M. BACON.

SCRUBBING DEVICE.

APPLICATION FILED DEC. 13, 1916.

1,223,658. Patented Apr. 24, 1917.

Fig. 1

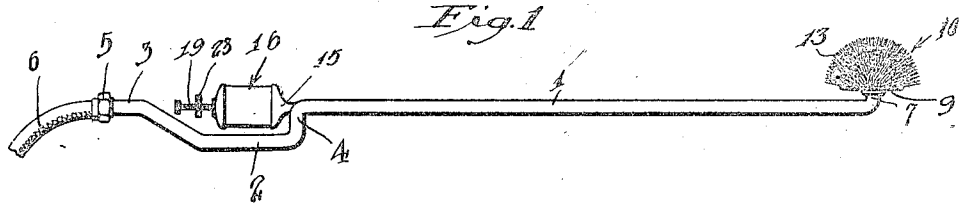


Fig. 2

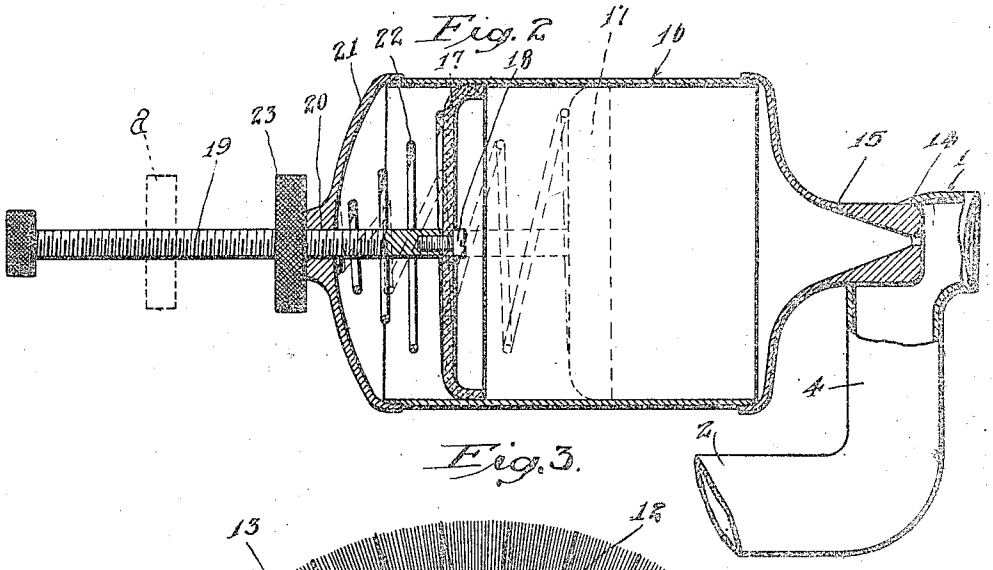
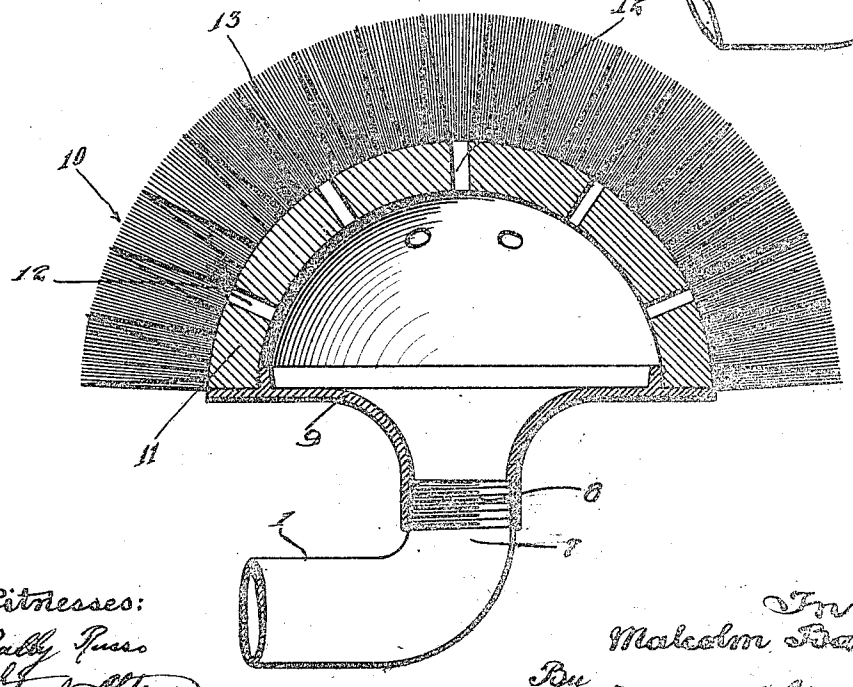


Fig. 3.



Witnesses:
Sally Russo
Lilo D. Allen.

Inventor
Malcolm Bacon
By Patrick & Bacon Atty

UNITED STATES PATENT OFFICE.

MALCOLM BACON, OF EAGLE ROCK, CALIFORNIA.

SCRUBBING DEVICE.

1,223,658. Specification of Letters Patent. Patented Apr. 24, 1917.

Application filed December 13, 1916. Serial No. 136,631.

