Oct. 7, 1947. E. A. THIELEN 2,428,476

SHOE SHINING MACHINE

Filed March 19, 1945 2 Sheets-Sheet 1

Fig. 1

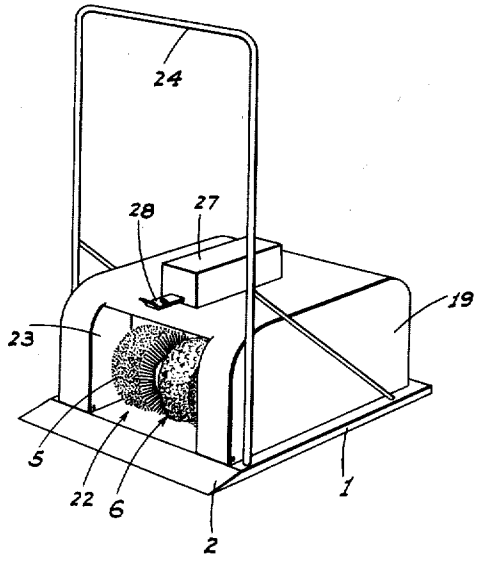
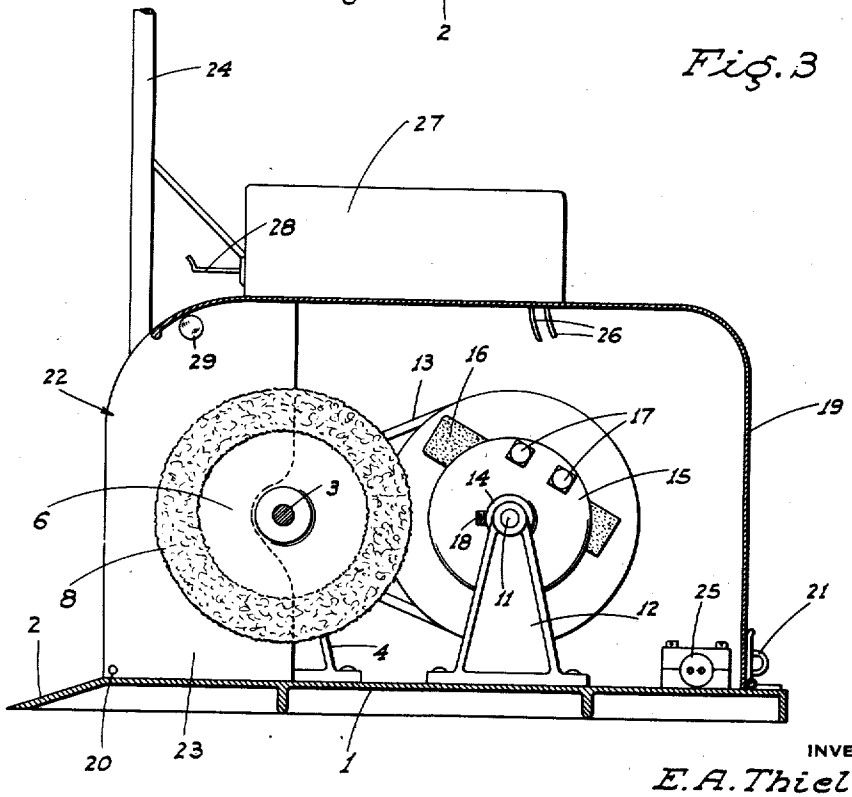


