June 11, 1940.

J. A. WISNER

2,204,200

FOUNTAIN CLEANING DEVICE

Original Filed Nov. 27, 1935

Fig. 1.

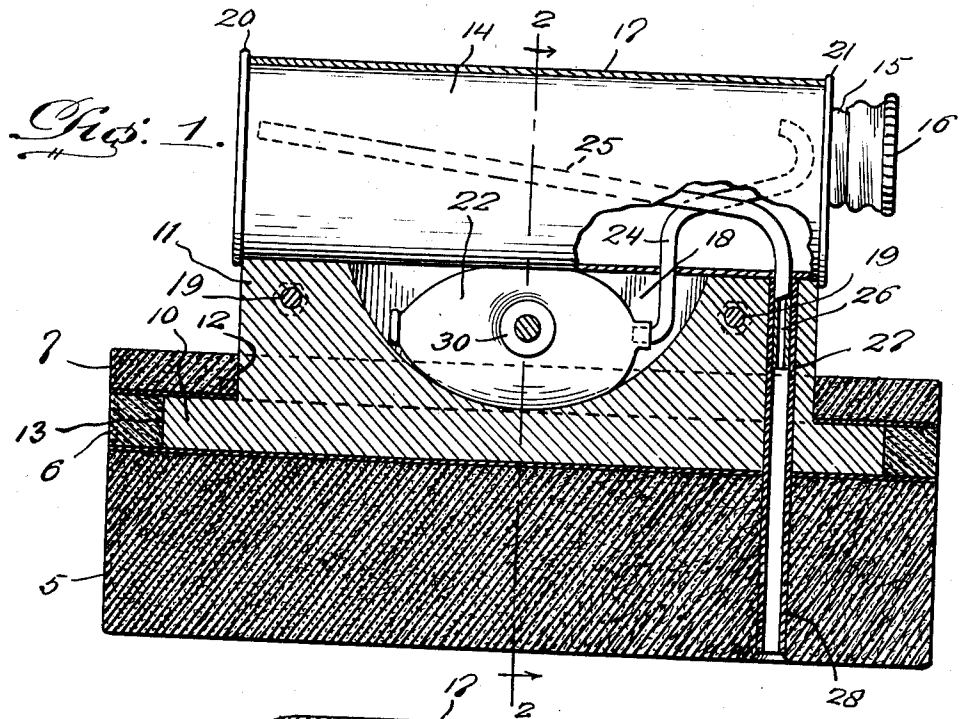
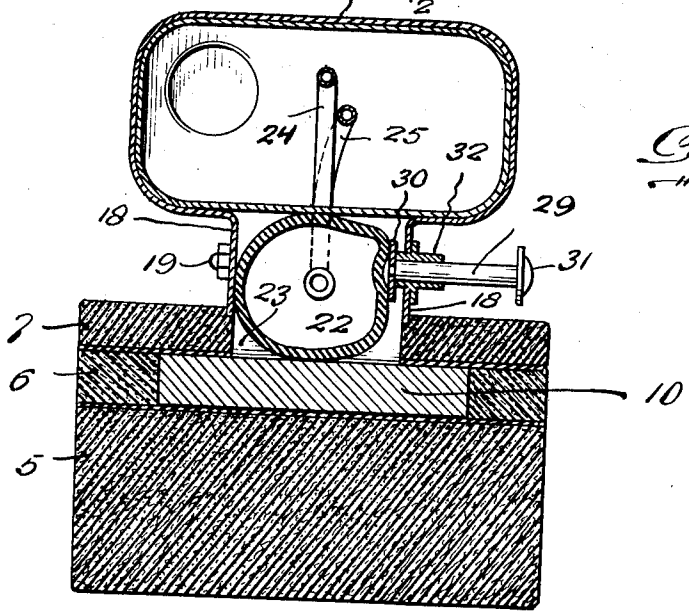


Fig. 2.



