Nov. 17, 1925. 1,562,377

M. A. SPIELMAN

SHOE POLISHER

Filed Nov. 10, 1924 2 Sheets-Sheet 1

Fig. 1.

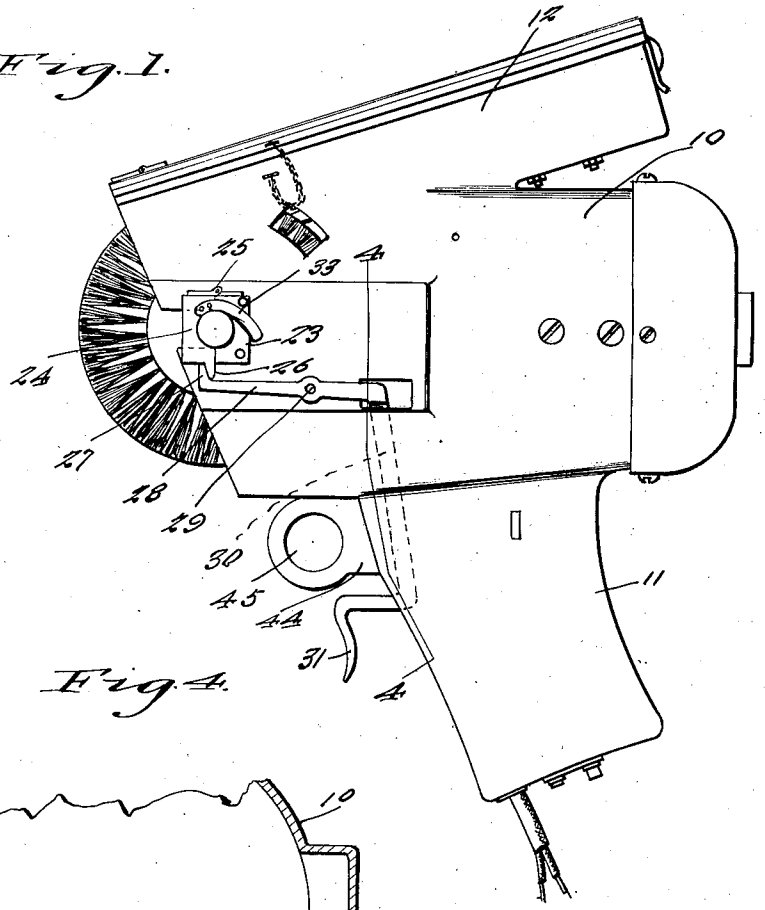


Fig. 4.

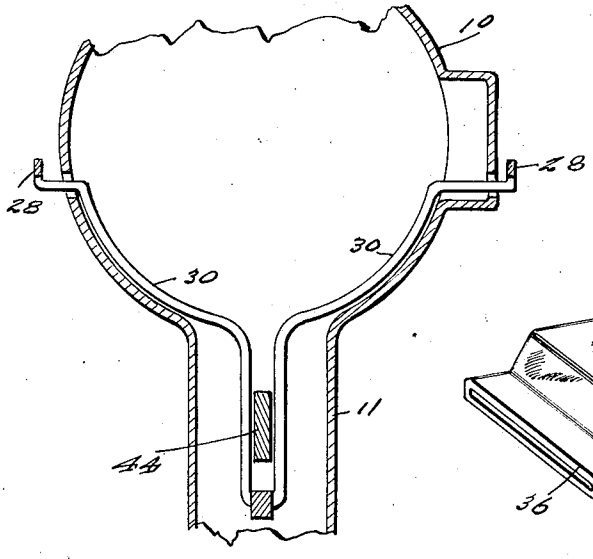
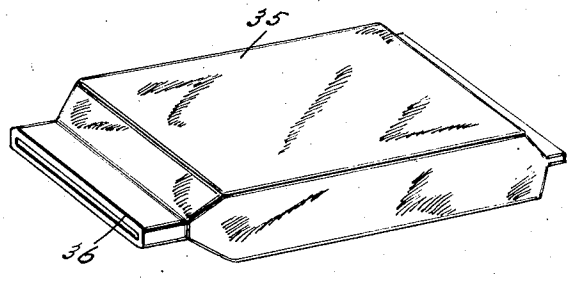


Fig. 7.



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WITNESS:

M. A. Spielman INVENTOR

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Fig. 2.

