Sept. 8, 1925. 1,553,221

G. H. CRUMPTON

SHOE POLISHER

Filed July 23, 1923 2 Sheets-Sheet 1

Fig. 1.

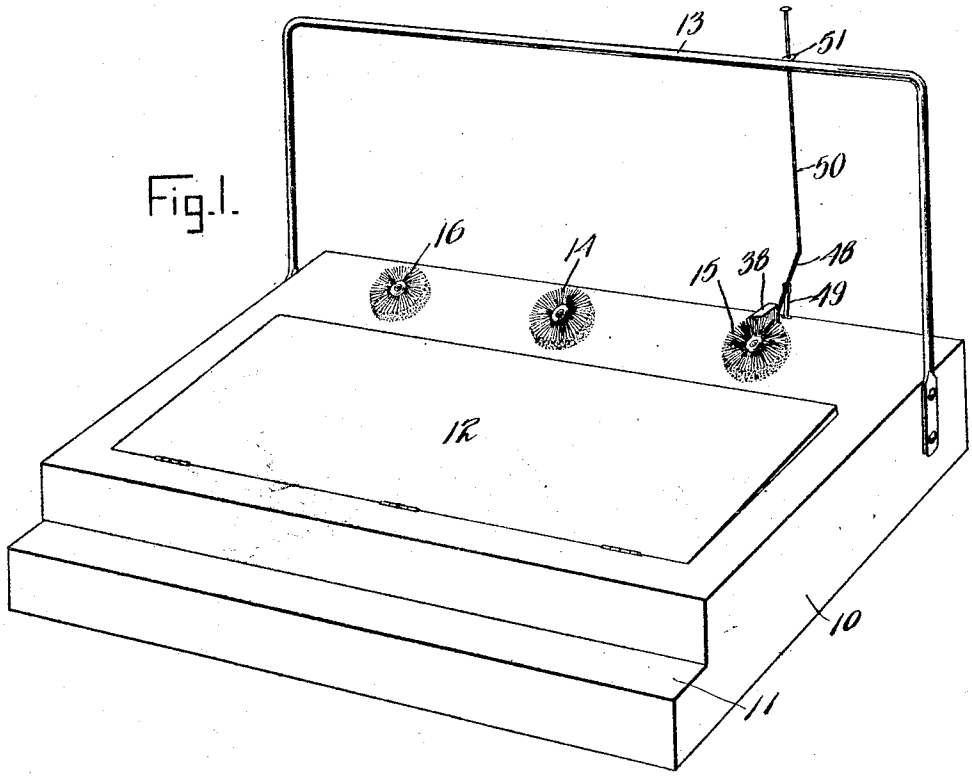


Fig. 2.

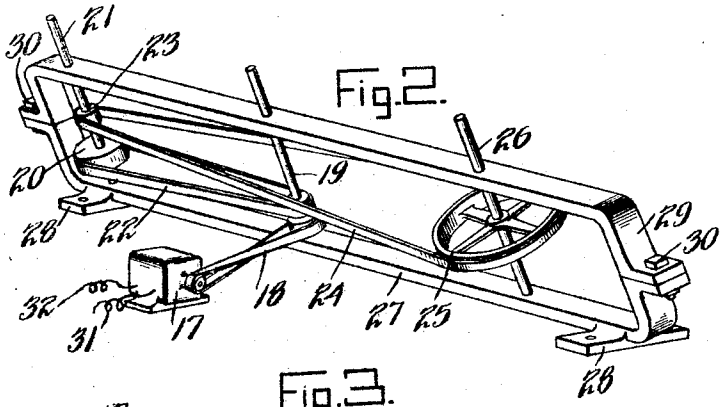
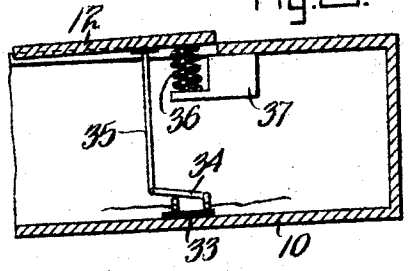


Fig. 3.