To all whom it may concern:

Be it known that I, MALCOLM BACON, a citizen of the United States, residing at Eagle Rock city, in the county of Los Angeles and State of California, have invented a new and useful Scrubbing Device, of which the following is a specification.

This invention relates to devices of the character designed to scrub automobiles and the like, especially the parts which ordinarily are more or less inaccessible to the person doing the washing, and an object of the invention is to produce a device of this character which is of simple construction and not liable to get out of order.

Another object is to produce a device of this character in which a cleansing agent such as liquid soap can be injected into the stream of water in the most advantageous way.

Other objects and advantages will appear in the subjoined detail description.

The accompanying drawings illustrate the invention:

Figure 1 is a side elevation of a scrubbing device embodying the invention, a fragment of hose connected therewith also being shown.

Fig. 2 is an enlarged elevation mainly in mid-section of the injector for injecting the cleansing agent, a fragment of the water tube also being shown.

Fig. 3 is an enlarged vertical section of the brush in Fig. 1, a fragment of the water tube also being shown.

There is provided a single-piece water tube comprising a relatively long straight portion 1 forming a mixing chamber, a bent or offset intermediate portion 2 and a relatively short straight portion 3 in axial alinement with the straight portion 1. The offset portion 2 is bent substantially at right angles at 4 to the straight portion 1.

The straight portion 3 is designed to be connected by a coupling 5 to a hose 6 extending to some suitable source of water supply, not shown. Adjoining the straight portion or mixing chamber 1 of the water tube is a terminal portion 7 bent substantially at right angles to the straight portion 1 and fastened by screw threads 8 or the equivalent to a circular outwardly expanding head 9 of a brush indicated in general by the character 10. The brush 10 comprises a hemispherical body 11 screw-threaded or otherwise fastened to the head 9 and having ports 12 which open outwardly into a brush surface 13 formed of bristles or the equivalent.

At the juncture of the straight portion 1 and right angular portion 4 of the water tube, said tube is provided with a hole 14, the axis of which coincides with the axis of the straight portion 1. Into the hole 14 is inserted a nozzle 15 of a container 16 adapted to hold liquid soap or other suitable cleansing agent. The container 16 may be cylindrical and is provided with a plunger 17 fitting therein. To the plunger 17 is fastened by a screw 18 a screw threaded stem 19 which passes through a smooth walled hole 20 in the head 21 of the container.

Between the container head 21 and the plunger 17 is a coil spring 22 adapted to force the plunger 17 toward the nozzle 15 so as to express the contents of the container into the water tube. To prevent at times the pressure of the spring 22 being effective to move the plunger 17 to express the contents of the container, the stem 19 is provided with a nut 23 which, when desired, may be screw threaded up against the head 21 so as to prevent the stem 19 from being drawn inward through the hole 20, and thereby holding the plunger against the pressure of the spring.

In practice, to use the device, assuming that the hose 6 is connected to a suitable source of water supply, not shown, the person using the device will manipulate the same to bring the brush 10 into engagement with the parts to be cleansed and the water will flow from the water tube into the brush body 11 and through the ports 12 so as to constantly clean the brush surface 13 during the scrubbing operation.

The foregoing operation may be performed when the nut 23 is seated against the head 21 but, if it is desired to impregnate the water passing through the water tube with a cleansing agent, such, for instance, as liquid soap, the nut 23 will be adjusted outward on the stem 19, as indicated in broken lines *a*, Fig. 2, so as to allow the pressure of the spring 22 to force the plunger 17 toward the nozzle 15. Assuming that liquid soap or other suitable cleansing agent is in the container in front of the plunger 17, the plunger 17 thus forced by the spring 22 will gradually and constantly force a small portion of the liquid soap or other cleansing agent from the container 16

into the straight portion 1 of the water tube and said cleansing agent will there thoroughly mix with the water and pass with the water into the brush surface and onto the surface being scrubbed. By injecting the cleansing agent with the device described above, it is clear that but a small portion of the cleansing agent at a time will enter the water tube and therefore said agent will not be wasted, and owing to the nozzle 15 being inserted in the straight portion 1 coaxial with said straight portion and at right angles to the bent portion 4, there is no tendency of the water passing through the water tube to wash backward into the container so as to wash out the contents thereof.

The foregoing makes clear the operation and usefulness of the device.

I claim:

1. A scrubbing device comprising a water tube having a relatively long straight portion and having portions bent at right angles to said straight portion at both ends thereof, a container having a nozzle inserted in the water tube at the juncture of the straight portion and one of the bent portions with the axes thereof coinciding, means in the container to express the contents thereof, and a brush having a hollow body provided with ports, said body being fastened to the other bent portion.

2. A scrubbing device comprising a water tube having a relatively long straight portion and having an intermediate offset portion and having a short relatively straight portion in axial alinement with the relatively long straight portion, there being a hole having its axis coinciding with the axis of the relatively long straight portion of the tube, a nozzle inserted in said hole, means adjacent the offset portion of the water tube to force a cleansing agent through said nozzle into the water tube, and a brush having a hollow body provided with ports and connected with said relatively long straight portion of the water tube.

Signed at Los Angeles, California, this 6th day of December, 1916.

MALCOLM BACON.

Witnesses:
GEORGE H. HILES,
L. BELLE WEAVER.