Nov. 12, 1968 R. J. SLAMA 3,409,924

PORTABLE CAR WASHER

Filed May 29, 1967

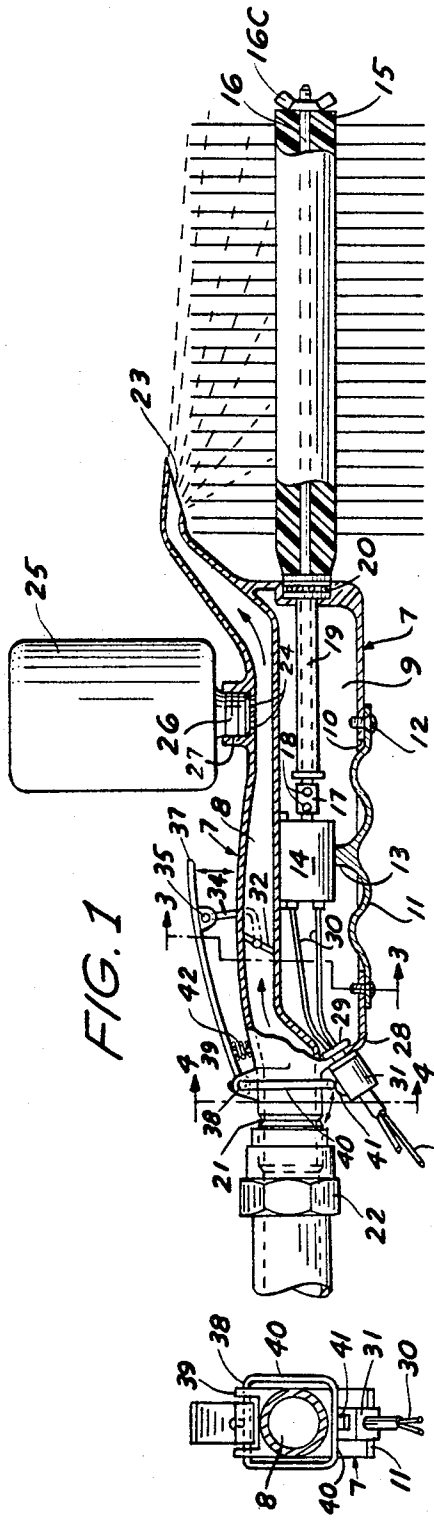


FIG. 1

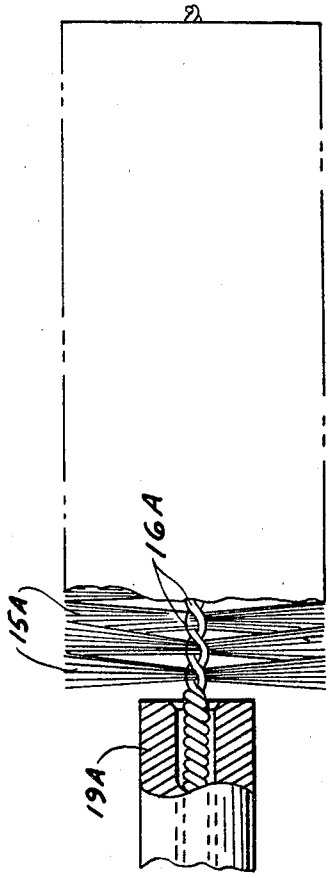


FIG. 2

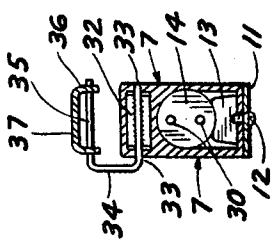


FIG. 3

FIG. 4

RUSSELL J. SLAMA
INVENTOR.

BY Edward M. Apple

ATTORNEY

United States Patent Office 3,409,924 Patented Nov. 12, 1968

3,409,924

PORTABLE CAR WASHER

Russell J. Slama, 27037 Vance, Madison Heights, Mich. 48071

Filed May 29, 1967, Ser. No. 642,040
7 Claims. (Cl. 15—24)

ABSTRACT OF THE DISCLOSURE

This application discloses a power driven rotary brush mounted in a handle with water and detergent, or soap, inlet means and means to discharge the water, with or without the soap, onto the brush.

