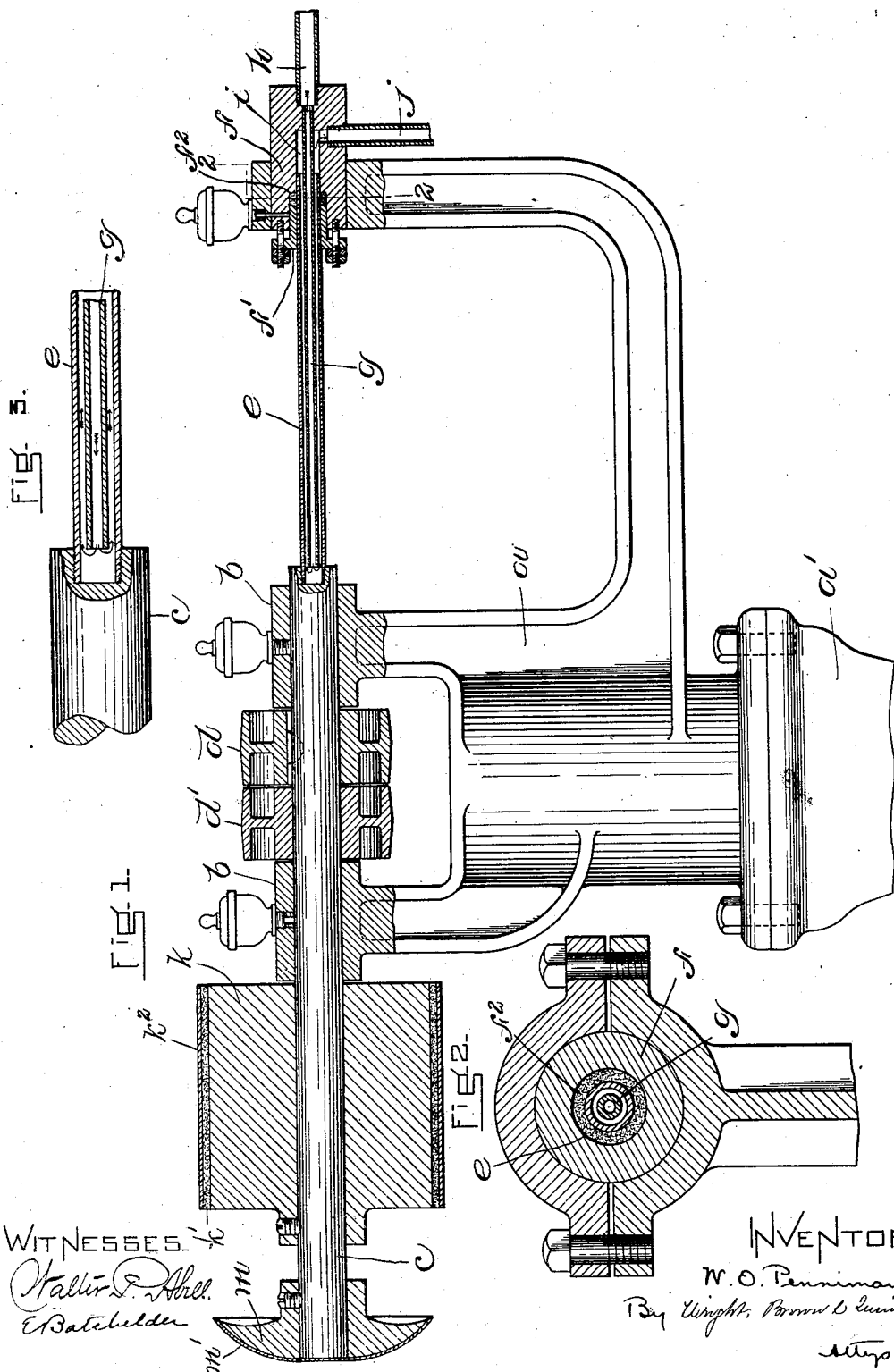


No. 739,922.

PATENTED SEPT. 29, 1903.

W. O. PENNIMAN.
LEATHER BURNISHING OR FINISHING MACHINE.
APPLICATION FILED DEC. 11, 1902.

NO MODEL.



UNITED STATES PATENT OFFICE.

WILLIAM O. PENNIMAN, OF MIDDLEBORO, MASSACHUSETTS.

LEATHER BURNISHING OR FINISHING MACHINE.

