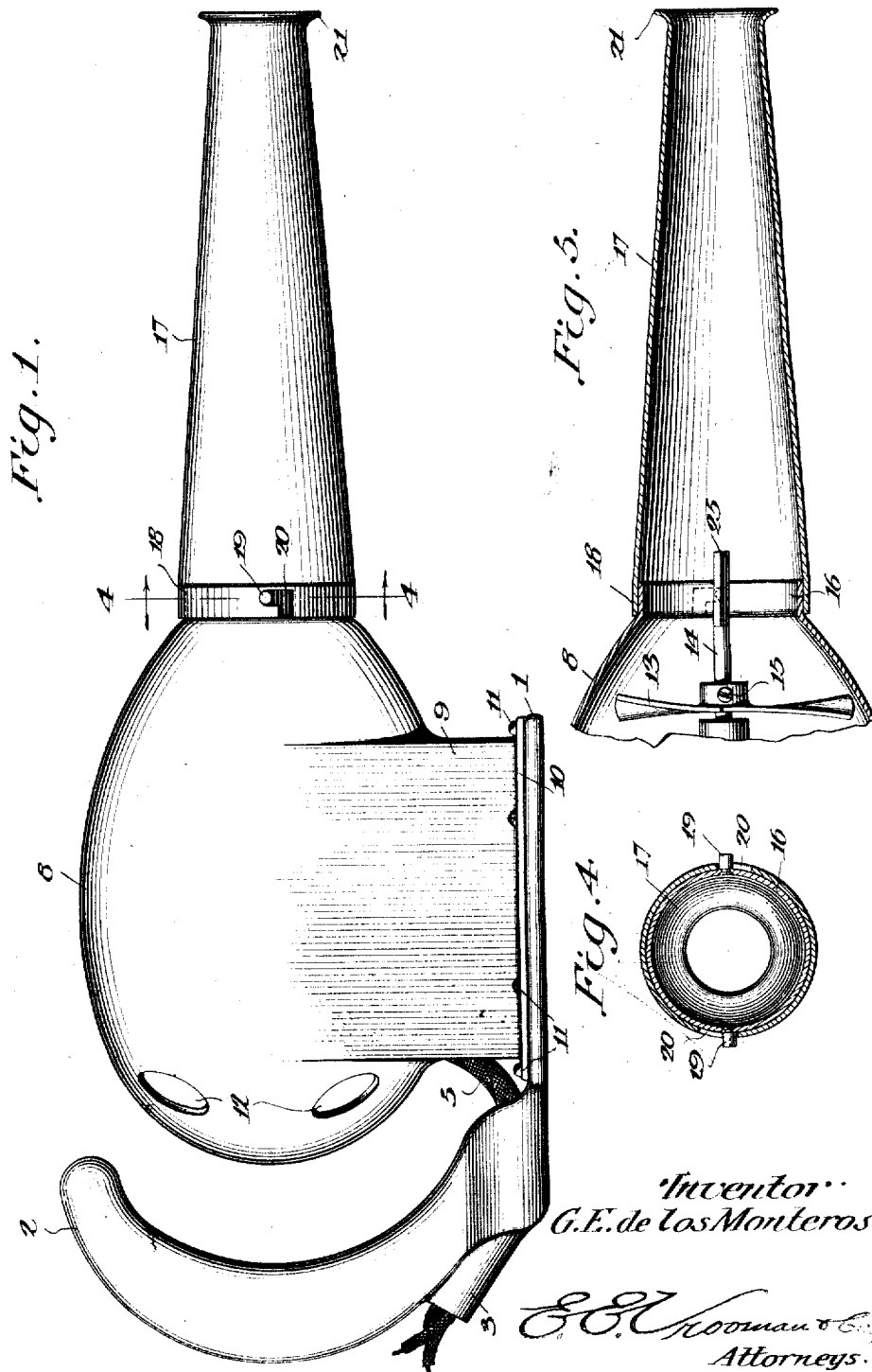


G. E. DE LOS MONTEROS.
BLAST DEVICE FOR SHOE POLISHING MACHINES.
APPLICATION FILED JUNE 10, 1916.

1,239,673.

Patented Sept. 11, 1917.
3 SHEETS—SHEET 1.



