May 8, 1928. 1,668,931

J. W. ZIMMER

FOUNTAIN BRUSH

Filed Sept. 16, 1927

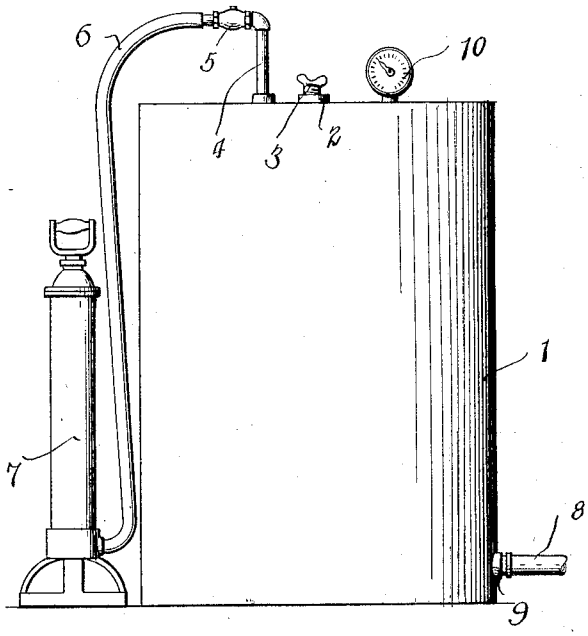


Fig. 1.

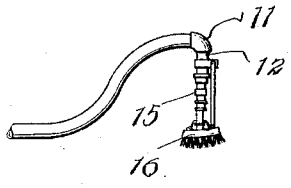


Fig. 2.

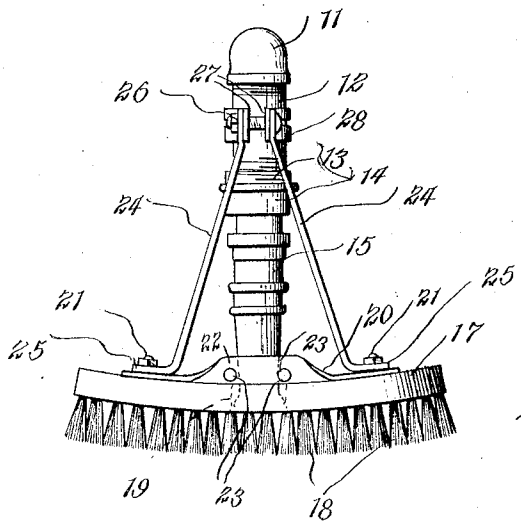
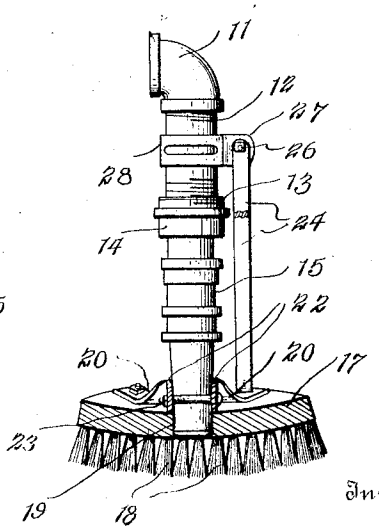


Fig. 3



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Patented May 8, 1928. 1,668,931

UNITED STATES PATENT OFFICE.

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FOUNTAIN BRUSH.

Application filed September 16, 1927. Serial No. 219,978.

This invention relates to brushing and scrubbing and more particularly to a fountain brush by means of which an automobile or other vehicle may be easily washed and very thoroughly cleaned.

One object of the invention is to provide a cleaning apparatus including a storage tank from which water is forced by air pressure through a hose having a nozzle at its outer end so that passage of water from the hose may be controlled and a brush secured upon the nozzle so that the automobile or other vehicle may be scrubbed while water under pressure is applied to it.

Another object of the invention is to securely hold the brush upon the nozzle and brace the brush against tilting movement so that when in use the brush will not be worked loose from the nozzle or forced out of proper position with respect to the nozzle.

Another object of the invention is to permit movement between the brush and nozzle so that the nozzle may be turned to control the flow of water through the nozzle.

Another object of the invention is to permit the brush to be removed when desired or a new brush substituted when the one in use is worn out.

The invention is illustrated in the accompanying drawing, wherein

Figure 1 is a view showing the improved cleaning apparatus in elevation;

Fig. 2 is an enlarged view showing the brush and nozzle in elevation, and

Fig. 3 is a view taken at right angles to Fig. 2 showing the nozzle in elevation and the brush in section.