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FOUNTAIN CLEANING DEVICE

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Original application November 27, 1935, Serial No. 51,929. Divided and this application August 5, 1937, Serial No. 157,601

4 Claims. (Cl. 15—131)

The present invention relates to an improved fountain cleaning device primarily intended to use a chemical solution for loosening grease and dirt from the finished surfaces of walls, woodwork and the like, whereby such grease and dirt may be subsequently readily wiped from such surfaces.

The present application is a division of my copending application, Ser. No. 51,929, filed Nov. 27, 1935, which has matured into Patent No. 2,110,188, and is directed to the reservoir with its liquid discharging means and the assembly of said reservoir and said means.

A further object of the invention is to provide a cleaning device of the above kind which is simple and durable in construction and otherwise well adapted for the service required of it.

Still further objects of the invention relate to certain novel and improved form, arrangement and combination of parts hereinafter described, shown in the accompanying drawing, and claimed.

In the drawing:

Figure 1 is a certain longitudinal section of a fountain cleaning device embodying the present invention; and

Figure 2 is a transverse section thereof taken on the plane of line 2—2 of Figure 1.

Referring more in detail to the drawing, the present cleaning device preferably includes an applicator in the nature of a sponge and preferably formed of close grained sponge rubber. This applicator preferably comprises a relatively thick main body portion 5 affording the working faces of the applicator, and supplementary layers 6 and 7 of sponge rubber secured together and upon the main body portion 5, as described in my above-mentioned copending application.

The present cleaning device further embodies a head or carrier for the applicator including a plate-like back member 10 provided with a central longitudinal upstanding rib 11.

The head of the cleaning device further includes a receptacle or reservoir 14 for the chemical cleaning solution, which receptacle or reservoir is preferably in the nature of a metal can having a filler neck 15 at one end closed by a removable cap or other closure 16. This reservoir is adapted to provide a handle for the device when in use and is laid on one side in a horizontal position so as to rest centrally upon the top of the rib 11 of back member 10 and to be secured in this position. For the latter purpose, a securing band 17 of sheet metal embraces the body of the reservoir 14 and has downturned end flanges 18 flatly engaging the sides of the rib 11 and bolted to the latter as at 19. The receptacle 14 preferably has outwardly directed beads 20 and 21 at the ends of the body thereof between which the securing band 17 snugly engages or fits so that said reservoir is effectively held against endwise displacement relative to the rib 11.

Manually operable means is provided for delivering small quantities of the chemical cleaning solution from the reservoir 14 to the bottom working surface of the main body portion 5 of the applicator, at will. As shown, this means may consist of an air pump 22 of the bulb type arranged in a recess 23 provided in the top of rib 11 intermediate the ends thereof. The recess 23 may extend transversely entirely through the rib 11, the pump 22 being retained therein by the flanges 18 of the securing band 17. The air pump 22 has an air discharge pipe 24 at one end that extends through the adjacent side wall of reservoir 14 and terminates within the latter at a point near the end of said reservoir where the filler neck 15 is provided. A discharge pipe 25 is also located in the reservoir 14 with its intake end disposed adjacent the normal bottom end of reservoir 14 or the end of the latter opposite that provided with the filler neck 15. This discharge pipe 25 extends outwardly and downwardly through the side of reservoir 14 which is lowermost in Figure 1 and snugly projects into the adjacent end of a flexible rubber tube 26 whose upper end is fitted and secured within a vertical passage 27 provided through the back member 10 and its rib 11 near one end of the latter. The lower end of tube 27 extends downwardly through a vertical opening 28 in the main bottom portion 5 of the applicator and terminates at its lower end substantially flush with the bottom working face of said main body portion 5.

