Apr. 17, 1923. 1,452,386

M. J. MORENO

SHOE POLISHING DEVICE

Filed Jan. 6, 1922

Fig. 1.

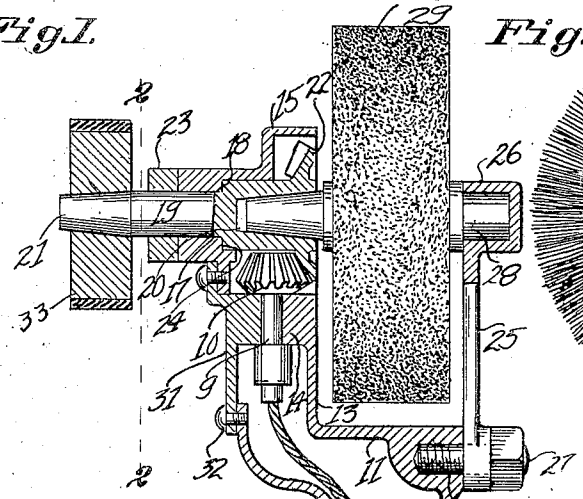


Fig. 2.

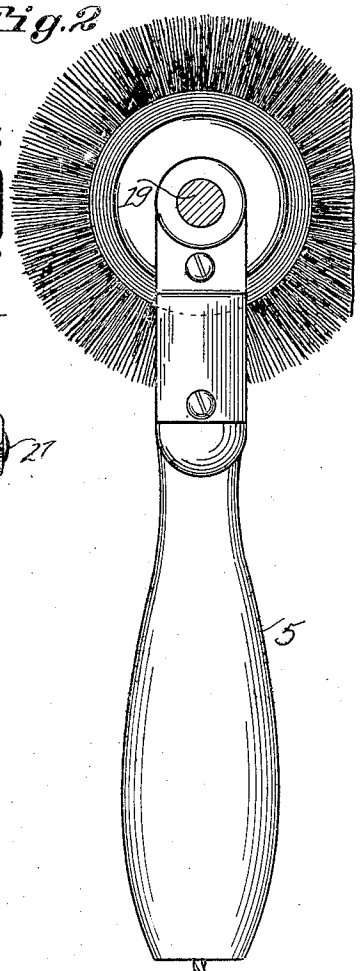
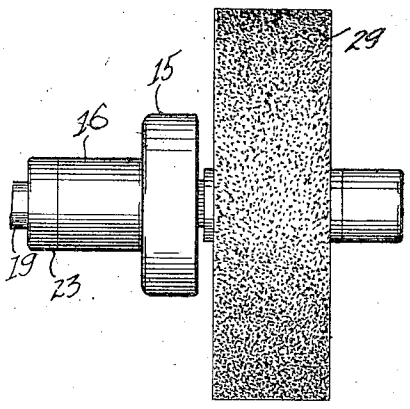
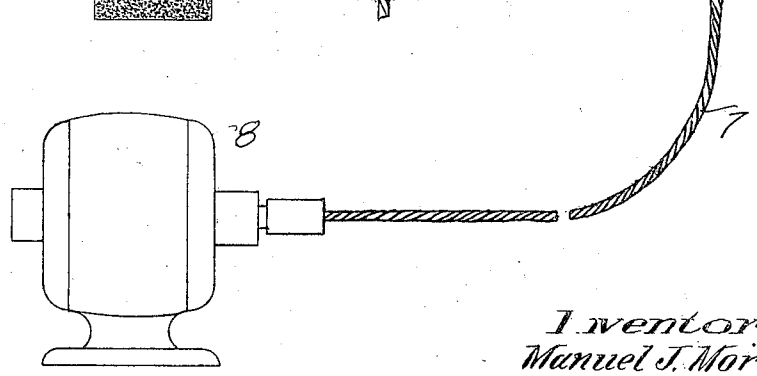


Fig. 3.





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UNITED STATES PATENT OFFICE.

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SHOE-POLISHING DEVICE.

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To all whom it may concern:

Be it known that I, MANUEL J. MORENO, a citizen of the United States, residing at San Francisco, in the county of San Francisco and State of California, have invented new and useful Improvements in Shoe-Polishing Devices, of which the following is a specification.

This invention relates to polishing devices and more particularly to an electrically driven shoe polishing brush.

The principal object of this invention is to provide a comparatively simple and thoroughly efficient device of the character described equipped with means for readily accommodating a plurality of brushes of different diameters and made of different material for accomplishing the rapid polishing of a shoe.

A further object of this invention is to provide means for detachably retaining in position a new polishing brush after the original brush has become worn or useless.

Another object of this invention is to provide a device of the character described which is simple in construction, economical to manufacture and highly serviceable and which will accomplish the polishing of a shoe in a minimum amount of time.

Other objects and advantages will be apparent during the course of the following description.

In the accompanying drawings forming a part of this specification, and in which like numerals are employed to designate like parts throught the same,

Fig. 1 is a vertical section through the device,

Fig. 2 is a vertical section through the cone shaft on the line 2—2 of Fig. 2, and

Fig. 3 is a plan view of the device constructed in accordance with my invention.

