C. M. HALLER.

Boot and Shoe Polishing Machine.

No. 197,216. Patented Nov. 20, 1877.

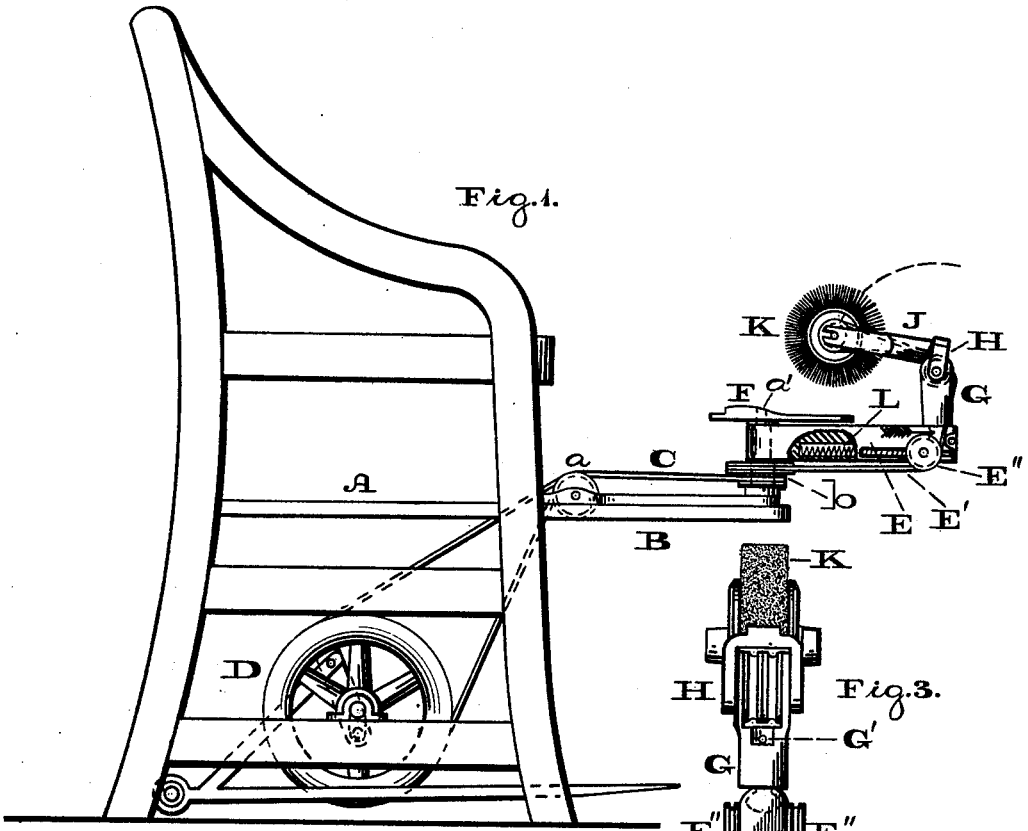


Fig. 1.

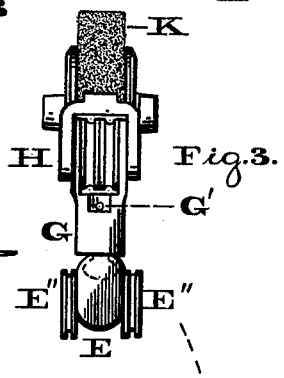


Fig. 3.

Fig. 2.

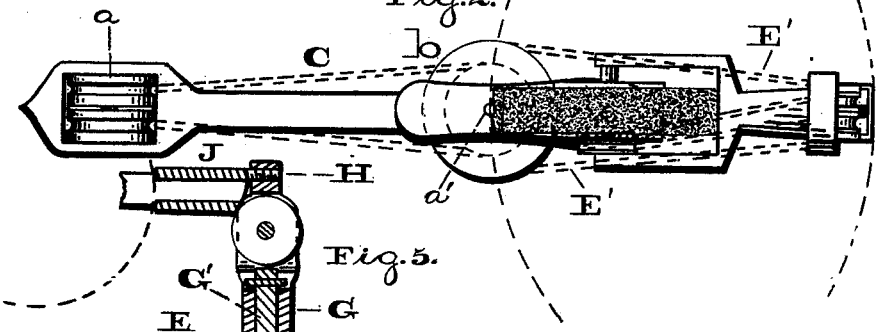


Fig. 5.

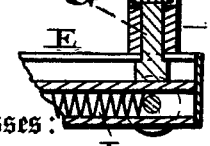
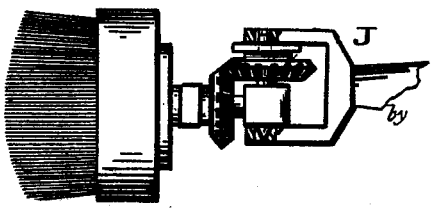


Fig. 4.



