Sept. 6, 1927. 1,641,494

E. C. JOSEPH

WASHING AND POLISHING DEVICE

Filed Aug. 17, 1925 2 Sheets-Sheet 1

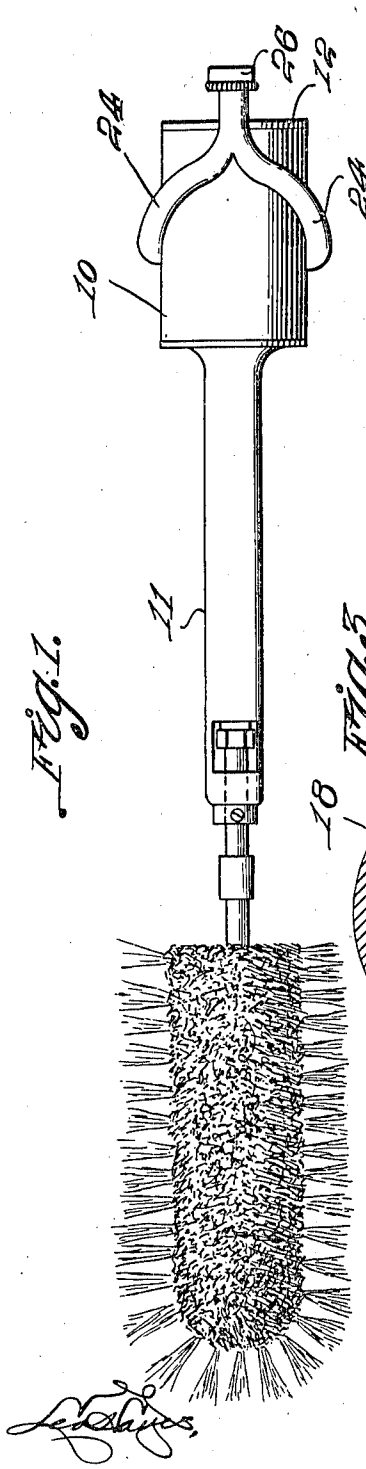


Fig. 1.

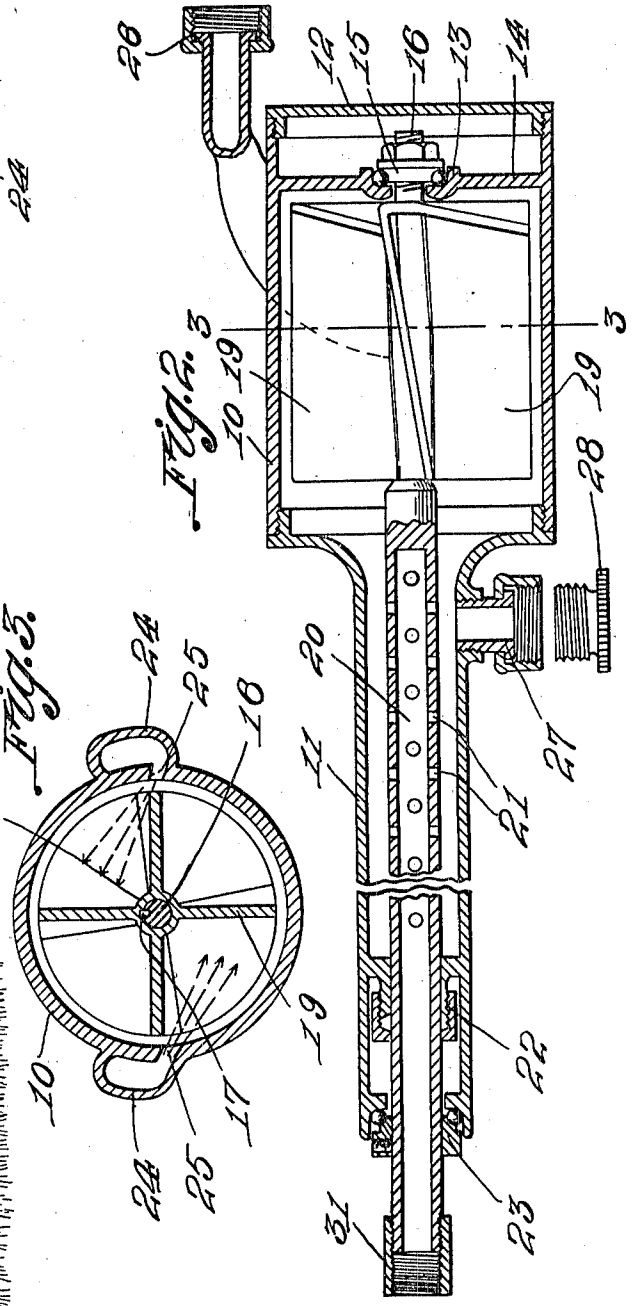


Fig. 2.

Fig. 3.

Witness:

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Fig. 4.

