

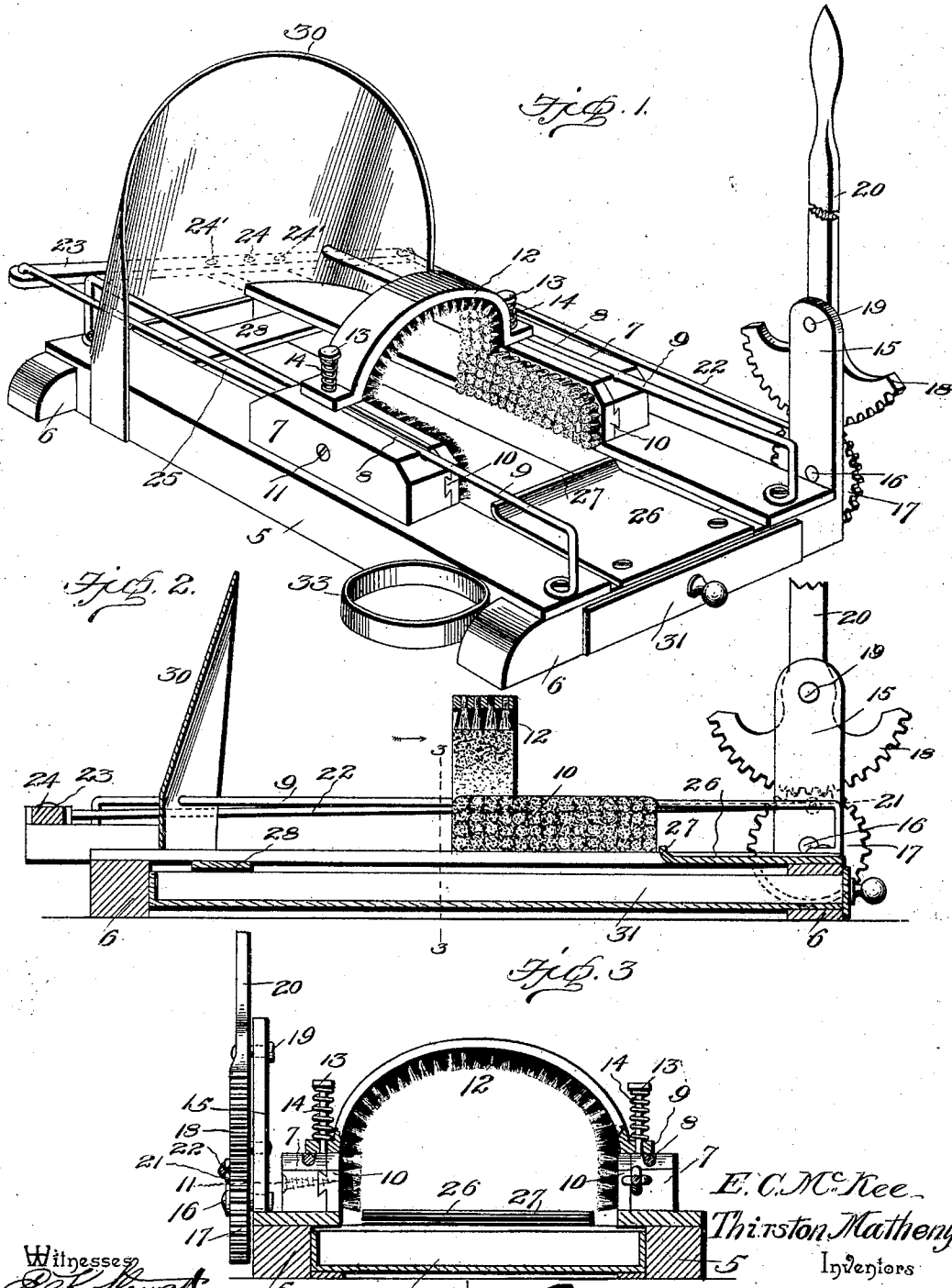
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Patented Feb. 18, 1902.

E. C. MCKEE & T. MATHENY.
SHOE CLEANING AND POLISHING MACHINE.

(Application filed Aug. 30, 1901.)

(No Model.)



Witnesses
E. C. McKee
T. Matheny

E. C. McKee
Thirston Matheny
 Inventors

by *Chas. H. ...*
 Attorneys

UNITED STATES PATENT OFFICE.

EMRICK C. MCKEE AND THIRSTON MATHENY, OF LUHRIG, OHIO.

SHOE CLEANING AND POLISHING MACHINE.

SPECIFICATION forming part of Letters Patent No. 693,531, dated February 18, 1902.

Application filed August 30, 1901. Serial No. 73,845. (No model.)

To all whom it may concern:

Be it known that we, EMRICK C. MCKEE and THIRSTON MATHENY, citizens of the United States, residing at Luhrig, in the county of Athens and State of Ohio, have invented a new and useful Shoe Cleaning and Polishing Machine, of which the following is a specification.

Our invention relates to certain improvements in machines for cleaning and polishing boots and shoes, and has for its principal object to construct an improved device of this kind which will thoroughly cleanse and polish a boot or shoe while on the foot and at the same time will permit the operator to remain in an erect position.