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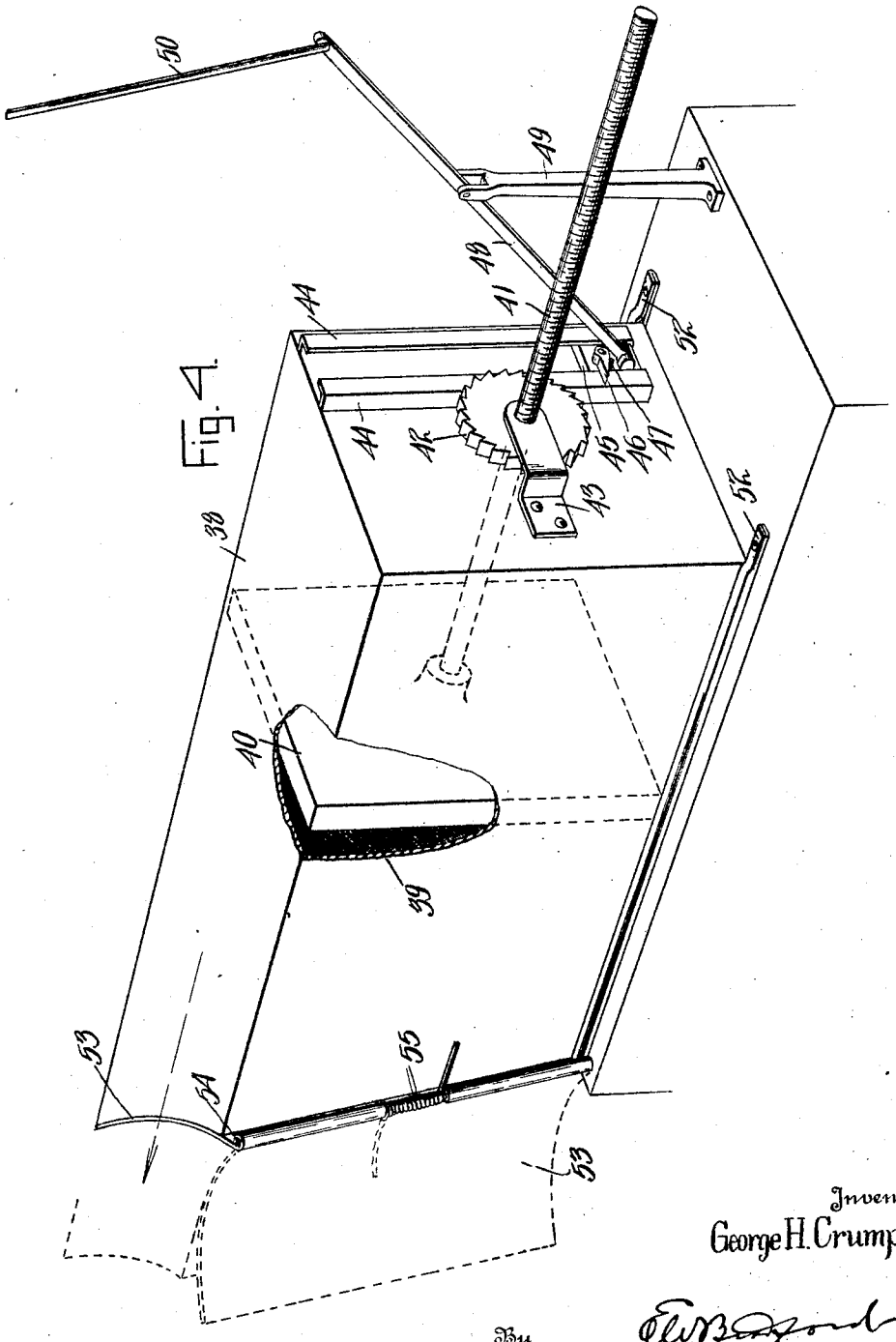


Fig. 4.

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UNITED STATES PATENT OFFICE.