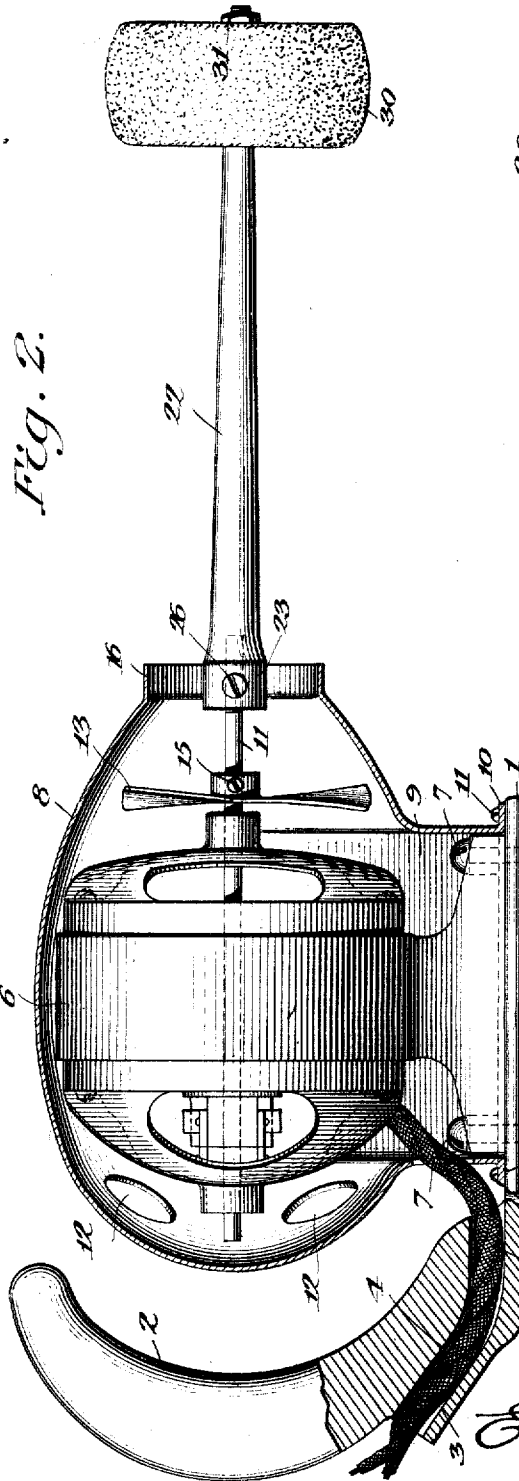
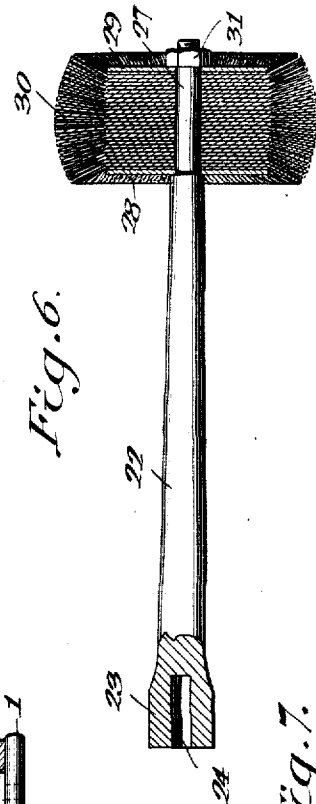
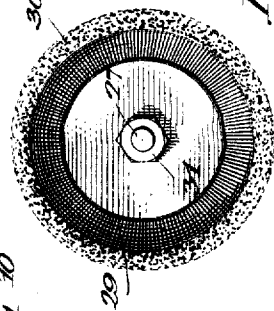
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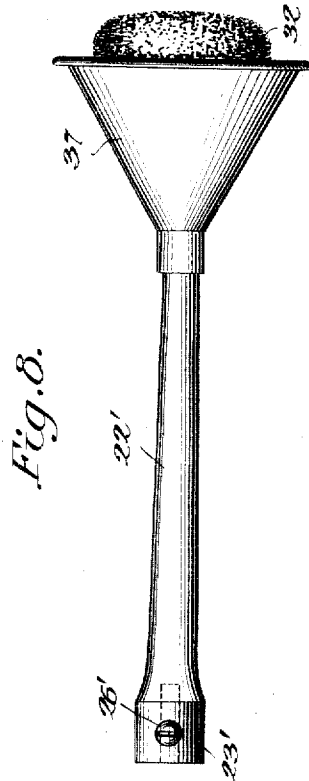
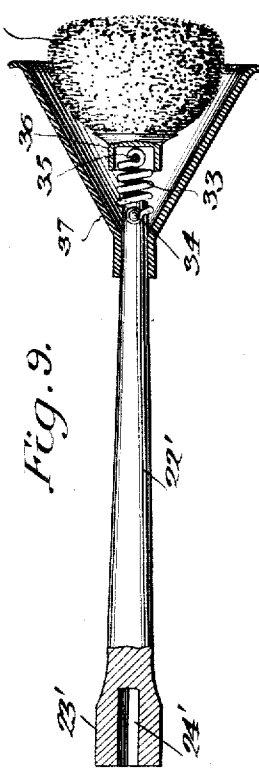
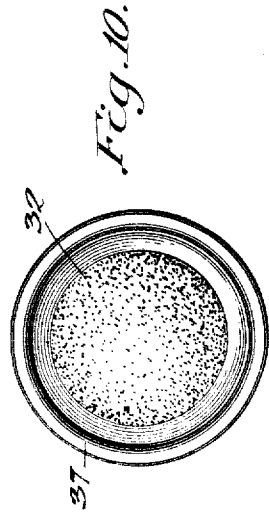
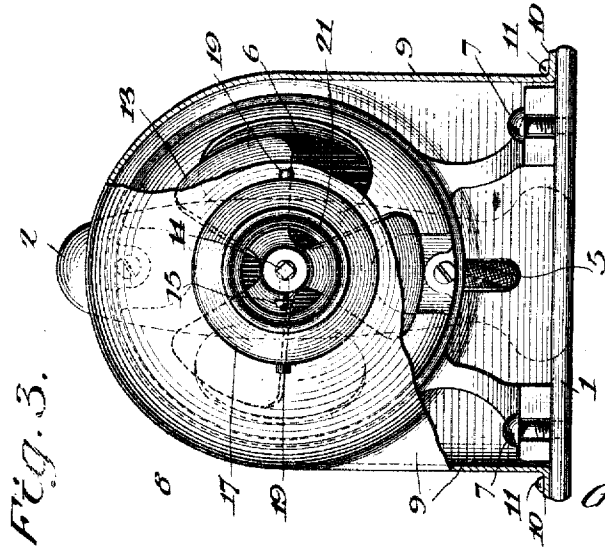
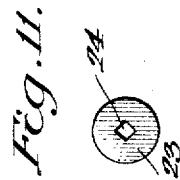
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UNITED STATES PATENT OFFICE.

