

Dec. 15, 1931.

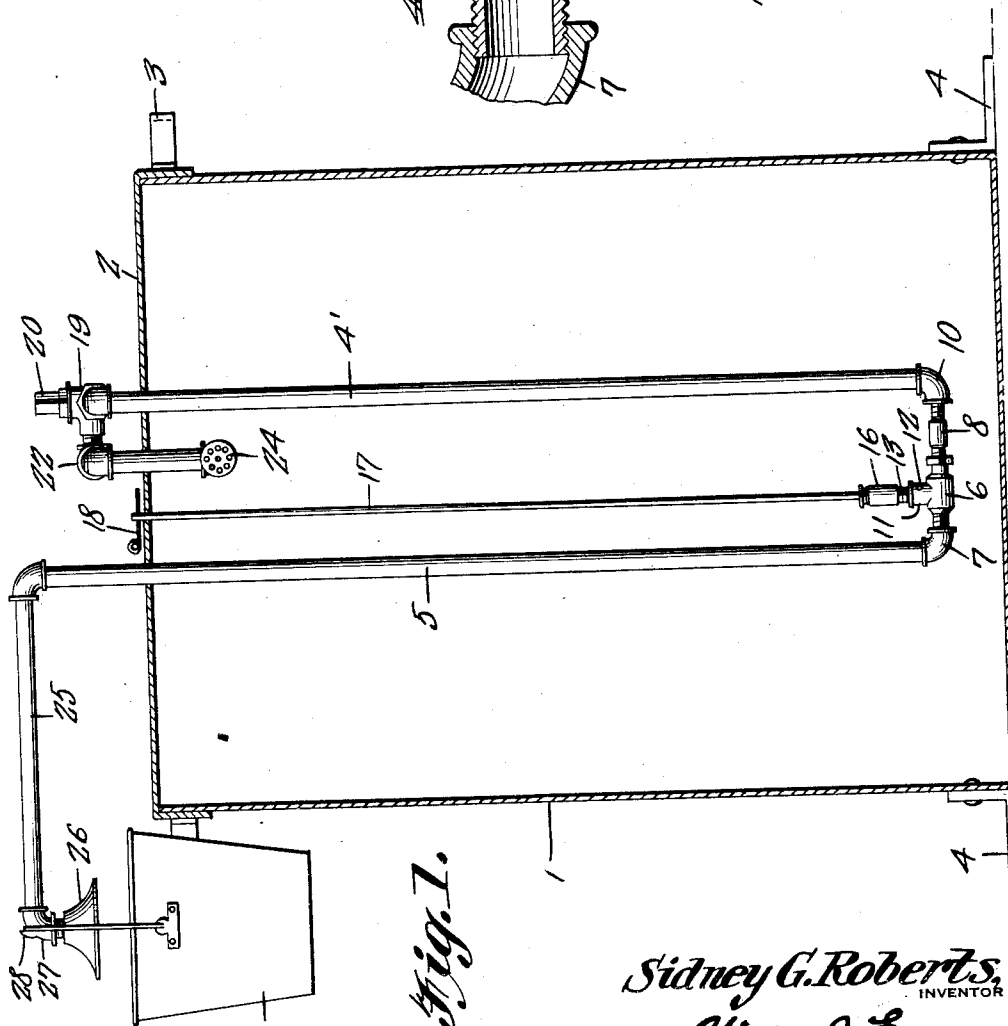
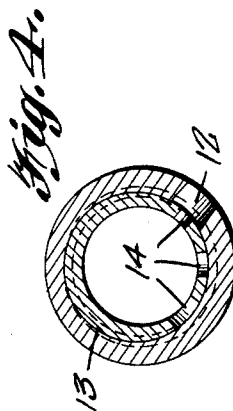
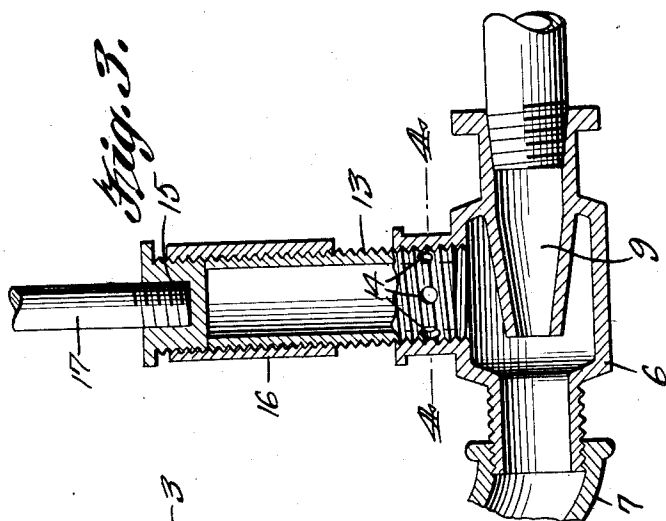
S. G. ROBERTS

1,837,136

SUDS PRODUCING DEVICE

Filed July 15, 1929

2 Sheets-Sheet 1



WITNESS:

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2 Sheets-Sheet 2

Fig. 5.