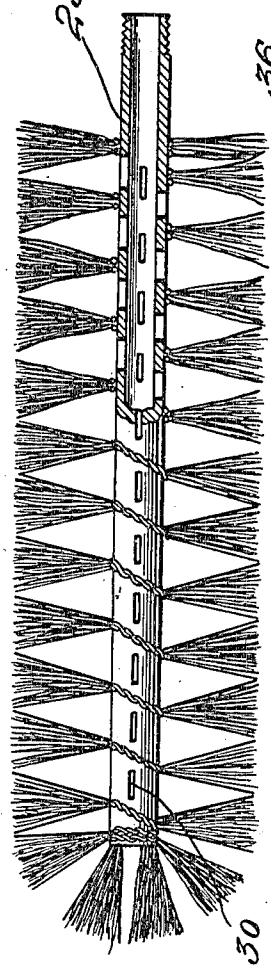


Fig. 5.

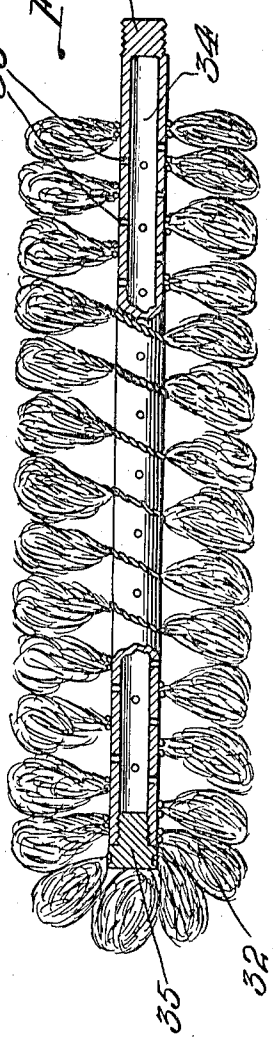
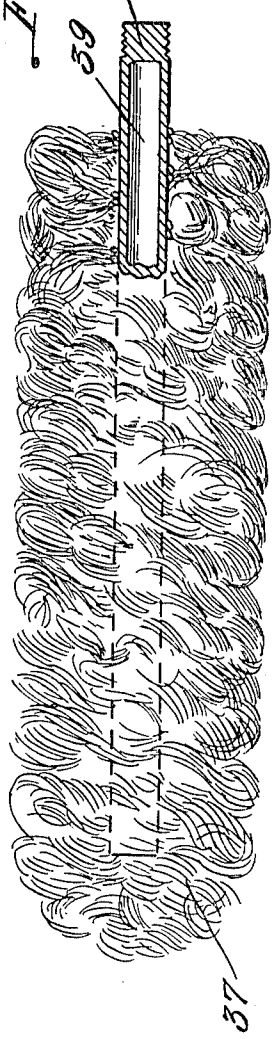


Fig. 6.



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UNITED STATES PATENT OFFICE.

EDMOND C. JOSEPH, OF NEW ORLEANS, LOUISIANA.

WASHING AND POLISHING DEVICE.

Application filed August 17, 1925. Serial No. 50,789.

This invention relates to improvements in washing and polishing devices for use in washing and polishing motor vehicles and contemplates the provision of a water motor having a hollow forward end portion of the drive shaft therefor and within which the water may be forced outwardly and into and discharged from a brush to be applied to the outer end of the drive shaft.

Another object of my invention is the provision of multiple water inlet ports arranged upon the opposite sides of the motor housing and said water is adapted to be deflected against the forwardly inclined propeller blades arranged within the motor housing and owing to the provision of the said multiple inlet ports and the construction of the propeller blades it will be noted that a great rate of speed may thus be attained and the said water will be forced outwardly at a greater rate of speed than is the usual custom in using straight side propeller blades and force the said water outwardly and within the hollow forward end portion of the drive shaft.

A further object of my invention is the provision of an outlet or exhaust port provided upon the forward end of the motor housing through which the water may be discharged when using a closed end brush upon the forward end of the hollow drive shaft when merely using the said water motor as a means of propulsion.

With the above and other objects in view, the invention further includes the following novel features and details of construction, to be hereinafter more fully described, illustrated in the accompanying drawings and pointed out in the appended claim.

In the drawings:—

Figure 1 is an elevation of my invention showing the same in operation.

Figure 2 is a longitudinal sectional view thereof.

Figure 3 is a vertical sectional view taken on line 3—3 of Figure 2.

Figures 4, 5 and 6 are fragmentary elevations of washing, polishing applying and polish brushes respectively.