GUSTAVO ESPINOSA DE LOS MONTEROS, OF EL PASO, TEXAS.

BLAST DEVICE FOR SHOE-POLISHING MACHINES.

1,239,673.

Specification of Letters Patent.

Patented Sept. 11, 1917.

Application filed June 10, 1916. Serial No. 102,899.

To all whom it may concern:

Be it known that I, GUSTAVO ESPINOSA DE LOS MONTEROS, a citizen of Mexico, residing at El Paso, in the county of El Paso and State of Texas, have invented certain new and useful Improvements in Blast Devices for Shoe-Polishing Machines, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to a blast device for a shoe polishing machine and has for its principal object the production of a device which is so constructed as to apply polish to a shoe and then to dry the same and afterward polish the shoe, thus dispensing with the necessity of the employment of the ordinary brushes and other paraphernalia now in use for the purpose.

Another object of this invention is the production of a blast device for a shoe polishing machine wherein the base has a handle formed thereon so as to permit the same to be easily lifted, while the motor housing carried upon this base permits the entire device to be easily lifted and moved to a position desired so as to facilitate the polishing of shoes.

Another object of this invention is the production of a blast device for a shoe polishing machine wherein the funnel is demountably carried upon the motor housing so as to direct the air currents from the motor housing to the shoe upon which the polish is being applied, this funnel being adapted to be removed when so desired for applying a brush to the motor shaft, whereby the brush may either apply the polish to a shoe or burnish the shoe afterward as desired.

With these and other objects in view this invention consists of certain novel combinations, constructions, and arrangements of parts as will be hereinafter fully described and claimed.

In the accompanying drawings:

Figure 1 is a side elevation of the blast device for a shoe polishing machine.

Fig. 2 is a central longitudinal section through the blast device for a shoe polishing machine, showing the funnel removed and a brush applied thereto.

Fig. 3 is a front elevation of the blast device for a shoe polishing machine, portions of the motor housing being broken away.

Fig. 4 is a section taken on the line 4—4 of Fig. 1, looking in the direction of the arrows.

Fig. 5 is a longitudinal section through the forward portions of the motor housing and through the funnel, illustrating the manner in which the funnel is mounted thereon.

Fig. 6 is a side elevation partly in section of a brush used for applying polish to the shoe.

Fig. 7 is a front elevation of the brush as disclosed in Fig. 6.

Fig. 8 is a side elevation of another form of a brush which is used in rubbing or brushing the shoe after the polish has dried thereon.