SPECIFICATION forming part of Letters Patent No. 739,922, dated September 29, 1903.

Application filed December 11, 1902. Serial No. 134,746. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM O. PENNIMAN, of Middleboro, in the county of Plymouth and State of Massachusetts, have invented certain new and useful Improvements in Leather Burnishing or Finishing Machines, of which the following is a specification.

This invention has for its object to provide a simple and effective machine for imparting a brilliant and durable gloss or burnish to leather articles, such as the bottoms of boot and shoe soles and heels.

The invention consists in the improvements which I will now proceed to describe and claim.

Of the accompanying drawings, forming a part of this specification, Figure 1 represents a side elevation, partially in section, of a machine embodying my invention. Fig. 2 represents a section on line 2 2 of Fig. 1. Fig. 3 represents an enlargement of a portion of Fig. 1.

The same reference characters indicate the same parts in all the figures.

In the drawings, *a* represents a supporting frame or head, which is mounted upon a standard *a'* and is provided with bearings *b b* for a shaft *c*. Said shaft may be driven by means of a belt running on a pulley *d*, affixed to the shaft, a loose pulley *d'* being provided beside the pulley *d*. To one end of the shaft *c* is rigidly affixed a tubular extension constituting an ironing-roll *e*, which extends in line with the shaft *c* and rotates therewith. The outer end of the roll *e* is journaled in a bearing *f*, which is formed as a stuffing-box and has an adjustable gland *f'* and packing *f''*, confined by said gland.

g represents a fixed steam-pipe, which is attached at one end to the body portion of the bearing *f* and projects into the roll *e* and extends practically the entire length of said roll. The pipe *g* receives steam from an inlet-pipe *h* and delivers the steam to the interior of the roll *e* at the end thereof, which is secured to the shaft *c*. There is an annular space between the interior of the roll *e* and the exterior of the pipe *g*, through which space the steam passes, as indicated by arrows in Fig. 4, the steam emerging into a chamber *i*, formed in the bearing *f*, and escaping through an outlet-pipe *j*, connected

with said chamber, the water of condensation also escaping through the pipe *j*.

It will be seen that the circulation of steam provided for as above described keeps the periphery of the roll *e* constantly uniformly heated at all points, so that the bottom of a boot or shoe sole or other article pressed against the roll *e*, the latter being rapidly rotated by its connection with the shaft *c*, raises a brilliant luster upon the surface, particularly when the latter has been treated with burnishing-wax or blacking. The roll *e* is surrounded between the bearings *b* and *f* by an unobstructed space, which permits the application of the sole or other part to be burnished to the periphery of the roll. In burnishing a waxed sole it is preferable to hold the shoe with the sole upward, so that the operator can watch it during the operation. The bearing *f* is therefore supported by an arm formed to afford an unobstructed space for the shoe below the roll *e*. The shaft *c* may have a roll *k* and a concave-surfaced disk *m*, the former having a felt cushion *k'* and a working cover *k''*, of leather, while the latter (the disk *m*) has a working cover *m'*, also of leather.

I claim—

1. A machine of the character stated, comprising a frame, a shaft journaled in bearings in the frame, means for rotating the shaft, a tubular roll affixed to one end of the shaft and extending in line therewith, said roll constituting an extension of the shaft and rotating therewith, an outer bearing for the outer end of the tubular roll, a steam-pipe affixed to the outer bearing and entering the roll, said pipe and the roll forming a steam-passage which delivers steam through the roll to the outer bearing, and means for conducting the steam and water of condensation from the outer bearing, the said roll being surrounded by an unobstructed space between said bearings, so that an article to be burnished can be applied to its periphery.

2. A machine of the character stated, comprising a frame, a shaft journaled in bearings in the frame, means for rotating the shaft, a tubular roll affixed to one end of the shaft and extending in line therewith, said roll constituting an extension of the shaft and rotating therewith, an outer bearing for the outer

end of the tubular roll, a steam-pipe affixed to the outer bearing and entering the roll, means for preventing the escape of steam between the outer bearing and the tubular roll, 5 and means for conducting steam and water of condensation from the outer bearing, the said roll being surrounded by an unobstructed space between said bearings, so that an arti-

cle to be burnished can be applied to its periphery. 10

In testimony whereof I have affixed my signature in presence of two witnesses.

WILLIAM O. PENNIMAN.

Witnesses:

J. FRANK TRIBEN,
ALBERT A. PENIMAN.