In the modern world of automotive vehicles the work of keeping the vehicles clean has developed into a nationwide industry. Automatic and semi-automatic washing devices are in now common use, but the labor required to supervise and operate such equipment still poses quite a problem. To offset such labor difficulties, the "Do-It-Yourself" wash racks have more and more come into common use. It is to that field of activity that this invention is directed.

It is, therefore, an object of this invention to provide a portable device for washing motor vehicles which may be employed commercially in the "Do-It-Yourself" type of car wash emporiums, or it may be used with equal facility by the car owner, on or about his private domain.

Another object of the invention is to provide a device of the character indicated in which the brush is rotated by means of an electric motor built into the handle.

Another object of the invention is to provide a washing device of the character indicated which is provided with a soap or detergent media supply with means to control its dispensation during the washing and rinsing of the vehicle.

Another object of the invention is to provide a device of the character indicated with a rotary brush which may be driven by means of the vehicle 12 v. battery or may be connected to a domestic 110 v. power supply.

Another object of the invention is to generally improve car washing devices and to provide a device which is simple in construction and economical to manufacture and efficient in operation.

Another object of the invention is the provision of a device of the character indicated which is constructed with water intake and exhaust outlets and with electrical means for rotating the brush and common means for controlling the water supply and electrical power supply.

The foregoing and other objects and advantages of the invention will become more apparent as the description proceeds, reference being made from time to time to the accompanying drawing, forming part of the within disclosure, in which drawing:

FIG. 1 is a vertical section taken through a device embodying the invention.

FIG. 2 is an enlarged fragmentary view of a modified form of brush and brush support.

FIG. 3 is a section taken substantially on the line 3—3 of FIG. 1.

FIG. 4 is a section taken substantially on the line 4—4 of FIG. 1.

Referring now more particularly to the drawing, it will be understood in the embodiment herein disclosed the reference character 7 indicates, in general, the housing of the device, which housing may be made of a plastic or rubber composition. The housing 7 is divided into two compartments 8 and 9, the compartment 8 being

the water compartment and the compartment 9 being the motor compartment. The lower wall of the compartment 9 has an opening 10 therein, which is covered by means of a close plate 11, which is held in position by means of screws 12, or other suitable means.

The outer surface closure member 11 is undulated, which undulations serve as finger grips for the device when in use. The closure member 11 is provided with an inwardly directed boss 13, which serves as a support for the motor 14, which rotates the brush 15, as hereinafter described.

The spindle 16 of the brush 15 is connected to the motor 14 by means of a fitting 17, which is provided with set screws 18. The core of the brush 15 is held on the spindle 16 by means of a wing nut 16C.

The spindle 16 rotates in a tubular member 19 and a bearing member 20 which is supported by an end wall of the housing 7.

The motor 14 and the connection 17 are serviced through the opening 10 when the closure member 11 is removed.

The compartment 8 terminates at the leading end in a fitting 21 to which may be secured the fitting 22 of a conventional garden hose. The opposite end 23 of the compartment 8 has a discharge opening therein through which water is discharged onto the brush 15. The discharge opening is angularly positioned so that water may be deposited over a large area of the brush.

The upper wall of the compartment 8 is provided with a series of openings 24 through which soap or a detergent may be introduced into the compartment 8 from a receptacle 25, the neck 26 of which threadedly engages a threaded collar 27, formed as part of the wall of the compartment 8. The neck 26 of the receptacle 25 has a perforated closure, the perforations of which aline with the openings 24 upon the rotation of the receptacle 25. In this manner the introduction of soap or detergent into the water stream is controlled.

The end 28 of the housing 9 has an opening therein in which is fitted a rubber grommet 29, through which is extended the electrical wires 30, which provide the electrical energy for the motor. The wires 30 may be connected to the battery of the motor vehicle through the conventional cigar lighter element, or may be connected to a 110 volt domestic power line. If the battery electrical source is employed the motor 14 would be a DC motor, and if the 110 volt domestic power line is used the motor 14, of course, would have to be an AC motor.