Fig. 3



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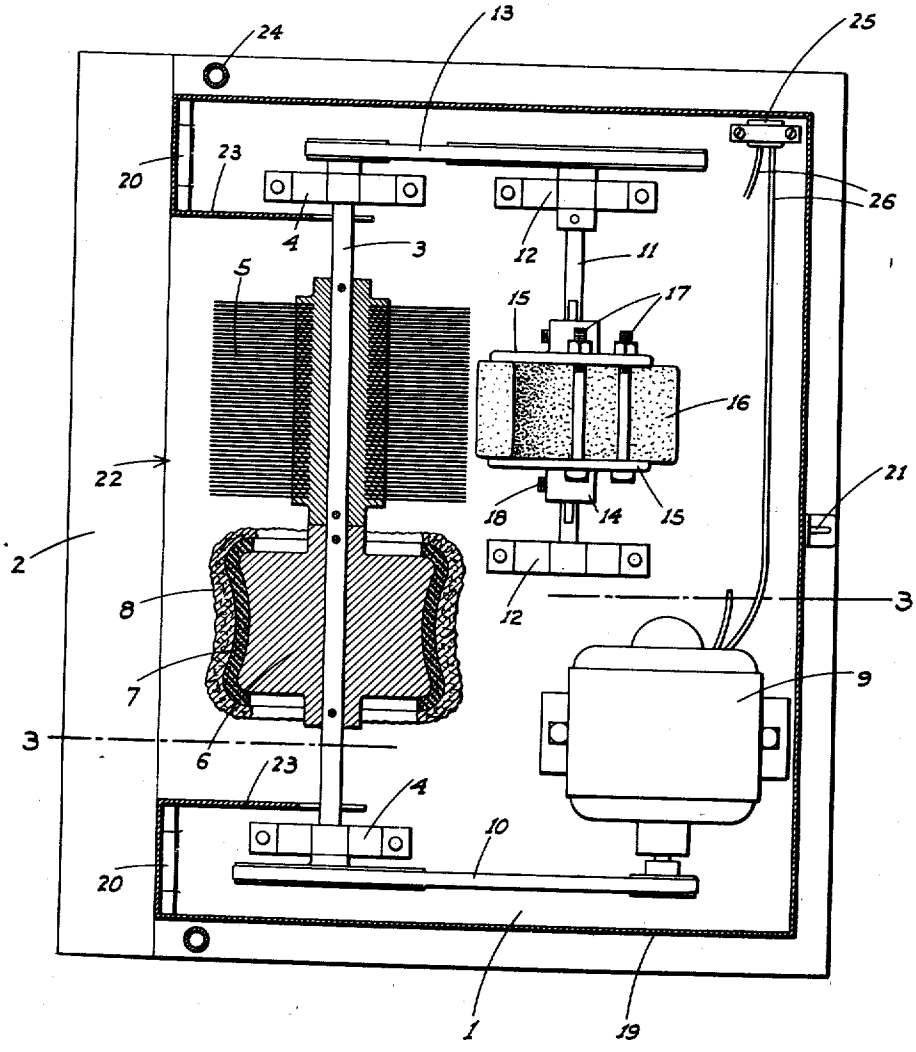
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Fig. 2



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Patented Oct. 7, 1947

2,428,476

UNITED STATES PATENT OFFICE

2,428,476

SHOE SHINING MACHINE

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Application March 19, 1945, Serial No. 583,623

2 Claims. (Cl. 15—31)

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This invention is directed to, and it is an object to provide, a novel shoe shining machine operative to shine shoes on the feet of the wearer; such machine being power driven and coin-controlled for commercial use.

A further object of this invention is to provide a power driven shoe shining machine which includes a driven shaft, and a rotary polish applying brush and a rotary shoe polishing buffer mounted on the shaft in adjacent but spaced relation; the above assembly being disposed within a protective hood having an access opening therein through which a person can project a shoe into contact with the brush or buffer, selectively.

Another object of the invention is to provide a power-driven shoe shining machine which includes a rotary brush for the application of polish to shoes, and unique rotary means cooperating with the brush at the back to supply polish to said brush upon rotation of the latter.

A further object of the invention is to produce a simple and inexpensive device, and yet one which will be exceedingly effective for the purpose for which it is designed.

These objects are accomplished by means of such structure and relative arrangement of parts as will fully appear by a perusal of the following specification and claims.

In the drawings similar characters of reference indicate corresponding parts in the several views:

Figure 1 is a perspective view of the shoe shining machine.

Figure 2 is an enlarged plan view of the machine, mainly in section.

Figure 3 is a cross section on line 3—3 of Fig. 2.

Referring now more particularly to the characters of reference on the drawings, the machine comprises a flat, substantially rectangular base 1 adapted to seat on the floor and including, along its forward edge, a relatively narrow, upwardly inclined ramp 2; this ramp being useful, as will hereinafter appear, to assure proper entry of shoes into the machine for shining.

A horizontal shaft 3 is disposed some distance above the base 1 inwardly of but parallel to its forward edge; said shaft being supported at opposite ends by means of bearing brackets 4 disposed adjacent but short of opposite ends of the base 1.

Between the bearing brackets 4 the shaft 3 is fitted with a rotary brush 5 having relatively long bristles as shown. Adjacent the rotary brush 5 the shaft 3 is fitted with a rotary buffer 6 which

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includes a backing of cushion material 7, such as sponge rubber or the like, disposed beneath a facing of buffing material 8. The rotary buffer 6 is somewhat concave from end to end thereof, to assure conformity with the shoe to be polished.