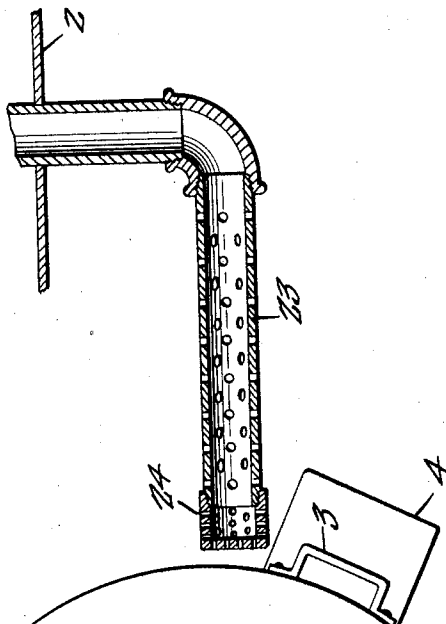
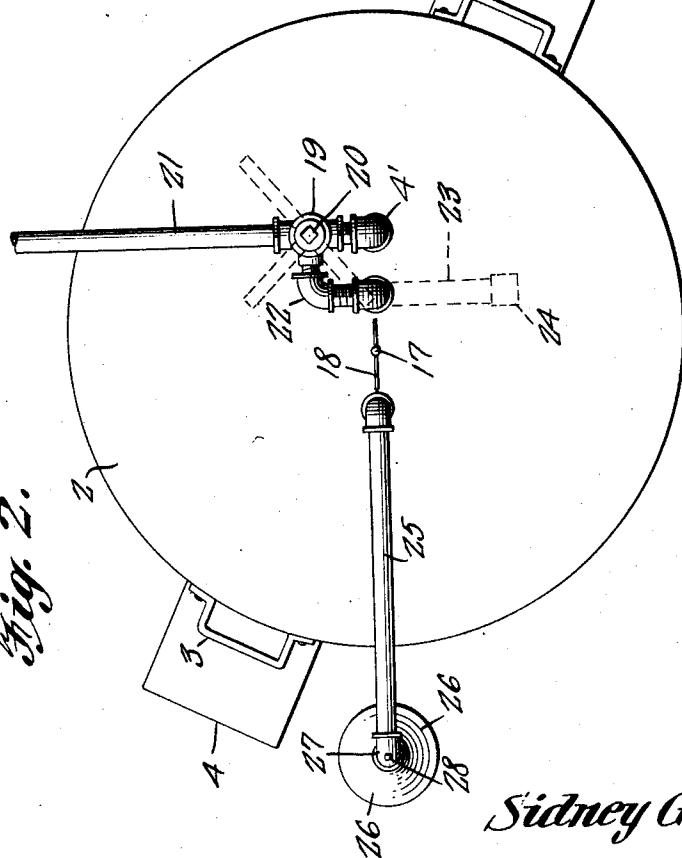


Fig. 2.



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UNITED STATES PATENT OFFICE

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SUDS PRODUCING DEVICE

Application filed July 15, 1929. Serial No. 378,511.

This invention relates to a suds producing device, the general object of the invention being to provide a container for soap, with means for introducing water into the container whenever desired and to provide an injector device which is adapted to be connected to the water supply and to an outlet member whereby the device will act to draw some of the soapy water from the container and force it through the discharge in the form of suds so that the suds can be used for washing automobiles and other devices and objects.

A further object of the invention is to provide means for regulating the amount of soapy water drawn into the device, thereby controlling the proportions of the soap and water contained in the suds and to provide a single valve for controlling the supply of water into the container and to the injector.

This invention also consists in certain other features of construction and in the combination and arrangement of the several parts, to be hereinafter fully described, illustrated in the accompanying drawings and specifically pointed out in the appended claims.

In describing the invention in detail, reference will be had to the accompanying drawings wherein like characters denote like or corresponding parts throughout the several views, and in which:—

Figure 1 is a sectional view through the device.

Figure 2 is a top plan view.

Figure 3 is a sectional view through the injector and the means for controlling the amount of soapy water thereinto.

Figure 4 is a section on line 4—4 of Figure 3.

Figure 5 is a sectional view through the means for supplying water to the container.

In these drawings, the numeral 1 indicates the container and 2 the cover therefor, the cover being provided with the handles 3 and the container with the foot pieces 4, so that these pieces can be engaged by the feet of a person to hold the container stationary while the cover is being removed therefrom.

