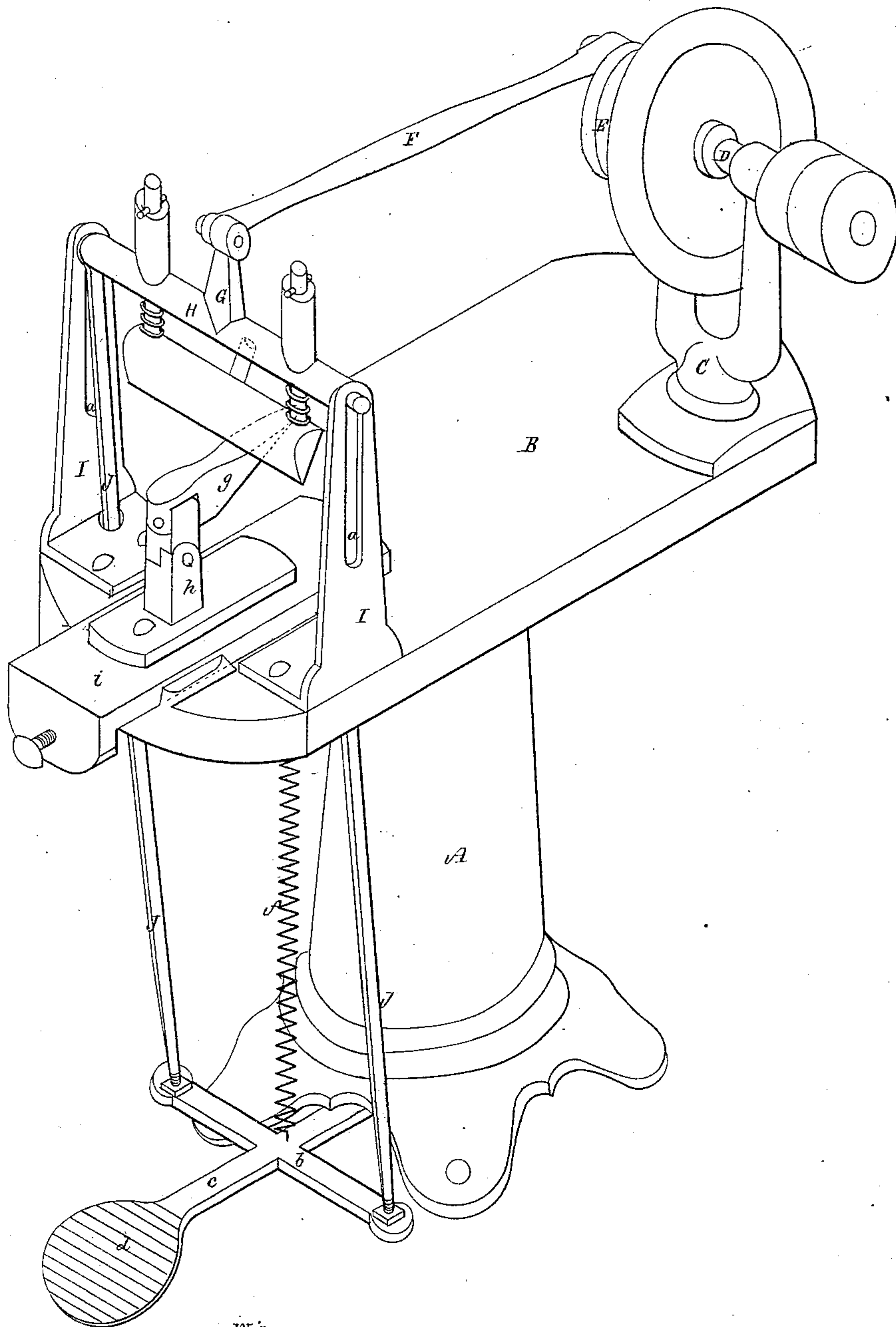


A. C. CAREY.

Machines for Burnishing the Shanks of Boots and Shoes.

No. 142,990.

Patented September 23, 1873.



Witnesses.

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UNITED STATES PATENT OFFICE.

AUGUSTUS C. CAREY, OF MALDEN, ASSIGNOR TO HIMSELF AND DEAN PEABODY, OF LYNN, MASSACHUSETTS.

IMPROVEMENT IN MACHINES FOR BURNISHING THE SHANKS OF BOOTS AND SHOES.

Specification forming part of Letters Patent No. **142,990**, dated September 23, 1873; application filed August 25, 1873.

