a loose sleeve, *f*. This sleeve is provided with a projecting boss, *e*, made hollow and tapped, in which is screwed a connecting-rod or pitman, *h*. The other end of this rod is screwed into a similar boss, e^1, formed upon the burnishing-tool G, which is provided with journals *k k*, having their bearings in the upper ends of two rods, E E. The connecting-rod or pitman *h* is adjusted longitudinally by being screwed in and out of the tapped bosses *e* e^1, and, when properly adjusted, is held rigid therein by means of jam-nuts *i i* screwed upon the rod against the ends of the bosses, as shown.

By adjusting the stud *d* closer to or farther from the center of the disk D, the stroke may be regulated as required.

The burnisher G is made of any suitable construction, and is hollow to receive a spirit or gas jet through a burner, *m*.

The two rods E E, which support the journals of the burnisher, are connected at their lower ends by a cross-bar, E′, from the center of which extends a rod, I, downward, and the lower end of this rod is placed loosely in a socket, H, pivoted to the treadle K, said treadle being pivoted at its inner end to a rod, *n*, in the lower part of the frame A. The socket H has projecting ears on opposite sides, which ears are, by rods *p p*, connected with a plate or collar, J, placed loosely on the upper part of the rod I. This rod I is surrounded by a spiral spring, *s*, the upper end of which bears against the plate J, and the lower end against an adjustable collar, *t*, secured on said rod I. By means of the treadle K the burnisher G is brought down on the work, while the spring-connection, as described, allows the burnisher to yield according to the shape of the work.

In the main frame A is a movable frame, L, supported at its rear end by a bar, M^1, pivoted to it, and to the rod *n* on which the treadle is pivoted. At the front end the frame L is supported by projecting pins or arms *v v* upon guide-bars *w w* projecting from the main frame. These pins or arms *v v* are, by pivoted rods X X, connected with the lower portion of the main frame, so as to be properly guided when the frame L is thrown forward or backward. This frame L carries a longitudinally-rocking frame, M, within which is a swinging frame, N, having the last O connected to it; and the object of moving the frame L backward and forward is to bring the last with the shoe or boot under the burnisher, and to remove it from the same for taking off the finished work and putting on new work.

The rocking frame M is curved on its under edges, and moves in guides *y y* on the frame L. It is operated by means of a lever, P, pivoted to the frame L, and connected by a rod, *z*, with the rocking frame.

On the rocking frame M are two upright standards, M^2 M^2, in the upper ends of which

is hung the swinging frame N, provided on one of its side arms with a projecting handle, N′, for operating the same.

The last O is provided with a tenon, which is inserted and pivoted in a heel-piece, O^1. This heel-piece is provided with a stem, a', which passes downward through a post, O^2, and through the bottom of the swinging frame. The heel-piece O^1 has also lips b' on its lower end, to fit in corresponding notches in the top of the post O^2, for holding it in position, and, when the last and heel-piece have been placed in position, they are held, by means of a sliding wedge, R, on the under side of the swinging frame. The end of this wedge is to grasp the stem a' between an inclined plate, d', and nuts e^2 screwed on the end of the stem, the plate d' being fastened to the under side of the rocking frame. The slide-wedge R is operated by means of a lever, R′.

Instead of forming the tips b' on the heel-piece O^1, as above described, I may make said heel-piece short, and form the lip on the inner end of the last, to take into a notch on the upper end of the post.

The operation is substantially as follows: The frame L is thrown forward, the rocking frame also moved forward, and the stem a' released, when the last O can be turned so as to put on the boot or shoe. The last is then brought into position and fastened by the sliding wedge R, and the frames thrown inward again. By means of the treadle K the burnisher is brought down on the boot or shoe, and its motion back and forth as well as rocking, combined with the various motions imparted to the last by the movements of the frames M and N, completely and thoroughly burnishes the shank in a rapid and efficient manner.

I claim—

1. In combination with a reciprocating and rocking burnishing-tool, a last supported in a rocking frame M, substantially as herein set forth.

2. The combination of a rocking frame, a swinging frame suspended in the rocking frame, and a last supported on the swinging frame, substantially as and for the purposes herein set forth.

3. The combination of a reciprocating and rocking burnishing-tool, a last-supported in a swinging frame, and a rocking frame in which the swinging frame is suspended, substantially as and for the purposes herein set forth.

4. The combination of the driving-shaft a, grooved disk D, adjustable stud d, sleeve f, with boss e, the journaled burnishing-tool G, with boss e^1, adjustable connecting-rod h, and the rods E, all constructed substantially as and for the purposes set forth.

5. The combination, with the rods E, carrying the journaled burnishing-tool G, and connected by a cross-bar, E′, of the rod I, socket H, treadle K, rods p p, collars J t, and spring s, all substantially as and for the purposes herein set forth.

6. The combination of the movable frame L, pivoted bar M′, arms v v, guides w w, and pivoted rods x x, as and for the purposes specified.

7. The combination of the movable frame L, guides y y, rocking frame M, lever P, and rods z, all substantially as herein set forth.

8. The combination of the frame N, post O^2, last O, heel-piece O^1, with stem a', inclined part b', and the sliding wedge R, all substantially as and for the purposes herein set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

JAMES WOODLEY.

Witnesses:

J. B. DELAGE,

JOSEPH BATES.