The cleaning apparatus includes a tank 1 preferably formed of metal and of any capacity desired. Water is poured into the receptacle through the inlet 2 and after the desired amount of water has been poured into the receptacle the closure plug 3 is screwed tightly into place. A pipe 4 extends upwardly from the tank and carries a check valve 5 which opens towards the pipe 4 and is engaged by a tube 6 leading from a hand pump 7. It will thus be seen that air may be forced from the pump past the valve into the tank or receptacle 1 in order to apply pressure to the water and force the water through the hose 8 leading from the outlet 9 at the bottom of the receptacle. A gage 10 is provided so that the air pressure may be determined and additional air forced into the tank when necessary.

The hose 8 is of a conventional construction similar to those used for garden purposes and may be of any length desired. At its outer end the hose is provided with the usual coupling to carry a nozzle and after the nozzle has been removed an elbow 11 is screwed upon the coupling. This elbow carries a nipple 12, the outer end of which is screwed into a sleeve 13 externally threaded and received in the socket 14 of the nozzle 15 previously removed from the hose. It will, therefore, be seen that the nozzle is a conventional hose nozzle of the type which is rotated in order to control the flow of water through the nozzle.

The brush 16 includes a back 17 carrying bristles 18 which are secured in the back in any desired manner and the back is formed with an opening 19 in its center of sufficient size to snugly receive the forward end of the nozzle, as shown in Fig. 3. Metal strips 20 are secured upon the back by bolts 21 and extend longitudinally of the back at opposite sides of the opening 19 so that their intermediate portions 22 which are twisted to project away from the brush head may engage opposite sides of the nozzle, as shown in Fig. 3. Securing bolts 23 are passed through the intermediate portions of the strips at opposite sides of the nozzle, as shown in Fig. 2, and when tightened will draw the strips toward the nozzle so that they bear against the nozzle and will prevent the brush from slipping out of proper engagement with the nozzle. It should be noted, however, that the bolts are not tightened sufficiently to prevent the nozzle from being rotated in order to control the flow of water through the nozzle.

In order to brace the brush against tilting and prevent it from being worked out of proper engagement with an angular relation to the nozzle, there has been provided rods or arms 24 which are formed of metal and have their lower ends bent to provide feet 25 through which the securing bolts 21 pass. The rods converge upwardly and at their upper ends are formed with openings to receive the bolt 26 which also passes through the ears 27 of a clamp 28 fitted about the nipple 12. The clamp may be tightened so that it is held stationary upon the nipple or may be left loose enough to permit it to turn and thereby allow the brush to rotate about the nozzle. It will thus be seen that when cleaning an automobile the brush may

be turned to dispose its longest dimension either horizontally or vertically and thereby allow all portions of the automobile to be easily washed. When it is desired to use the hose without a brush, the clamp and the bolts 23 are loosened or removed and the brush may be easily detached from the nozzle. When the brush becomes worn out, it can be easily removed and a new one substituted. It will also be obvious that a brush having bristles may be removed and a brush of a different type substituted if so desired.

Having thus described the invention, I claim:

1. In a device of the character described, a nozzle, a nipple connected with said nozzle, a collar about said nipple, a cleaner having a back formed with an opening receiving the forward end portion of said nozzle, strips secured against the back of said cleaner in transversely spaced relation to each other and having their intermediate portions twisted to project from the back and bear against opposite sides of the nozzle, fasteners passed through the intermediate portions of said strips to retain the same in engagement with the nozzle, and bracing arms secured to said collar and extending therefrom longitudinally of the nozzle in diverging relation to each other and secured at the respective ends of one of said strips.

2. In a device of the character described, a nozzle, a nipple connected with said nozzle, a cleaner having a back formed with an opening receiving the forward end portion of said nozzle, strips carried by the back of said cleaner with the nozzle disposed between their intermediate portions, fasteners passed through the intermediate portions of the strips at opposite sides of the nozzle to retain the strips in engagement with the nozzle, a collar about said nipple, and bracing arms secured to said collar and extending therefrom longitudinally of the nozzle and secured to one of said strips adjacent the respective ends thereof.

3. In a device of the character described, a nozzle, a nipple connected with said nozzle, a collar about said nipple, a cleaner having a back formed with an opening receiving the forward end portion of said nozzle, strips secured against the back of said cleaner in transversely spaced relation to each other and having their intermediate portions projecting from the back and bearing against opposite sides of the nozzle, means to retain the intermediate portions of said strips in engagement with opposite sides of the nozzle, and bracing arms secured to said collar and extending therefrom longitudinally of the nozzle and secured to the respective end portions of one of said strips.

In testimony whereof I affix my signature.

JACOB W. ZIMMER. [L. S.]