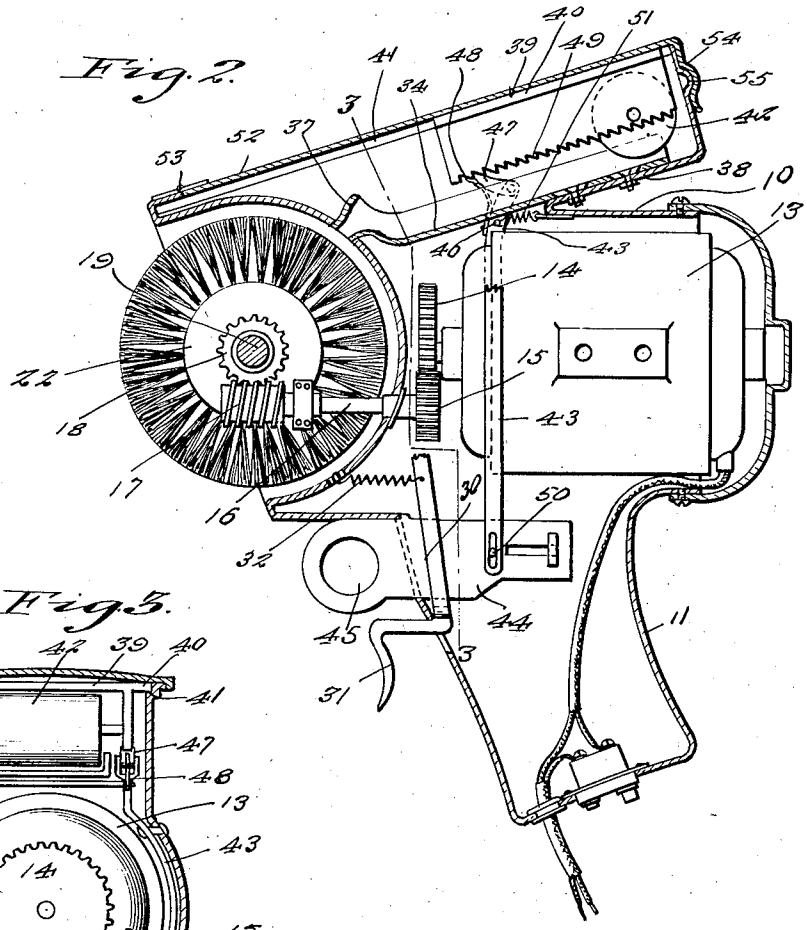


Fig. 3.

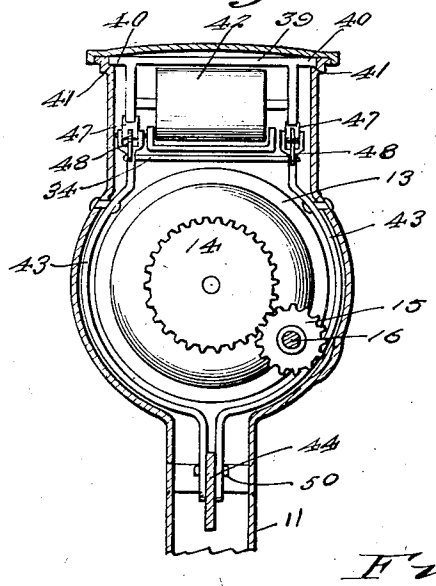


Fig. 6.

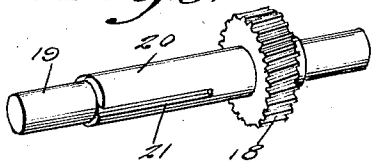
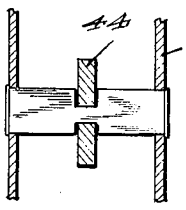


Fig. 5.



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UNITED STATES PATENT OFFICE.

MARVIN A. SPIELMAN, OF LARIMORE, NORTH DAKOTA.

SHOE POLISHER.

Application filed November 10, 1924. Serial No. 749,013.

To all whom it may concern:

Be it known that I, MARVIN A. SPIELMAN, a citizen of the United States, residing at Larimore, in the county of Grand Forks and State of North Dakota, have invented new and useful Improvements in Shoe Polishers, of which the following is a specification.

This invention contemplates the provision of a shoe polishing device, by means of which shoes can be polished with a saving of time, labor and material, the invention embodying amongst other features, a motor operated brush, together with means for feeding shoe polish to the shoe in any desired proportion.

