M. V. B. ETHRIDGE.

Boot and Shoe Burnishing Machine.

No. 212,093. Patented Feb. 11, 1879.

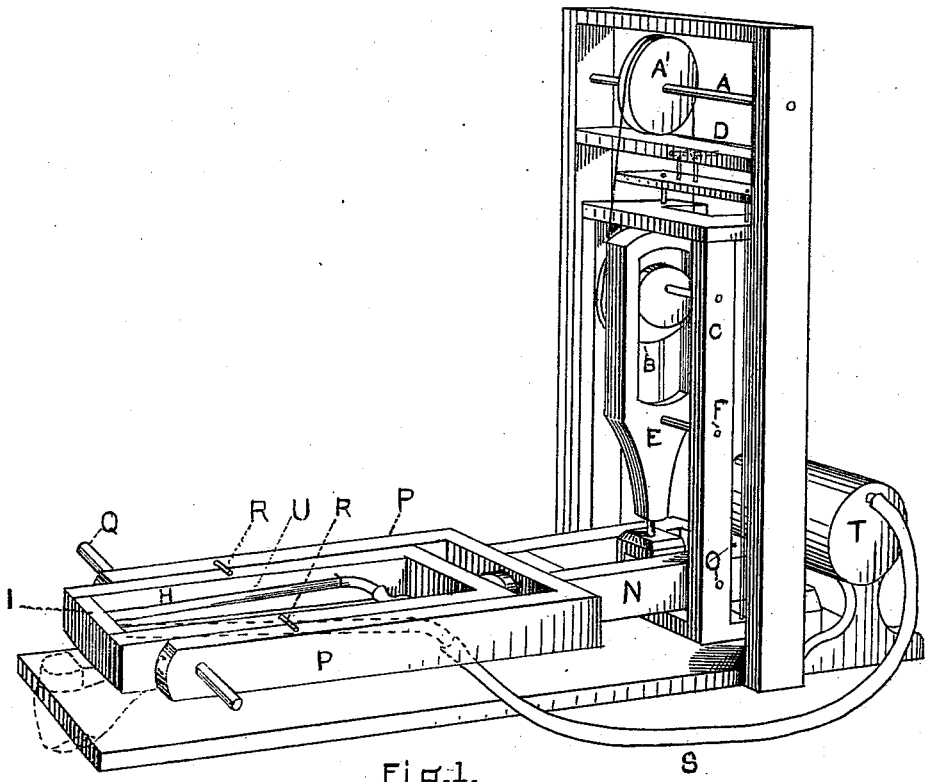

Fig. 1.

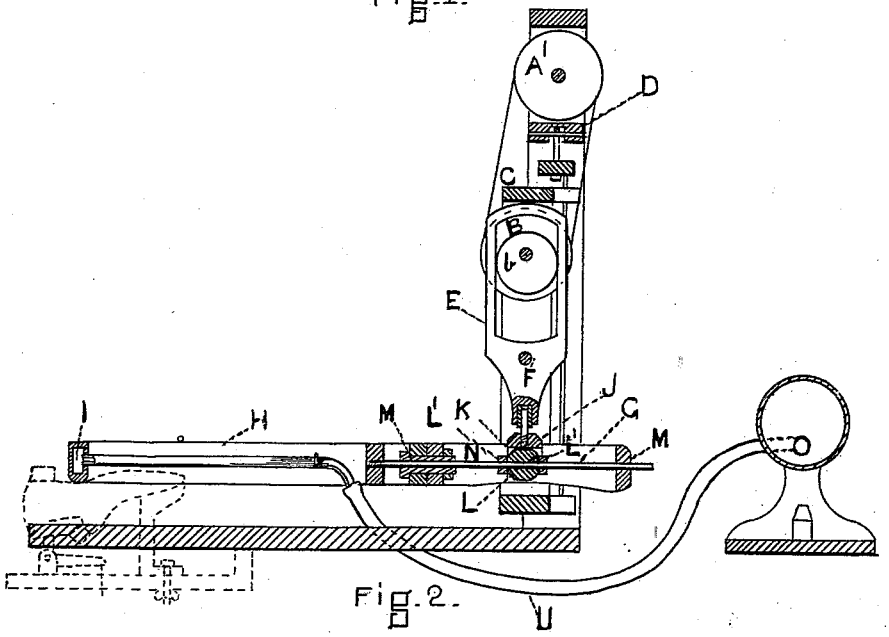

Fig. 2.