A vertically arranged inlet pipe 4' extends through the cover into the container to a

point adjacent the lower end of the container and an outlet pipe 5, also vertically arranged, passes through the cover to a point on a level with the lower end of the pipe 4'. A nozzle casing 6 has its discharge end connected with the lower end of the pipe 5 by the elbow 7 and a short pipe 8 has one end connected with the nozzle 9 of the casing and its other end is connected by an elbow 10 with the lower end of the pipe 4'. The nozzle casing is provided with an upwardly extending tubular part 11 which is formed with a hole 12 which communicates with the container and a threaded pipe 13 is threaded in the part 11 and has a number of holes 14 adjacent its lower end, these holes being of different sizes, with one hole the same size as the hole 12. A plug 15 is fastened to the pipe 13 by a sleeve 16 and a rod 17 is threaded in the plug and extends through the cover 2, with its extended end provided with a handle 18, so that by turning the rod by means of its handle, the pipe 13 can be rotated to bring any desired hole 14 in register with the hole 12.

The upper end of the pipe 4 is connected to a valve casing 19 which contains a three-way valve, the stem of which is shown at 20, and this valve casing is connected by a pipe or hose 21, with a source of water supply and it is also connected by a branch 22, which extends through the cover 2 and is connected to a perforated pipe 23 having a perforated cap 24 on its free end.

A horizontal pipe 25 is connected with the upper end of the discharge pipe 5 and has a flaring outlet member 26 detachably connected with its outer end and the elbow 27, which connects the pipe 25 with the member 26, is formed with a holder 28 so that the bail of a bucket 29 can be placed over the holder so as to position the bucket under the member 26. If desired, a screen can be placed around the lower part of the nozzle assembly to prevent particles of soap passing through the holes 12 and 14 when the device is in use.

In using the device, a certain amount of soft soap or other material is placed in the container and the pipe 21 connected with a water supply and then the valve is turned to permit water to pass through the branch 22

into the perforated pipe 23 and thus supply a certain amount of water to the container. The valve is then turned again to place the pipe 4' in communication with the supply pipe so that water will pass down the pipe 4' through the nozzle assembly and up the pipe 5 and will discharge from the pipe 25 and the member 26. As the water flows through the nozzle, it will create a suction in the nozzle casing 6, so that the soapy water in the container will be drawn through the hole 12 and one of the holes 14 into the nozzle casing and this soapy water will mix with the clear water passing through the device and thus produce suds and these suds will be discharged into the pail 29. As before stated, by turning the rod 17, any desired hole 14 can be placed in register with the hole 12 to control the amount of soapy water entering the nozzle casing.

Thus I have provided simple means for producing suds for washing automobiles and the like and as will be seen, by removing the cover, the various pipes and the parts carried thereby will be removed from the container so that these parts can be easily cleaned or adjusted or repaired.

It is thought from the foregoing description that the advantages and novel features of the invention will be readily apparent.

It is to be understood that changes may be made in the construction and in the combination and arrangement of the several parts, provided that such changes fall within the scope of the appended claims.

What I claim is:—

1. A suds producing device comprising a container, a supply pipe extending into the same, a discharge pipe extending into the same, a nozzle casing having one end connected with the discharge pipe, a nozzle extending into the other end of the casing, means for connecting the nozzle with the supply pipe, an extension on the casing at substantially rightangles to the nozzle and having a hole therein, a rotary member having holes of different sizes therein, manually operable means extending outside of the casing for rotating said member to bring any desired hole therein in register with the hole in the extension and cleansing material in the container.

2. A suds producing device comprising a container, a supply pipe extending into the same, a discharge pipe extending into the same, a nozzle casing having one end connected with the discharge pipe, a nozzle extending into the other end of the casing, means for connecting the nozzle with the supply pipe, an extension on the casing having a hole therein, a rotary member having holes of different sizes therein, means extending outside of the casing for rotating said member to bring any desired hole therein in register with the hole in the extension, means

for supplying water to the container and said container having cleansing material therein.

3. A device of the class described comprising a container adapted to contain soap or the like, a removable cover for the container, a supply pipe passing downwardly through the cover, a discharge pipe passing downwardly through the cover, a nozzle casing connected with the lower end of the discharge pipe, a nozzle extending into the casing and connected with the lower end of the supply pipe, an extension on the casing having a hole therein, a rotary member extending into the extension and having a plurality of holes of different sizes therein, a rod connected with the rotary member and extending through the cover whereby the rotary member can be turned to bring any desired hole therein in register with the hole in the casing, a three-way valve connected with the upper end of the supply pipe and adapted to be connected with a supply of water, a branch connected with the valve and extending through the top of the container, a perforated pipe connected with the inner end of said branch whereby by turning the valve, water can be supplied through the perforated pipe into the container or through the inlet pipe to the nozzle and discharge means connected with the upper end of the discharge pipe.

In testimony whereof I affix my signature.
SIDNEY G. ROBERTS.