Another object of the invention resides in the provision of a device of the above mentioned character, wherein the paste tube can be quickly and conveniently separated from the device when it is desired to change the color of the paste, the construction also permitting the brush to be readily changed as the occasion may require.

The nature and advantages of the invention will be better understood when the following detail description is read in connection with the accompanying drawings, the invention residing in the construction, combination and arrangement of parts as claimed.

In the drawings forming part of this application, like numerals of reference indicate similar parts in the several views, and wherein:

Figure 1 is a side elevation of the device forming the subject matter of the present invention.

Figure 2 is a vertical sectional view therethrough.

Figure 3 is an end elevation partly in section and showing the brush removed.

Figure 4 is a sectional view taken on line 4—4 of Figure 1.

Figure 5 is a detail sectional view.

Figure 6 is a detail view of the brush shaft.

Figure 7 is a view of a shoe polish container used in conjunction with the device.

The device forming the subject matter of the present invention comprises a casing 10, which may be of any suitable size and configuration, perferably of cylindrical contour in cross section. Depending from the casing 10 is a handle 11, while arranged at the opposite side of the casing 10 is a compartment 12 for a purpose to be hereinafter described. Arranged within the casing 10 is a small electric motor indicated generally at 13, and carried by the shaft of this motor is a gear 14 which meshes with a smaller gear 15 fixed to one end of a shaft 16, which shaft is manifestly driven by the motor. Associated with the other end of this shaft 16 is a worm gear 17 which meshes with a gear 18 supported by the brush shaft 19. This shaft is clearly shown in Figure 6, wherein it will be noted that the gear 18 instead of being directly connected with the shaft 19, is carried by a sleeve 20 which is keyed as at 21 to the shaft. By reason of this arrangement of parts, it is obvious that when it is necessary to make use of a new brush, the said new brush can be associated with the shaft 19 and the sleeve 20, thus dispensing with the necessity of buying these parts. The brush is indicated at 22 and may be of any suitable size and character. The shaft 19 is journaled in bearings, one of which is clearly shown in Figure 1, wherein 23 represents the stationary part of said bearing, while 24 indicates the movable part, which is hingedly connected with the stationary part as at 25. The movable part 24 is formed with a nose-like extension 26 which is adapted to be engaged by the offset extremity 27 of a lever 28 to hold the movable part 24 of the bearing in the position shown in Figure 1. This lever 28 is fulcrumed at a point between its ends as at 29, and is connected with a lever 30 terminating to provide a finger engaging portion as at 31. A spring 32 is terminally connected with the casing 10 and also with the lever 30 to hold the parts normally in the position shown in Figures 1 and 2. However, when it is desired to change the brush, it is only necessary to actuate the lever 30 by pressing upon the finger engaging portion 31 in order to throw the lever 28 to an inoperative position. The movable part 24 of the bearing oscillates so that it is allowed to open as the shaft of the brush is lowered out of the bearing. Carried by the movable part of this bearing is a curved arm 33 which overlies the shaft in the manner shown in Figure 1, and when the shaft is removed from the bearing thereby swinging the movable part 24 of the bearing to an open position, the arm 33 is moved to a position to traverse the shaft opening, so that when a new brush is placed within

the bearing, the arm lying in the path of movement of the shaft of said brush is engaged thereby for the purpose of lowering the movable part 24 of the bearing to its normal position. By reason of this construction the brushes can be changed in a quick order. This is desirable because of the fact that one brush may be used for the application of the paste to the shoe, and another brush used for polishing the shoe, while in other cases a hard or soft brush may be necessary for the work to be performed.

The compartment 12 above referred to is preferably of rectangular contour in cross section as clearly shown in Figure 3, and arranged in this compartment is a paste tube holder 34. This holder is designed to accommodate a tube 35 preferably of the construction illustrated in Figure 7, wherein it will be noted that the tube is formed with an elongated mouth 36, so that the paste forced from the tube in the manner to be hereinafter described, will be applied to the brush approximately across the entire length therof. It will also be noted upon inspection of Figure 2 that the holder 34 is formed with an offset end portion 37 designed to receive the mouth 36 of said tube, thus holding the mouth of the tube in juxtaposition to the brush. The holder 34 is also adjustable longitudinally in the compartment 12 to compensate for any wear on the brush, suitable fastening elements 38 being utilized to maintain the holder fixed with relation to the compartment in any given position.