GEORGE H. CRUMPTON, OF BUNTYN, TENNESSEE.

SHOE POLISHER.

Application filed July 23, 1923. Serial No. 653,326.

To all whom it may concern:

Be it known that I, GEORGE H. CRUMPTON, a citizen of the United States, residing at Buntyn, in the county of Shelby and State of Tennessee, have invented certain new and useful Improvements in Shoe Polishers, of which the following is a specification.

My said invention relates to a shoe polisher and it is an object thereof to provide means whereby shoe polish may be applied to a shoe and the proper gloss imparted thereafter in a clean and expeditious manner. A further object is to provide a brush for applying polish to the shoes and means normally out of contact therewith for supplying polish to the brush.

Another object is to provide separate means for cleaning shoes, applying polish thereto and thereafter shining the shoes.

A further object is to provide means for driving the devices referred to in the foregoing paragraph at different speeds such as will lead to efficient action on the part of each.

Still another object is to provide a supply of polishing material and a casing normally closed on all sides to protect said material from the weather or other detrimental agencies.

Referring to the accompanying drawings, which are made a part hereof and on which similar reference characters indicate similar parts,

Figure 1 is a perspective of my completed machine,

Figure 2, a perspective of the driving gearing for the brushes,

Figure 3, a partial transverse section of the casing of the machine, and

Figure 4 a perspective of the container for polish, on an enlarged scale.

In the drawings reference character 10 indicates the casing of the machine having at its front end one or more steps 11 leading to a platform which includes a trap door 12 by means of which convenient access is afforded to the interior of the casing and which has other functions hereinafter described. At the rear end of the casing is a hand rail 13 underneath and in front of which are three brushes. The brush indicated at 14 is intended for cleaning the shoes by removing dirt and dust therefrom, the brush at 15 applies polish to the shoes and has located adjacent thereto a polish supplying means; while the brush at 16 is intended to shine the shoes in well-known manner after the polish has been applied thereto.

In Figure 2 I have illustrated the driving means for the various brushes. Such driving means is contained in the casing 10 and comprises an electric motor 17 driving a belt 18 which passes over a pulley on shaft 19. A similar pulley on the same shaft is connected to a pulley 20 on shaft 21 by belt 22 for driving the shoe shining brush and shaft 21 also carries a small pulley 23 connected by a belt 24 to a large pulley 25 on the shaft 26 of the polish applying brush 15. It will be seen that the brush 14 for removing the dirt is driven at a moderate speed lower than that of the motor shaft, the brush 16 is driven at a high speed for shining the shoes and the brush 15 at low speed for applying polish in an efficient manner. The shafts 19, 21 and 26 are supported in a two-part bracket comprising a lower bowed portion 27 having laterally extending feet 28 and an upper bowed portion 29 the two portions being connected by bolts 30 at their ends where they have parallel flat outward extensions perforated to receive such bolts.

The motor 17 above referred to is driven by any convenient circuit comprising wires 31 and 32. A switch 33 is interposed in the circuit. This switch has a movable member 34 connected by a bar 35 to the trap door 12, the bar here being shown as being rigidly fixed to the trap door so as to extend vertically downward therefrom. A spring 36 bears at one end on a bracket 37 within the casing and at the other end against the underside of the door 12 to hold the door normally in slightly raised position.

Adjacent the brush 15 I have located a casing 38 within which there is a block of shoe polish 39 which may be of any conventional or preferred color or character. At the rear of the block 39 a slidable head 40 is arranged in the casing said head having a rod 41 fixed thereto and extending out through a hole at the rear end of the casing. At its outer end the rod is threaded as shown and a ratchet 42 is mounted to rotate about the rod, this ratchet being internally threaded and forming in effect a nut mount-

ed to coact with the threaded part of the rod 41 for moving the head 40 lengthwise of the casing. A bracket is secured to the casing and has an opening through which the rod 41 passes, this bracket serving as a guide for the rod and also serving to hold the ratchet in proper position. At the rear end of the casing 38 there are a pair of parallel guides 44 between which is located a block 45 carrying a pivoted pawl 46. A stop 47 is provided at one side of the pawl and a lever 48 is pivoted to the block and also to a standard 49 spaced from the end of the casing. A manual operating bar 50 extends upward from the free end of the lever through a guide 51 on the hand rail 13.