In the accompanying drawings wherein for the purpose of illustration is shown a preferred embodiment of my invention, the numeral 5 designates a tubular handle, which is apertured adjacent its lower end as indicated by the numeral 6 so as to permit a flexible cable 7 to pass therethrough. This cable 7 is connected at one extremity to a conventional motor 8 and at its opposite end to a shaft 9 on which is mounted a bevel gear 10. The tubular handle 5 has integrally formed therewith a body 11 which is threadedly bored as at 12 and continues into an arm 13 which terminates in a sectional bearing 14.

The numeral 15 designates a cylindrical housing provided with an extension 16 centrally bored at 17 and equipped with an annular flange 18. The housing is integrally formed with the arm 13 and accordingly supported thereby. Horizontally disposed within the housing and bore of the extension, is a drive shaft 19 provided with a tapering socket 20. The shaft 19 terminates in a cone shaped extremity 21 and at its opposite end terminates in a master gear 22 adapted to mesh with the bevel gear 10. In order that there may be a compact retention of the drive shaft 19 within the housing and the extension, I have disposed a collar 23 on the drive shaft, which prevents the lateral displacement of the shaft in one direction during its rotating action, while shoulders 24 of the drive shaft contact with the flange 18 of the extension to prevent the lateral displacement of the shaft in the opposite direction.

To the body 11 I have detachably secured an arm 25 provided with a tubular enlarged head 26, the arm being detachably secured in the body by a bolt 27, which is threadedly received in the bore 12. In the socket 20 of the main drive shaft 19 and in the tubular head 26 I have positioned the extremities of a short shaft 28, the shaft having centrally disposed thereon a polishing element preferably a brush 29. It is to be noted that frictional contact is made between one extremity of the short shaft and the main driving shaft 19, for simultaneously rotating the short shaft as the drive shaft 19 is driven. Thus there is imparted a rotary movement to the brush 30 fixed to the short shaft 28.

The numeral 31 designates a cap which is detachably secured to the extension 16 and to the handle 5, by fastening elements 32 preferably, headed screws. From a consideration of Figure 1 of the drawing, it will be evident that the cap serves as a sectional bearing adapted to cooperate with the bearing 14 of the arm 13 for supporting the shaft 19 as it rotates therebetween.

From this construction it will be obvious that when the motor is started the flexible shaft 7 will rotate the shaft 9 and cause the bevel gear mounted thereon to actuate the

master gear 22 of the main drive shaft 19. The shaft 28 being frictionally in contact with the main drive shaft will cause its polishing element to rotate and thus serve to polish a shoe with which the said brush comes in contact. When it is desired to drive an auxiliary brush 33 it is only necessary to insert the said brush on the cone shaped end of the drive shaft and thus the desired auxiliary polishing action can be accomplished, or on the other hand can be used for spreading or daubing the polishing material on the shoe.

Great annoyance has been experienced by persons employed in polishing shoes because of the necessity of the polishing material being placed on the fingers of the polisher and then being transferred to the shoes. With the use of this device the polish can be readily placed on the shoe by the auxiliary brush 33 which by its rotation, will cause the polish to be equally distributed on the shoe as the brush passes thereon. An application of the main brush 16 will cause the shoes to be polished in a minimum amount of time.

While I have illustrated a device particularly applicable for polishing shoes, nevertheless, it is to be understood that the device has very many other uses, such as a device for cleaning clothes, wood work and the like. When the device is to be used in the building trade as a scraper, suitable rotatable scraping implements can be substituted for the brushes illustrated in the drawing.

It is to be understood that the form of my invention herewith shown and described it to be taken as a preferred example of the same, and that various changes in the shape, size and arrangement of parts may be resorted to without departing from the spirit of the invention or the scope of the subjoined claims.

Having thus described my invention, I claim:—

1. A device of the character described comprising a tubular handle having an aperture therein, a housing connected to said handle, a main drive shaft disposed in said housing, an auxiliary shaft frictionally engaging said main drive shaft and adapted to be actuated thereby, polishing implements mounted on the respective shafts, mechanism in said handle and housing adapted to actuate said drive shaft for rotating said implements, and means extending into said handle and connected to said mechanism, substantially as and for the purpose described.

2. A device of the character described including a tubular handle having an aperture therein, a main body portion connected to said handle, a tubular housing integrally formed with said body, a vertical shaft in said body portion, a bevel gear mounted on said shaft, a main drive shaft disposed at right angles to the said vertical shaft and terminating at one extremity in a cone shaft, a master gear mounted on the opposite extremity of said main shaft and adapted to mesh with the gear of said vertical shaft, an auxiliary shaft frictionally engaging said main shaft at one extremity thereof, an arm detachably secured to the said body portion at one end thereof and terminating in an enlarged head adapted to receive the other extremity of said auxiliary shaft, polishing brushes of varying diameters positioned on the main drive shaft and auxiliary shaft, and means connected to said vertical shaft for transmitting power through the handle for rotating said brushes, substantially as and for the purpose described.

In testimony whereof I affix my signature.

MANUEL J. MORENO.