In view of the above description, it will be seen that the pump 22 may be operated to force air under pressure into the upper portion of said reservoir 14 above the surface of the chemical cleaning solution contained within said reservoir 14. As the pump 22 is operated, a small quantity of the chemical cleaning solution will be ejected at each operation of the pump through the discharge pipe 25 and feed tube 27, the discharged solution being delivered to the bottom working surface of the applicator. By grasping the reservoir 14 in one hand, the cleaning device may be reciprocated over the surface to be cleaned, the chemical cleaning solution supplied

to the working surface of the applicator acting to effectively loosen dirt and grease from such surface so that it may subsequently be readily wiped from the latter.

To facilitate manual actuation of the pump 22, I preferably provide a plunger 29 movable transversely through one of the flanges 18 of the clamping band 17 and at one side of said pump 22. The plunger 29 preferably has a head 30 on its inner end arranged to engage the adjacent side of pump 22, and the outer end of plunger 29 preferably has a head or finger piece 31 to facilitate actuation thereof. Obviously, by simply pressing inwardly on the plunger 29, the bulb of the pump 22 will be partially collapsed so as to force the air therefrom through the pipe 24 into the reservoir 14. As soon as the plunger 29 is released, the bulb of pump 22 will automatically return to normal expanded position for taking in a new charge of air through a valve (not shown) as is common with pumps of this type. The plunger 29 may be properly guided by a slide bearing 32 carried by the adjacent flange 18 of clamping band 17.

From the foregoing description, it will be apparent that the present cleaning device is comparatively simple and durable and may be efficiently employed for the intended purpose. The parts may be economically made and assembled as well as readily taken apart for renewal or repair of parts.

What I claim as new is:

1. In a cleaning device, a rigid plate-like back member having a central upwardly projecting longitudinal rib, a handle-forming reservoir for a chemical cleaning solution secured upon said rib, manually operable means for discharging limited quantities of the cleaning solution from said reservoir, the upstanding rib of the back member having a recess in the top thereof, said cleaning solution discharging means including an air pressure pump of the bulb type arranged within said recess and having an air discharge pipe extending into said reservoir whereby the cleaning solution in the latter may be placed under pressure, a discharge pipe communicaing with the interior of the reservoir and projecting downwardly therefrom, and the back member and its rib having a passage receiving the projecting portion of said discharge pipe.

2. In a cleaning device, a rigid plate-like back member having a central upwardly projecting longitudinal rib, a handle-forming reservoir for a chemical cleaning solution secured upon said rib, manually operable means for discharging limited quantities of the cleaning solution from said reservoir, said reservoir comprising a can having a filling opening and provided with outstanding beads at opposite ends thereof, and the means for securing the reservoir upon the rib comprising a clamping band embracing the reservoir between said beads and having depending flanges secured to and against opposite sides of said rib of the back member.

3. In a cleaning device, a rigid plate-like back member having a central upwardly projecting longitudinal rib, a handle-forming reservoir for a chemical cleaning solution secured upon said rib, manually operable means for discharging limited quantities of the cleaning solution from said reservoir, said reservoir comprising a can having a filling opening and provided with outstanding beads at opposite ends thereof, the ends of said rib being located between said beads whereby there will be no rectilinear relative movement in one direction between the reservoir and the rib, the means for securing the reservoir upon the rib comprising a clamping band embracing the reservoir between said beads and having depending flanges secured to and against opposite sides of said rib of the back member, the means for discharging the cleaning solution from the reservoir comprising an air pump of the bulb type, the rib of the back member having a recess within which said air pump is arranged, and a manually operable plunger for collapsing said air pump mounted in a flange of the clamping band for sliding movement transversely of said rib of the back member and with its inner end engaged with one side of said air pump.

4. A cleaning device comprising a rigid plate-like back member, an upwardly projecting longitudinally extending rib, a handle-forming fluid reservoir secured upon said rib, depending beads in parallel planes on said reservoir, each bead adapted to engage a complementary edge of said rib whereby the bead and edge will limit relative movement of the reservoir and the rib, a clamping band embracing the reservoir between said beads and having depending flanges secured to and against opposite sides of said rib of the back member.

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