The casing 10 is provided adjacent the brush 15 with parallel guides 52 and the casing 38 has lateral flanges (not shown) fitting in these guides. The forward end of the casing 38 is cut away to correspond to the shape of the brush as indicated in Figure 4 and a door 53 curved to conform to the curved upper and lower edges of the casing is pivoted on a post 54 on the casing 10. A coil spring 55 surrounds the post 54 and bears at its free ends against the casing and the side of the door respectively to force the door toward the closed position. As indicated in Figure 4 the block of polish 39 is curved at the forward edge to correspond to the circumference of the brush and to the shape of the door.

In the operation of my device the customer will step on the trap door 12 and his weight will force the door down and close the circuit at 34, it being understood of course that any other desirable circuit closer to be operated by the customer or an attendant may be substituted for the one here shown. He will then hold his feet first against the brush 14 for cleaning the shoes, then against the brush 15 for applying polish, and then against the brush 16 for shining the shoes. The brush 15 may have sufficient polish on it for the purpose but if not the rod 50 is forced down whereupon the block 45 moves upward in its slot forcing the casing 38 toward the brush 15 and thereby causing the periphery of the brush to engage the block 39 of polish which projects slightly beyond the front end of the casing. In its forward movement the door 53 is pushed out of the solid-line position shown in Figure 4 where the casing is open for free contact of the block 39 with the brush. When the bar 50 is released the block 45 is forced down by gravity and the casing 38 is returned to position, such action being assisted if necessary by a spring acting on the lever 48 or on the casing 38. It may be noted that when the block rises the pawl 46 will engage the ratchet and turn the same to a certain extent thereby forcing the block of polish forward in the casing 38. Such action is rendered positive by the stop 47 beneath the pawl whereas on the return movement the pawl moves on its pivot and slips over the teeth of the ratchet.

It will be evident to those skilled in the art, that various modifications may be made in my device without departing from the spirit of my invention and therefore I do not limit myself to the specific embodiment of the invention shown in the drawings and described in the specification but only as indicated in the appended claims.

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

1. In a shoe polisher, a rotary brush, a casing adjacent thereto, a mass of polish in the casing, means normally closing the casing, and manually operable means for moving the casing toward the brush and for advancing the polish in the casing, substantially as set forth.

2. In a shoe polisher, a rotary brush, a casing adjacent thereto, a mass of polish in the casing, means normally closing the casing, and a lever having means associated therewith adapted to move the casing toward the brush and advance the polish in the casing, substantially as set forth.

3. In a shoe polisher, a rotary brush, a normally closed container for polish adjacent thereto, and means for advancing the container to open the same, said means being also adapted to move the container in closer proximity to the brush for supplying polish thereto, substantially as set forth.

4. A device for polishing shoes comprising a closed casing, a plurality of shafts mounted within the casing and having cleaning and polishing brushes on their upper ends without the casing, pulleys on said shafts, means connecting said pulleys for driving said brushes at different speeds, and a housing for polish adjacent one of said brushes having means associated therewith for moving the housing toward the brush for opening the housing and for advancing the polish in the housing, substantially as set forth.

5. In a device for polishing articles a polish applying element, a container for polish adjacent the polish applying element, a normally closed door for said container, and means adapted to simultaneously move the container toward the polish applying element to open the door and to expel the polish from the container, substantially as set forth.

6. A shoe polisher comprising a platform, a hand rail at the front end thereof, a brush for applying polish to a shoe, means for driving the brush, means for applying polish to the brush comprising a slidably mounted polish container having means for expelling polish therefrom, and connections from the hand rail to the polish supplying

means for moving the polish container toward the brush and for expelling polish therefrom, substantially as set forth.