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UNITED STATES PATENT OFFICE.

CHARLES M. HALLER, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN BOOT AND SHOE POLISHING MACHINES.

Specification forming part of Letters Patent No. **197,216,** dated November 20, 1877; application filed April 25, 1877.

To all whom it may concern:

Be it known that I, CHARLES M. HALLER, of the city and county of Philadelphia, and State of Pennsylvania, have invented a new and useful Improvement in Apparatus for Polishing Boots and Shoes, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 is a side view of the apparatus embodying my invention. Fig. 2 is a top or plan view of a portion thereof. Fig. 3 is an end view thereof. Fig. 4 is a top view of a modification. Fig. 5 is a section of a portion shown in Fig. 2.

Similar letters of reference indicate corresponding parts in the several figures.

My invention consists of a rotary brush so mounted that it may be made to polish every portion of a boot or shoe.

It also consists in providing the band which communicates motion to the brush with means for taking up the slack due to the varying motions of the supports of the brush.

It also consists in making the shank by which the brush is directed of the form of a tube, or hollow, for the passage of the power belt or band of the brush, whereby the hand will be protected from said belt or band.

Referring to the drawings, A represents a chair or seat, which is provided in front with a platform or step, B, on which are mounted vertically-extending pulleys *a* and a horizontal pulley, *b*, over which pulleys *a b* passes a belt or band, C, which passes around a pulley, D, to which power will be communicated by a treadle, or other device or motor, in any suitable manner.

To the axial rod *a'* of the pulley *b*, or a rod coincident therewith, there is mounted an arm, E, and to said rod, above the arm, there is secured a foot-support, F, which is situated to be conveniently reached by the occupant of the chair A.

G represents a standard, which is of tubular form, and it is fitted on a rod, G', whose lower end is formed with a T-head, which engages with the walls of a way or channel in the arm E, so that said rod has a sliding motion, the standard rotating on the rod.

To the upper end of the standard there is pivoted a clevis, H, to which is pivoted one end of a hollow shank, J, whose other end is bifurcated, and has hung thereon the polishing-brush K, whose shaft carries a pulley, to which rotary motion will be imparted from a belt, E', passing through the shank J, around pulleys at the upper end of the standard G, around pulleys E'', mounted on the arm E, and around the horizontal pulley *b*, to which power is communicated from the belt or band C, as has been stated.

The pulleys E'' are mounted on the arm E by a sliding joint, and a spring, L, fitted to said arm presses the pulleys E'' in the direction from the axis of the arm, whereby, as the lengths of the belt E' pass around said pulleys, the belt will be held taut, and any slack thereof will be taken up.

It will be seen that the arm E has an axial motion on the step B, the standard G an axial motion on the bolt G', the bolt G' a sliding motion on the arm E, the clevis H an axial motion on the standard G, and the brush, by its shank J, an axial motion on the clevis, whereby a great variety of positions may be imparted to the brush.

The operation is as follows: Power will be imparted to the pulley D, whereby, by means of the endless belts C E' and the several pulleys, the brush K will be rotated. The operator grasps the shank J, and thereby directs the brush over the blacked boot or shoe placed on the rest or support F, and, owing to the jointed parts or axial motions of the several parts enumerated above, the brush may be freely moved, its axis being adapted to be placed in horizontal, vertical, and diagonal positions, so that the brush may be swung over the uppers, sides, and heels of the boots or shoes, and thus reach and polish every portion thereof.

It will be noticed that while the shank J is grasped the belt E' passes therethrough, and thus the hand will be protected therefrom.

It will also be noticed that while the brush is being operated the sliding motions imparted to the bolt G', which carries the axial standard G, will slacken the belt E', but the spring-pressed pulleys E'' immediately move forward or outward, and thus take up the slack.

In order to impart rapid motions to the brush, I may interpose between the brush and the pulley-shaft, which is mounted on the shank J,

gearing, as shown in Fig. 4; but the operation in other respects is similar to that hereinbefore specified.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The polishing-brush, in combination with the shank J, clevis H, standard G, and arm E, substantially as and for the purpose set forth.

2. The rotary standard G and sliding bolt G′, in combination with the arm E, substantially as and for the purpose set forth.

3. The brush K and belt E′, in combination with the arm E and spring-pressed pulleys E″, substantially as and for the purpose set forth.

4. The shank J, carrying the brush K, and made hollow for the passage of the belt E′, substantially as and for the purpose set forth.

5. The axial rod *a*′, forming the axis for the pulley *b* and arm E, and supporting the rest F, substantially as and for the purpose set forth.

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