Arranged for longitudinal movement within the compartment 12 is a carriage 39, the latter being of inverted U-shaped formation in cross section as clearly shown in Figure 3, and the top of this carriage projecting laterally beyond the sides thereof as at 40, in order to repose upon shoulders 41 forming part of the side walls of the compartment 12. The holder in its entirety slides along these shoulders, and journaled between the side walls of the carriage is a roller 42 which is utilized to compress the tube 35 and thus force the paste therefrom onto the brush 22. While any suitable means may be employed for feeding the carriage in the direction of the brush 22, I preferably make use of a pair of oppositely curved arms 43 which are shaped to conform to the configuration of the casing 10 in which they are arranged, these arms having corresponding lower extremities closely associated and connected to the opposite sides of a sliding trigger 44, which operates within the handle 11, and which trigger is formed with a finger receiving opening 45. The arms 43 are pivoted at points adjacent their upper ends as at 46 and carried by these ends are pivoted pawls 47, each of which is provided with a spring 48 to hold the pawl in engagement with the teeth 49 formed on the adjacent longitudinal edge of the carriage. As above stated, the arms 43 are associated with the trigger 44 by slot and pin connections 50, and manifestly when the trigger is moved inwardly, the arms 43 are rocked upon their pivot, thereby moving the carriage 39 in a direction of the brush. When moved in this direction, the roller 42 mounted on said carriage passes over the flexible tube 35, thus forcing a quantity of paste from the tube onto the brush 22. When the trigger 44 is released, a spring 51 functions to return the movable parts to their normal positions. The compartment 12 is provided with a hinged cover 52, the hinge for said cover being indicated at 53. The cover is maintained in a closed position by means of a resilient latch element 54 which is formed with a depression adapted to snap over a bulged portion 55 formed on the adjacent end of the compartment as clearly shown in Figure 2. When it is desired to use a different character or color of paste, it is only necessary to swing the cover 52 to an open position, after which the carriage 39 can be easily lifted out of the compartment, and then the flexible tube 35 taken from the holder 34 and replaced by the tube desired to be used.

The invention provides a device by means of which shoes can be polished in quick order, with an economical use of shoe polish. The operator has perfect control of the feeding mechanism, including the carriage 39 with its holder 42. The device can be conveniently handled with either hand, by holding the device by the handle 11, and if desired the other hand may be arranged upon the compartment 12 to assist in guiding the device.

While it is believed that from the foregoing description the nature and advantages of the invention will be readily understood, I desire to have it known that I do not limit myself to what is herein shown and described, and that such changes may be resorted to when desired as fall within the scope of what is claimed.

What is claimed is:—

1. A device of the character described comprising a casing, a motor arranged therein, a brush detachably mounted on the casing and adapted to be driven from said motor, a handle projecting from said casing, a compartment supported on said casing, a paste tube holder arranged in said compartment, a manually controlled means for feeding the paste from the tube onto said brush, and said means including a carriage arranged to move longitudinally within said compartment, and a roller journaled on said carriage and adapted to compress said tube when moved over the latter.

2. A device of the character described

comprising a casing, a motor arranged therein, a brush removably mounted on the casing and adapted to be rotated from said motor, a handle projecting from the casing, a compartment supported upon the casing, a paste tube holder arranged within the compartment and capable of longitudinal adjustment therein, a carriage arranged to move within said compartment, a roller journaled on said carriage and adapted to be moved across said tube, to compress the latter and thus feed the paste onto the brush, arms pivoted on said casing, teeth formed along the lower edge of said carriage, pivoted pawls carried by said arms and arranged to engage said teeth for feeding the carriage in one direction within said compartment, a finger engaging element mounted on said handle and connected with said arms for actuating the latter, and resilient means for returning the arms to their normal position after each operation.

3. A device of the character described comprising a casing, a motor arranged therein, a rotary brush detachably mounted upon the casing and adapted to be driven from said motor, a handle projecting from the casing, a compartment mounted upon the casing, and including a movable cover, a paste tube holder arranged within the compartment, means for feeding the paste from the tube onto said brush, said means including a carriage mounted for longitudinal movement within the compartment, a roller journaled on said carriage and adapted to be moved across the tube to compress the latter, and a finger engaging element mounted on the handle and connected with said carriage to effect an adjustment of the latter, said carriage being removable from said compartment to allow the paste tube to be separated therefrom, and means for adjusting the tube holder longitudinally of said compartment to compensate for wear of said brush.

In testimony whereof I affix my signature.

MARVIN A. SPIELMAN.