Fig. 9 is a sectional view of the brush as disclosed in Fig. 8, portions of the same being shown in elevation.

Fig. 10 is a front elevation of the brush as shown in Fig. 8.

Fig. 11 is an elevation of the inner end of the shaft used in connection with these brushes, showing the socket formed therein.

Referring to the accompanying drawings by numerals it will be seen that 1 designates a base plate which has the handle 2 formed upon its rear end and extending for a considerable distance thereabove. This handle 2 has a sleeve 3 formed upon one side thereof and through the handle 2 and sleeve 3 there extends a bore 4 for the reception of the conductor wires 5 which extend there-through. The motor 6 is mounted upon the base 1, as shown in Figs. 2 and 3, and is held in a fixed set position by means of the screws 7 which pass through the base of the motor 6 into engagement with the base plate 1. The wires 5 are connected to the motor 6 so that a suitable supply of electricity may be supplied to the motor for running the same. It is, of course, obvious that a suitable form of a motor may be employed either of a direct or alternating type and also of any desired size.

The motor housing 8 is substantially circular in cross-section at its central portion, although it tapers toward its end, and is mounted upon the base plate 1. The straight side walls 9 extend from the central portions of the housing 8, depending for a considerable distance therebelow and having the horizontally extending base flanges 10 formed thereon, which flanges rest upon the base plate 1. The retaining screws 11

pass through the base flanges 10 into engagement with the base plate 1 and thus fixedly secure the motor housing 8 in a set position upon the base plate 1. It should be noted that the motor housing and the walls 9 thereof are formed of any suitable material, preferably metal, although they may be of any suitable substance so as to minimize their weight when applied to the base plate 1. Since the motor housing 8 is circular at its central portion sufficient space is provided for the accommodation of the motor 6, as shown in Fig. 2. The rear end of the motor housing 8 is provided with a number of intake openings 12 so that when the motor is running air may be sucked into the interior of the motor housing 8 by means of the fan 13 mounted upon the motor shaft 14. This fan 13 may be retained in a set position by means of the set screw 15 as shown in Figs. 2 and 5. As the ends of the motor housing converge the air being drawn in one end will be condensed by the opposite reduced end and discharged with considerable force therefrom. This last-mentioned end of the motor housing 8 is provided with an annular collar 16 to receive the funnel. The funnel 17 has a collar 18 which is adapted to demountably fit upon the collar 16 of the motor housing 8. The collar 16 of the motor housing 8 is provided with pins 19 which are adapted to fit within the bayonet slots 20 of the collar 18 of the funnel 17. Thus, it will be seen that the funnel may be applied to the collar of the motor housing 8 so as to permit the pins 19 to be directed into the slots 20 after which action the funnel may be turned to one side, thus permitting the pins to rest within the inner portions of the slots 20 and thus hold the funnel from being accidentally displaced when in use. This funnel 17 tapers toward its outer end, as shown clearly in Fig. 5, although the outer end is flared, as shown at 21 comprising a blunt bearing surface, provided the end of the funnel comes into engagement with the shoe which is being polished.

The brush used for applying the polish to the shoe comprises a shaft 22 having an enlarged inner end 23 in which there is formed a socket 24. This socket 24 is squared in cross-section, as shown in Fig. 11, so as to fit upon the square end 25 of the motor shaft 14. The set screw 26 is carried by the enlarged inner end 23 of the brush shaft 22 so that after the square end 25 of the motor shaft 14 has been inserted in the square socket 24, the set screw may be turned so as to bind upon the motor shaft 14 and thus hold the brush shaft 22 in a fixed engagement therewith, whereby as the motor shaft rotates the rotary motion will be imparted to the brush shaft 22. This brush shaft 22 is provided with a reduced

outer end 27 upon which are positioned the washers 28 and 29. The fabric sheets 30 which constitute the brush are positioned upon the reduced end 27 of the brush shaft 22, being interposed between the washers 28 and 29. The retaining nut 31 is threaded upon the outer end of the reduced end 27, thereby holding the washers 28 and 29 and the fabric sheets 30 in fixed engagement with the outer reduced end 27 of the brush shaft 22. Thus, it will be seen that polish may be applied to a shoe by means of the fabric brush 30 for after the polish has been applied to the brush and the same is being rotated by the motor the brush may be positioned upon the shoe and the polish will be evenly and thoroughly distributed upon the surface of the shoe. As soon as the polish has been applied to the shoe the brush shaft 22 may be detached from the motor shaft 14, after which action the funnel may be placed upon the collar 16, as shown in Fig. 5. The motor may then be again started so that the air being discharged from the funnel may quickly dry the polish and thus dispense with the necessity of using the customary articles now employed for accomplishing this function.