7. A shoe polisher comprising a platform, a hand rail at the front end thereof, a brush for applying polish to a shoe, means for driving the brush, means for applying polish to the brush comprising a slidably mounted polish container having means for expelling polish therefrom, connections from the hand rail to the polish supplying means for controlling the same, a guide on the hand rail, a rod movable in the guide, and connections from said rod to the polish supplying means for moving the polish container toward the brush and for expelling polish therefrom substantially as set forth.

8. In a shoe polisher, a rotary brush, a casing adjacent thereto, a mass of polish in the casing, means normally closing the casing, means whereby the casing may be moved to a position adjacent the brush, and means for simultaneously opening the casing at the side next to the brush for exposing the block of polish, substantially as set forth.

9. In a shoe polisher, a rotary brush, a casing adjacent thereto, a block of polish in the casing, means normally closing the casing, means whereby the casing may be moved to a position adjacent the brush, means for opening the casing during such movement at the side next to the brush for exposing the block of polish, and step-by-step operating means for moving the block forward in the casing, substantially as set forth.

10. In a shoe polisher, a platform, a rotary brush, a casing slidable on the platform toward and from the brush, means in the casing for supplying polish to the brush, a door normally closing the casing, and means for opening the door as the casing approaches the brush, substantially as set forth.

11. In a shoe polisher, a platform, a rotary brush, a casing slidable on the platform toward and from the brush, means in the casing for supplying polish to the brush, a door pivoted on the platform and normally closing the casing, means for opening the door as the casing approaches the brush, and for closing it on return of the casing, substantially as set forth.

12. In a shoe polisher, a platform, a rotary brush thereon, a casing for applying polish to the brush slidably supported on the platform, a lever on the platform, guides at the rear end of the casing, a block in said guides, and connections between the lever and the block whereby the casing may be moved toward and from the brush, substantially as set forth.

13. In a shoe polisher, a platform, a rotary brush thereon, a casing for applying polish to the brush slidably supported on the platform, a block of polish in the casing, means for moving said block longitudinally of the casing, a lever on the platform, guides at the rear end of the casing, a block in said guides, connections between the lever and the block whereby the casing may be moved toward and from the brush, and connections between said block and the polish moving means whereby the latter may have forward movement relative to the casing, substantially as set forth.

14. In a shoe polisher, a rotary brush, a casing movable toward and from the brush, a mass of polish projecting from the casing, a lever connected to the rear end of the casing for moving said casing back and forth, and means for moving the polish relatively to the casing including a ratchet on the casing and a pawl operated by the lever for turning the ratchet, substantially as set forth.

15. In a shoe polisher, a rotary brush, a casing movable toward and from the brush, a block of polish projecting from the casing, a lever connected to the rear end of the casing for moving said casing back and forth, and means for moving the block of polish relatively to the casing including a head at the rear of said block, a screw fixed thereto, a ratchet on the screw, and a pawl moved by said lever to turn the ratchet, substantially as set forth.

16. A device for applying polish to a polish applying element comprising a slidably mounted casing, a piston reciprocable in said casing having a threaded rod extending through the rear end of said casing, a ratchet threaded on said rod and held in fixed spaced relation with reference to said casing, guides on said casing adjacent said ratchet, a block in said guides, a pawl carried by said block and adapted to engage and rotate said ratchet for moving the rod and piston longitudinally of the casing, and a lever pivotally supported in a plane substantially perpendicular to the upper portion of said guides and having pivotal connection with said block for moving the casing toward the polish applying element and for advancing the polish in the casing, substantially as set forth.

17. A device for applying polish to a polish applying element comprising a slidably mounted casing, means in said casing for expelling polish therefrom, a block slidable in a plane parallel to the end of the casing, means associated with said block for actuating the polish expelling means, and a lever pivoted to said block for moving the casing toward the polish applying element substantially as set forth.

In witness whereof, I have hereunto set my hand and seal at Long Beach, Calif., this sixteenth day of July, A. D. nineteen hundred and twenty-three.

GEORGE H. CRUMPTON. [L. S.]