To all whom it may concern:

Be it known that I, AUGUSTUS C. CAREY, of Malden, Middlesex county, Massachusetts, have invented certain Improvements in Machines for Burnishing the Shank Portion of the Soles of Boots and Shoes, of which the following is a specification:

On the 12th day of March, 1872, Letters Patent of the United States numbered 124,479 were issued to myself and James K. Blanchard and Frederick S. Hunt for a machine for polishing or burnishing the bottoms of the shanks of boot and shoe soles, the principle of which machine consisted in the employment of a burnishing-tool properly supported or mounted and operated, and moving in a reciprocating backward and forward path longitudinally of a stationary last or jack, which supported the boot or shoe. In practical operation of this machine, I have found that in "men's work," in which the sole is comparatively flat, the reciprocating burnisher is all that is desired; but in "women's work," in which the curvature or concavity of the sole is very much greater, the burnisher, traveling in a path nearly horizontal, does not adapt itself readily to such deep curvature or depression, but is liable to pass over without effectually burnishing some portions of the shank. To provide a remedy for this difficulty is the purpose of my present invention; and in carrying out the same I adopt a machine in general characteristics similar to that shown in Letters Patent before named, but I suspend the burnishing-tool over the "jack" from or upon a rocker-shaft, or otherwise apply it in connection with the jack in such manner that it shall when at work execute a series of short vibrations longitudinally to and fro of said jack, the burnisher being allowed vertical freedom of motion, and operated by a pedal or treadle, or its equivalent, whereby it is adapted to the depression of the shank, the whole being as hereinafter stated.

The drawing accompanying this specification represents a perspective view of a machine in which I have embodied the principle of a vibratory burnishing-tool in mechanism for burnishing shanks.

In this drawing, A represents an upright

pedestal, bearing at top a horizontal tablet or bed-plate, B, upon one rear corner of which bed-plate a standard, C, is erected, within the upper part of which a horizontal driving-shaft, D, is mounted, such shaft carrying upon its inner end a crank or crank-wheel, E, to the wrist-pin of which the rear end of a horizontal pitman, F, is pivoted, the front extremity of such pitman being in turn pivoted to a stud or boss, G, erected upon the center of a horizontal rock-shaft, H, which is mounted in vertical slots *a a* formed in perpendicular standards I erected upon the front end of the table B, the rock-shaft H being disposed at some considerable elevation above and transversely of the bed-plate, and parallel to the driving-shaft D. To each extremity or journal of the rock-shaft or beam H, I pivot the end of one of two rigid rods, J, the lower extremity of such rods being attached to opposite ends of a cross-bar, *b*, making part of a treadle or pedal, *c*, which is disposed at the base of the pedestal of the machine, and pivoted to the rear portion thereof in a suitable manner, the foot-rest *d* of such pedal being below the front end of the tablet B, and in a convenient position for the foot of the operator, the pedal, and consequently the rock-shaft and burnishing-tool, being elevated to their highest position by the action of a coiled spring, *f*, or its equivalent, which is secured to the pedal and tablet, as shown in the drawing.

The "jack" herein shown for supporting the boot is substantially the same as that shown in Letters Patent before referred to, and consists of a horizontal last, *g*, pivoted or swiveled to the upper part of an upright post, *h*, in such manner as to be susceptible of freedom of motion, either in a longitudinal tilting direction or a lateral rocking one, while the post *h* is mounted upon the top of a sliding rest or plate, *i*, disposed and sliding longitudinally upon the top of the tablet B and below the burnishing-tool, such plate *i*, and with it the jack or last, being so situated with respect to the said tool that the jack may be advanced toward the workman and from the immediate vicinity of such tool, in order to receive a boot, and having received a boot to be pushed back below the tool into such a po-

sition as to be operated upon by the latter when lowered in contact with it.

The operation of this machine will be readily understood, as it will be at once seen that the driving-shaft being in rotation, and the burnishing-tool describing a series of short vibrations, the workman has only to depress such tool into contact with the shank of the sole to effect the burnishing of the latter, the jack and boot being moved backward and forward, and tilted longitudinally or rocked laterally as the burnishing progresses, until all parts of the shank are equally well polished, the vertical variations of the tool throughout the curvature of such shank being governed by the treadle or pedal before named.

The burnishing-tool is to be heated by suitable means, that herein adopted being a gas-pipe entering a concavity of the tool, a jet or flame of gas imparting the desired heat to such tool.

I claim—

1. In mechanism for burnishing the shanks

of boot and shoe soles, the combination, with a jack for holding the boot or shoe, of a burnisher, located above or opposite to the sole of the jack, and vibrating upon an axis movable nearer to or farther from the jack, as occasion demands, and during the continuance of the vibratory movement of the burnisher, substantially as and for the purposes herein shown and described.

2. In mechanism for burnishing the shanks of soles, a jack, jointed to its support so as to be capable of being tilted in the direction of its length, as herein shown and set forth.

3. In mechanism for burnishing the shanks of soles, the combination, with a vibratory burnisher movable bodily toward and away from the jack, as described, of a jack capable of being tilted or rocked both longitudinally and laterally, substantially as shown and set forth.

AUGUSTUS C. CAREY.

Witnesses:

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