Referring to the drawings in detail, wherein like characters of reference denote corresponding parts, the reference character 10 indicates a motor housing having a reduced discharge pipe 11 extending forwardly thereof while an end cap 12 closes the inner end of the housing 10. Mounted in a ball race 13 provided with anti-friction members, as shown and formed centrally of a partition 14 arranged within the motor housing 10 is a bearing 15 which is disposed on the inner reduced end portion of a drive shaft 16. Keyed or otherwise secured, as indicated at 17 in Figure 3 of the drawings, is a sleeve 18 having forwardly inclined and oppositely disposed propeller blades 19 provided upon the outer sides thereof, the forward end of the drive shaft 16 is relatively enlarged and made hollow as at 20 and apertures 21 are provided in the wall of the hollow portion, the purpose of which will be presently apparent. The packing gland 22 is included within the discharge pipe 11 and within which is received the forward hollow end of the drive shaft 16 while a bearing 23 is arranged within the forward end portion of the discharge pipe 11 and rigidly secured to the periphery or outer sides of the said drive shaft in order that the said shaft will freely rotate within the discharge pipe 11.

As clearly illustrated in Figures 1 and 2 of the drawings, I have illustrated a multiple inlet means for the motor housing 10 in the form of inlet pipes 24 arranged upon diametrically opposite sides of the motor housing 10 and having communication therewith through the instrumentality of openings 25 provided therein while the outer end portions of the inlet pipes 24 are connected to a singular inlet cap 26 to which the outer end of a hose, not shown, may be attached. Arranged upon the outer side of and at an appropriate length upon the discharge pipe 11 is a discharge port 27 having closure cap 28 therefor.

In the mode of operation of the present invention it is clearly apparent and manifest that when a hose, not shown, is attached to the outer end of the cap 26 that the said water will find its way through the inlet pipes 24 connected with the said cap 26 and find its way through the openings 25 provided upon opposite sides of the motor housing 10 and have the contents thereof, under pressure, forced against and be deflected by inclined propeller blades 19 included upon the sleeve 18, which owing to their pitch will force the said water, at a great rate of speed owing to the provision of the ports upon the opposite sides of housing 19, within a discharge pipe 11 and within the openings 21 provided in the outer enlarged portion of the drive shaft 16 and into the hollow bore 20

thereof and thence be forced outwardly through the outer forward end of the said drive shaft 16.

When washing a motor vehicle or the like the closure cap 28 is threaded within the exhaust port 27 and the inner end of a washing brush shank 29 including a plurality of elongated slots 30 provided throughout the length thereof is threaded within a union 31 included upon the outer end portion of the drive shaft 16 and within which is forced the supply of water thus generating the momentum for the motor and when so set in motion the centrifugal force attained from the speed thus generized will force the water outwardly through the elongated slots 30 in the hollow shank 29 and be brushed upon the body of the vehicle.

When it is desirous to apply polish to the vehicle body after the process of washing the same by the first mentioned brush, a polish applying brush 32, as indicated in Figure 5 of the drawings, has its closed inner end portion 33 fitted within the union or nipple 31 included upon the forward end of the drive shaft 16 while a remainder of its length includes a longitudinally disposed bore 34 therein and closed at its outer end by a plug 35 in order that polish or the like when poured into the bore 34 will be held therein.

This polish applying brush 32 includes a plurality of openings 36 arranged upon the outer sides and having communication with the hollow longitudinally disposed bore 34 thereof, the purpose of which will be presently apparent. In the use of this polish applying brush 32 it is of course obvious that no quantity of water is permitted to enter the longitudinally disposed bore 34 thereof and mix with the polish therein in so far as the inner end of the bore 34 is closed as indicated at 33 and in so doing the cap 28 is removed from the exhaust port 27 in order that the water thus propelling and deflecting against the propeller blades 19 will be caused to back up within the discharge pipe 11 and through the exhaust port 17 in order that the said polish applying brush 32 upon its rotations will force the polish thus contained within the bore 34 thereof by the centrifugal force thus attained into the bristles arranged thereon and brushing the same into the body of the vehicle, not shown.

The polish brush as indicated at 37 in Figure 6 of the drawing has the inner end 38 of its bore 39 closed in order that none of the water used in the propulsion of the brush will enter the same, in the same instance in the rotation of the polish applying brush 32, and which will be rotated in a similar manner to the said polish applying brush 32 in order that the said polish applied upon the body of the vehicle may be brushed in by the said polish brush 37.

The invention is susceptible of various changes in its form, proportions and minor details of construction, and the right is herein reserved to make such changes as properly fall within the scope of the appended claim.

Having described my invention what is claimed is:—

A device of the character described comprising a housing having a discharge pipe extending outwardly from the forward end thereof, a partition arranged within the inner end of the housing and being formed with a ball race, a drive shaft having one end portion journaled in the ball race, the other end portion being hollow and journaled in the discharge pipe, said hollow end portion being provided with apertures in its wall, a bearing on said drive shaft, anti-friction members between said bearing and ball race, a sleeve fixed to the drive shaft within the housing and having oppositely disposed forwardly inclined propeller blades thereon, inlet ports having communication with the housing upon diametrically opposite sides thereof and a hollow brush head secured to the hollow end portion of the shaft.

In testimony whereof I affix my signature.

EDMOND C. JOSEPH.