An electric motor 9 is mounted on the base 1 rearwardly of the rotary buffer 6, and drives the shaft 3 through the medium of an endless belt and pulley unit, indicated at 10.

Rearwardly of the rotary brush 5 the machine includes another shaft 11 parallel to the shaft 3 and in substantially the same horizontal plane; the shaft 11 being relatively short and supported at opposite ends by bearing brackets 12. The shaft 11 is driven from the shaft 3, at the end opposite the drive 10, by an endless belt and pulley unit 13.

Intermediate the ends of shaft 11, and directly to the rear of rotary brush 5, said shaft 11 is provided with a pair of splined hubs 14 slidable on said shaft and each including an enlarged, radially extending circular flange 15. A rectangular but elongated cake 16 of relatively hard wax-type polish is disposed between the flanges 15 generally tangential to the shaft 11, with at least one end of said cake projecting beyond the periphery of said flanges a distance sufficient to recurringly engage the bristles of rotary brush 5 upon rotation of said brush and the cake holding flanges 15. The cake 16 is clamped between the flanges 15 by a pair of cross bolts 17 which extend across the cake on the outside. It will be seen that as the projecting end of the cake wears down by engagement with the rotary brush 5, said cake may be adjusted and advanced upon loosening of the cross bolts 17, together with set screws 18 which normally prevent sliding of the hubs 14 on said shaft 11.

The above described mechanism is enclosed within an upstanding hood 19 hinged, as at 20, at the front and adjacent opposite ends for upward and forward swinging movement to provide access to said mechanism for maintenance or repair; the hood normally being maintained against opening movement by means of a latch 21 at the back. The hood 19 is formed at the front with an access opening 22 of a sufficient height and width to expose the rotary brush 5 and rotary buffer 6 for shoe engagement. At opposite ends of the access opening the hood includes inwardly projecting vertical side plates 23 which extend rearwardly to the shaft 3 adjacent but laterally inwardly of the bearing brackets 4.

A hand rail 24, which includes suitable supporting legs, is fixed in connection with the base

l adjacent the front thereof, said hand rail being provided so that a patron can grasp the same to steady himself while using the machine.

Electric current is supplied to the motor 9 from a terminal box 25 by wires 26, one of said wires leading to and having a coin-controlled time switch interposed therein; said switch being indicated generally at 27, and mounted on top the hood 19. The switch 27 is of conventional type and includes a coin slide 28.

To use the above described machine, a patron places a coin in the slide 28 and pushes the latter inwardly, which results in closing of the switch 27 and operation of the motor 9 for a predetermined length of time.

With the motor 9 driving the shaft 3 the rotary brush 5 and rotary buffer 6 are driven in a direction turning downwardly at the front. The patron first engages a shoe beneath the rotary brush 5, which brush applies polish to the shoe; the ramp 2 facilitating entry of the shoe through the access opening 22. Thereafter the shoe is engaged beneath the rotary buffer 6; the width and concavity of said buffer being such as to effectively polish said shoe.

The switch 27 is adjusted to permit the motor to run, upon the deposit of each coin, a time sufficient for shining a pair of shoes, and thereafter the switch 27 breaks the circuit and the machine ceases to operate.

A fluorescent light 29 is mounted in the hood to illuminate the brush and buffer for night use.

From the foregoing description it will be readily seen that there has been produced such a device as substantially fulfills the objects of the invention as set forth herein.

While this specification sets forth in detail the present and preferred construction of the device, still in practice such deviations from such detail may be resorted to as do not form a departure from the spirit of the invention, as defined by the appended claims.

Having thus described the invention, the following is claimed as new and useful and upon which Letters Patent is desired:

1. A shoe shining machine comprising a support, a horizontal shaft journaled in connection with the support, power means to rotate the shaft, a rotary polish applying brush on the shaft, means to supply polish to said brush, and a rotary buffer on the shaft; said polish supplying means comprising another driven shaft spaced from but parallel to the brush and buffer supporting shaft, a cake polish holder secured on said other shaft in radial alinement with the brush, and a cake of polish projecting from said holder for recurring engagement with the brush upon rotation of said other shaft.

2. A shoe shining machine as in claim 1 in which said holder comprises spaced hubs on said other shaft, enlarged radial flanges on the hubs, the cake of polish being disposed between and projecting beyond the periphery of the flanges for brush engagement, and means to adjustably clamp the cake between said flanges.

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