With this and other objects in view the invention consists in the novel construction and arrangement of parts hereinafter more fully described, shown in the accompanying drawings, and particularly pointed out in the appended claims.

In the accompanying drawings, Figure 1 is a perspective view of a boot cleaning and polishing machine constructed and arranged in accordance with our invention. Fig. 2 is a longitudinal sectional elevation of the same. Fig. 3 is a transverse sectional elevation of the device on the line 3 3, Fig. 2.

Similar numerals of reference indicate corresponding parts throughout the various figures of the drawings.

The base or frame of the device comprises a pair of longitudinal side bars 5, united at their opposite ends by transverse bars 6 in such manner as to form an open rectangular frame of sufficient strength for the purpose for which it is intended.

Mounted on the side bars 5 and free to slide thereon are brush-frames 7, each having in its upper face a longitudinal groove 8 for the reception of a guide-rod 9, the opposite ends of which are bent downwardly and secured to the side bars 5 at points near the opposite ends of the same. The side frames 7 have grooved faces for the reception of the correspondingly-shaped backs of brushes 10, the brushes being of any desired quality and interchangeable, so that they may be readily replaced when worn. The brushes after being adjusted in position in their respective

supporting-frames are locked therein by set-screws 11 or in any other suitable manner. These brushes are designed to travel longitudinally on the side bars 5 and to brush the sides of the shoe from end to end, the bristles of the brush being of sufficient length to permit the yielding necessary to secure contact with all portions of the shoe sides.

To brush the upper portion of the shoe, there is provided a curved brush 12, having at its opposite ends suitable openings for the passage of studs or bolts 13, carried by the side frames 7, the bolts being provided with compression-springs 14, which will permit of the yielding of the brush and will at all times keep the same in contact with the shoe. The brush may be narrow, or it may be of sufficient width to cover a considerable portion of the upper, and the springs may be arranged in any suitable manner to permit of the proper yielding when the shoe is being brushed.

At the rear of the machine there is secured a standard 15, having a stud 16, on which is journaled a pinion 17, and gearing with this pinion is a segmental rack 18, mounted on a stud 19 and secured to or forming part of a handled lever 20 of any suitable length. The pinion 17 is provided with a crank-pin 21, from which extends a connecting-rod 22 to a rock-lever or walking-beam 23, pivoted at the opposite end of the lever 23 is connected by a rod 25 to one of the side brush-carrying frames 7, to which a reciprocatory motion is given by the operation of the lever 20, the degree of reciprocation depending on the size of the pinion 17 and the pivotal point of the rock-lever 23, and the latter for the purpose of adjusting the stroke of the brushes may be provided with several openings 24', in any one of which the pivot-pin may be entered.

Secured to the rear bar 6 of the base is a heel-plate 26, having an upwardly-bent front edge 27 to form a scraper for the removal of dirt from the sole of the shoe. At the front end a cross-plate 28 is arranged to form a rest for the toe portion of the shoe.

The front end of the machine is partly closed by a dust-shield 30, and this shield may be provided with suitable openings for the passage of the various rods 9 and 25. Between

the side bars 5 and extending for the full length of the base is a suitable dust-pan 31, which may be removed from the rear of the machine whenever necessary. To one of the side bars 5 is secured a suitable supporting-ring 33 for the reception of a box of blacking.

In the operation of the device the shoe or boot is placed on the foot-rest 26 and 28, while the operator, standing in an erect position, oscillates the lever 20, causing through the gearing, the rod 22, the walking-beam 23, and the rod 25 the reciprocation of the brushes in contact with the sides and front portion of the upper, said brushes being moved simultaneously in the same direction and the curved upper brush 13 yielding vertically in accordance with the varying height of the front of the shoe or boot.

Various changes in the proportions, size, and minor details of the structure may be made within the scope of the claims without departing from the spirit or sacrificing any of the advantages.

Having thus described our invention, what we claim is—

1. In a device of the class described, the combination of the base, guides arranged above said base and parallel therewith, brush-carrying frames slidable on the base and having upper grooved faces for the reception of the guides, brushes detachably secured in said brush-carrying frames, a yieldable upper brush connected to and movable with the brush-carrying frames, foot-supports, and

mechanism for reciprocating the brushes, substantially as specified.

2. In a device of the class described, the combination of the base, brushes guided thereon, an operating-lever having at its lower end a toothed segment, a pinion intermeshing with said segment, a crank-pin on said pinion, a rock-lever pivoted intermediate of its length, a connecting-rod extending between one end of said lever and the crank-pin, and a connecting-rod extending between the opposite end of said lever and the brushes, substantially as described.

3. In a device of the class specified, the combination with an open rectangular base, of guiding-rods 9, brush-carrying frames 7 slidable on the base and having upper grooved faces for the reception of the rods 9, a curved upper brush 12 extending between the brush-frames 7, springs 14 acting to depress said curved brush, an operating-lever operably connected to the brush-carrying frame, a dust-shield at one end of the machine, and supports carried by the base for the reception of the shoe or boot to be cleaned.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in the presence of two witnesses.

EMRICK C. MCKEE.
THIRSTON MATHENY.

Witnesses:

W. E. PETERS,
R. ROSSLAND.