WITNESSES

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MARTIN V. B. ETHRIDGE, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN BOOT AND SHOE BURNISHING MACHINES.

Specification forming part of Letters Patent No. **212,093**, dated February 11, 1879; application filed March 1, 1878.

To all whom it may concern:

Be it known that I, MARTIN V. B. ETHRIDGE, of Boston, in the county of Suffolk and Commonwealth of Massachusetts, have invented an Improvement in Boot and Shoe Burnishing Machines, of which the following is a specification:

This invention is an improvement on the machine shown and described in Letters Patent No. 193,079, granted the said Ethridge and Frank N. Ethridge July 17, 1877; and it consists in an improved construction for operating and oscillating the burnishing-tool.

In the drawings, Figure 1 is a perspective view of the machine, and Fig. 2 is a longitudinal vertical section of the same.

The counter-shaft A carries a driving-pulley, A′, which operates the driven pulley B, having the eccentric *b*, and provided with bearings in the swinging frame C, which is loosely jointed to the cross-piece D.

The eccentric operates the slotted lever E, which is pivoted at F, as shown, to reciprocate the rod G, which carries at its end the frame H, supporting the burnishing-tool I, in order to give said tool suitable reciprocation.

The swinging movement of the lever is converted into a reciprocating motion by means of the yoke J, having a loose connection with the end of the lever, so that the lever may move freely thereon as it swings upon the arc of a circle. The said yoke is arranged to support the block K, which is pivoted thereon at L, as shown, to lay hold of and operate the said reciprocating rod, which is fastened thereto by means of the collars L, or in any other suitable way. This reciprocating rod is provided with bearings M in the tilting frame N, which frame is pivoted at O in the lower part of the swinging frame C.

It will be observed that it is desirable to make the above provision for the changing of the swinging movement of the lever into a reciprocating movement, such as is necessary to give the burnishing-tool, and that this alteration from a swinging movement to a reciprocating movement is accomplished by allowing the lever to ride loosely on the yoke, so that the end may lift and fall in relation to the path of the yoke as it oscillates.

Arranged to oscillate upon the shaft near its end is the frame P, in which the frame carrying the burnishing-tool reciprocates. This frame P is provided with the handles Q and the projections R for oscillating said reciprocating tool.

The burnishing-tool I, preferably, is somewhat rounded on its under surface to conform to that portion of the sole of the boot or shoe upon which it operates, and is heated by means of steam passed through the same by the flexible supply-tube S, leading from the small boiler I, located behind or below the operative parts of the machine, into the flexible return-tube U, which conveys the condensed steam or water back to the lower portion of said boiler.

The boiler is heated by a lamp or small stove placed under the same. By this arrangement the burnishing-tool is heated to a proper temperature, and that heat is maintained by a constant current of steam from the boiler, through the connecting or supply tube, burnishing-tool, and return-tube, to the base of the boiler.

It will be observed that by this construction the heated burnishing-tool is provided with universal adjustability in relation to the surface upon which it operates by simply taking hold of the handles and guiding the tool in the direction necessary.

I claim—

1. The combination of a suspended swinging frame carrying operative mechanism provided with lateral movement and supporting a tilting frame having bearings for a reciprocating shaft, a reciprocating heated burnishing-tool, and an oscillating frame provided with handles, when the said tool and frame are provided with means for oscillation at the end of the tilting frame upon or with the reciprocating shaft, substantially as and for the purpose described.

2. The combination of a tilting frame supporting a reciprocating shaft with a reciprocating heated burnishing-tool and a frame, P,

provided with handles, when the said tool and frame are provided with means for oscillation with or upon the said reciprocating shaft, operating said tool, substantially as and for the purpose described.

3. The combination of a lever actuated by an eccentric, a yoke having a loose connection with said lever, a box pivoted to said yoke to swing therein, and a reciprocating shaft having suitable bearings, whereby a rotary motion is converted into a reciprocating movement, substantially as described.

MARTIN V. B. ETHRIDGE.

Witnesses:

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