After the polish has become dry the shoe may be easily burnished by means of the soft brush 32. The brush shaft 22' is provided with an enlarged inner end 23' in which there is formed a square socket 24' so as to receive the square end of the motor shaft 14. The set screw 26' will detachably retain the brush shaft 22' in engagement therewith. Upon the forward end of the brush shaft 22 there is carried a coil spring 33 by means of the rivet 34 which secures the coil spring to the forward end of the brush shaft 22'. The opposite end of the coil spring 33 is secured by means of the pin 35 carried by the cup 36 upon which the soft brush 32 is mounted. The yieldable rubber bell 37 is mounted upon the forward end of the brush shaft 22' so as to overhang the spring as well as the brush 32. Thus, it will be seen that if this brush is used for applying polish to a shoe the yieldable bell 37 will prevent the polish from being thrown either upon the operator or the patron. Furthermore, it will be seen that since the brush 32 is yieldably mounted since the spring 33 supports the same in burnishing a shoe it will yield slightly as the shoe is being rubbed and thus prevent the shoe from being rubbed too vigorously, which action would remove the polish which has been priorly applied thereto.

From the foregoing description it will be seen that a very efficient shoe polishing machine has been provided, which is so constructed as to very quickly polish a pair of shoes, owing to the fact that the polishing means now commonly employed for accom-

polishing this purpose are dispensed with and owing to the rapidity with which the brushes and drying air may be applied to the shoe the function may be rapidly accomplished. Furthermore, it will be seen that because of the detachability of the funnel and the brushes these various elements may be readily attached and demounted as desired, while the portability of the machine will permit the same to be moved to various angles for efficiently polishing all portions of the shoe. Furthermore, it will be noted that the construction of the device is such as to efficiently support the motor as well as the housing, while the construction of the fan housing having tapering ends will constitute a director for the air which is being blown upon the shoe for drying the same. Thus, it will be seen a shoe polishing machine has been provided which will efficiently accomplish all purposes as set forth, and which is comparatively simple in operation, cheap in construction, and formed of a minimum number of parts for the purposes specified.

What is claimed is:—

1. In a blast device for a shoe polishing machine of the class described, the combination of a base plate, a motor fixed upon said base plate, means for supplying said motor with an electric current, a motor housing positioned upon said base plate, said motor housing being enlarged at its central portions so as to provide sufficient space for the accommodation of said motor, said motor housing converging at its ends, one of said converging ends being provided with a plurality of enlarged openings, a fan carried by said motor, whereby as the motor rotates air will be drawn through said openings into said motor housing, the remaining converging end of said motor housing being adapted to condense the air currents created by said fan, and a funnel demountably secured upon said motor housing, whereby said funnel will conduct air currents from the motor housing to points desired.

2. In a blast device for a shoe polishing machine of the class described, the combination of a base plate, a motor fixed upon said base plate, means for supplying said motor with an electric current, a motor housing

positioned upon said base plate, said motor housing being enlarged at its central portions so as to provide sufficient space for the accommodation of said motor, said motor house converging at its ends, one of said converging ends being provided with a plurality of enlarged openings, a fan carried by said motor, whereby as the motor rotates air will be drawn through said openings into said motor housing, the remaining converging end of said motor housing being adapted to condense the air currents created by said fan, said motor housing provided with a collar upon said last-mentioned converging end, a funnel having a collar formed upon one end thereof, said last-mentioned collar being adapted to fit upon said first-mentioned collar, and means for holding said collars in releasable engagement with each other, said funnel being adapted to conduct air currents from said motor housing to points desired.

3. In a blast device for a shoe polishing machine of the class described, the combination of a flat base, said base being adapted to rest evenly upon a support, a handle extending upwardly from the top of said base, a motor fixedly mounted upon said base, said motor having a fan, a housing positioned upon said base, said housing being enlarged at its central portions so as to provide sufficient space for the accommodation of said motor, said housing having converging ends, said enlarged central portions of said housing having straight side walls depending therefrom, outwardly-extending flanges formed upon said walls, said flanges fitting upon said base plate, means passing through said flanges for holding said housing upon said base, means for supplying said motor with an electric current, one of said converging ends having openings whereby air will be drawn therethrough into said housing, the remaining converging end being adapted to condense the air currents, said housing having a collar upon said last-mentioned converging end, and a funnel demountably carried by said collar.

In testimony whereof I hereunto affix my signature.

GUSTAVO ESPINOSA DE LOS MONTEROS.