In order to control the electrical input to the motor 14, I provided a switch 31 which is normally open.

In order to control the flow of water through the compartment 8, I provide a butterfly type valve 32, which is rotatable with the lateral extension 33 of a rod 34 which is pivoted for rotation in the wall of the housing 7. The rod 34 has an upper lateral extension 35 (FIG. 3), which is carried by perforated ears 36, depending from a control level 37.

The rear end of the lever 37 is secured to the transverse portion 38 (FIG. 4) of a rod element which is pivoted in ears 39, integrally formed with the housing 7.

The rod 38 has a depending U-shaped yoke portion 40, the bottom of which is arranged to contact the switch lever 41 in order to actuate the switch 31.

The lever 37 is spring backed as at 42, so that it is always in elevated position, as shown in FIG. 1, unless pressure is exerted upon it by the hand of the operator when the device is in use. When the lever 37 is in the position shown in FIG. 1, the valve 32 will be closed and the flow of the water through the compartment 8 will be shut off.

By the same token, the yoke portion **40** of the rod will be moved to the left (FIG. 1) to open the switch **31**, so that there is no electrical energy to the motor **14**.

When the device is gripped in the hand of the operator the palm of the hand will rest on the lever **37** and the fingers will grip the undulating portion **11** of the device, and by squeezing the hand the lever **37** will be actuated to open the valve **32** and close the switch **31**, to admit and discharge water to the brush and start the rotation of the motor **14** and the brush **15**.

Soap or detergent is introduced into the water flow by rotating the receptacle **25**. After the vehicle is washed with soap or detergent suds the vehicle may be rinsed by cutting off the supply of soap or detergent. When pressure is released on the lever **37** the flow of water and the rotation of the motor **14** is terminated. If the water supply is cut off ahead of the valve **32** the motor and brush may be used for buffing the vehicle.

In FIG. 2, I show a modified form of brush for use with the device. In this modification the bristles **15A** of the brush are preferably made of plastic and are twisted into the spindle **16A**. In this embodiment the spindle **16A** is supported primarily by the tubular element **19A**.

It is believed that the operation of the device is obvious from the foregoing description.

Having described my invention, what I claim and desire to secure by Letters Patent is:

1. A car washing device comprising a housing, a brush rotatably supported by said housing, a water compartment in said housing having a discharge opening at one end adjacent said brush and an intake opening at the opposite end, a water supply in communication with said last opening, a soap supply communicating with said water compartment, a motor in said housing for rotating said brush, a power supply connected to said motor, and common control means for regulating said water supply and said power supply.

2. The structure of claim **1**, which said control means includes a spring biased lever which actuates a valve in said water compartment and actuates a switch in an electric circuit to said motor.

3. The structure of claim **1**, in which said common control means includes a spring biased lever mounted on top of said housing with linkage connected to a water valve in said housing, and linkage positioned to actuate a switch in an electric circuit connected to said motor, said lever being arranged to open said water valve and close said switch when said lever is depressed against said spring.

4. The structure of claim **3**, in which said housing has a finger grip section on the side opposite said lever and is arranged, so that when hand pressure is exerted between said finger grip and said lever, said water valve is opened and said switch is closed.

5. The structure of claim **1**, in which said housing is provided with a compartment for housing said motor, the wall of said motor compartment having an opening which is covered with a closure member having an undulating outer surface, which serves as a finger grip.

6. The structure of claim **1**, in which said water discharge opening is angularly arranged whereby to discharge water over a substantial portion of said brush.

7. The structure of claim **1**, in which said brush is provided with an elongated spindle, which is supported in part for rotation by a tubular member positioned within the said housing.

References Cited

UNITED STATES PATENTS

1,604,500	10/1926	Tannenbaum	15—29
1,611,874	12/1926	Becker	15—24
2,198,322	4/1940	Schrader	15—50 X
3,366,288	1/1968	Goldschein	15—50 X

EDWARD L. ROBERTS, *Primary Examiner.*