June 23, 1942. A. C. BALCUNAS 2,287,339

COMPOUND DISPENSER FOR WASHING MACHINES

Filed June 12, 1941 2 Sheets-Sheet 1

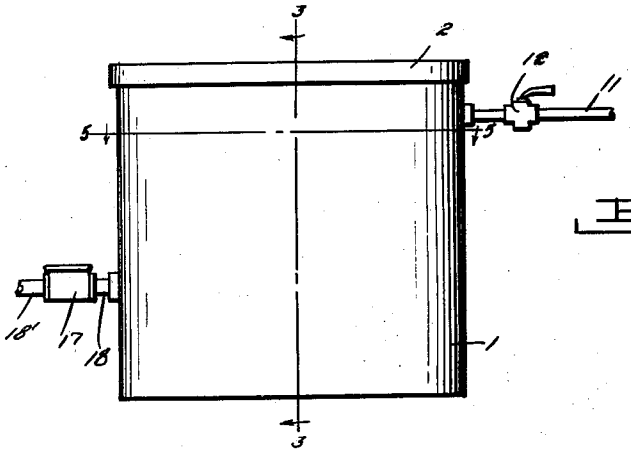


FIG 1

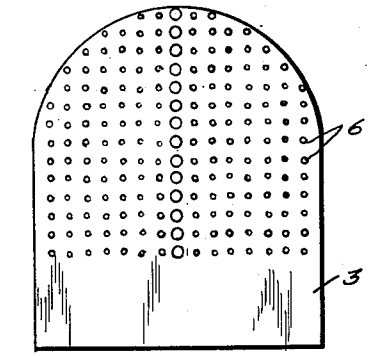


FIG 7

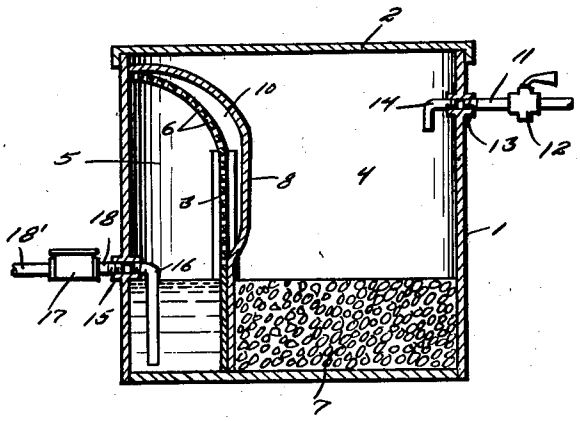


FIG 2

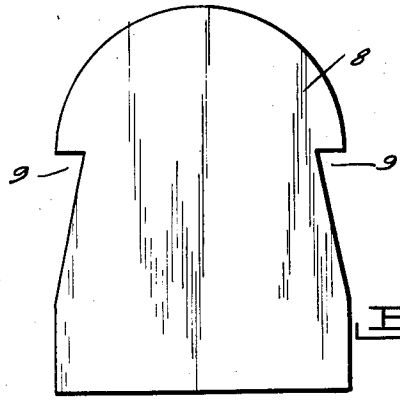


FIG 8

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COMPOUND DISPENSER FOR WASHING MACHINES

Filed June 12, 1941 2 Sheets-Sheet 2

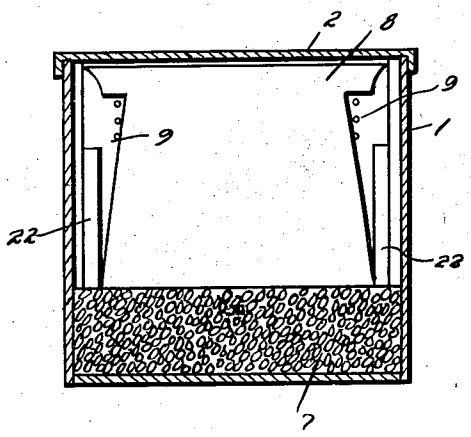


FIG 3

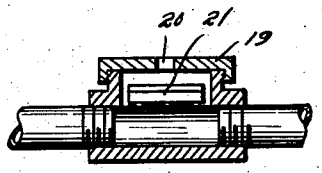


FIG 6

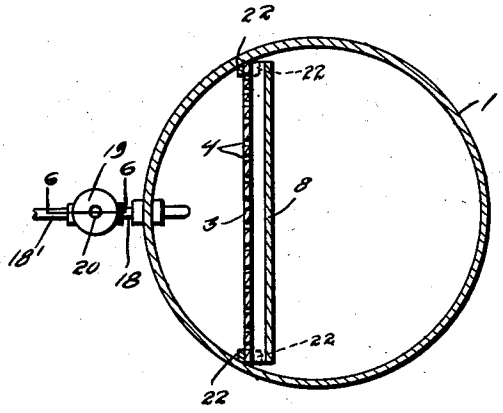


FIG 5

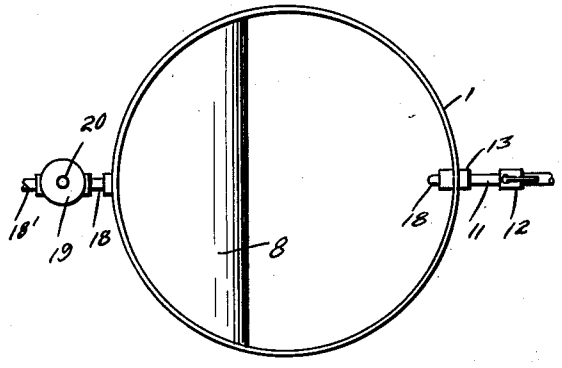


FIG 4

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2,287,339

COMPOUND DISPENSER FOR WASHING MACHINES

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Application June 12, 1941, Serial No. 397,829

4 Claims. (Cl. 299—83)

This invention relates to a compound dispenser for washing machines, the invention being mainly used for dish washing machines, and the general object of the invention is to provide means whereby the dispenser will form a solution of the washing compound in a chamber thereof when water is introduced into the dispenser with means whereby the solution is taken from the bottom of the dispenser by discharge means so that the solution entering the washing machine is at the maximum strength.

Another object of the invention is to provide means whereby large particles of the compound are prevented from reaching the solution chamber.

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 an elevational view of the device.

Figure 2 is a vertical sectional view thereof.

Figure 3 is a section on the line 3—3 of Figure 1.

Figure 4 is a top plan view with the cover removed.

Figure 5 is a section on the line 5—5 of Figure 1.

Figure 6 is a section on the line 6—6 of Figure 5.

Figure 7 is a view of the perforated member.

Figure 8 is a view of the shield.

In these views the numeral 1 indicates a cylindrical container the top of which is open but this top is adapted to close by a cap or cover 2. A partition 3 divides the container into a large chamber 4 and a small chamber 5, the upper portion of the partition curving upwardly and toward one side of the container to form a top for the chamber 5. The major portion of this member 3 is perforated as shown at 6 though the lower part is not perforated as more clearly shown in Figure 7, the perforations terminating short of the cleaning compound or powder 7 located in the lower part of the chamber 4. A guard forming plate 8 is of substantially the same shape as the member 3 but it is formed with the notches 9 in its side edges and the lower part of this plate 8 is suitably connected with the imperforate part of the plate 3 and the rest of the plate is spaced from the perforated part of the member 3 to form a space 10 between itself and the perforated part of the member 3 through the curved upper end of the plate contacts the curved upper end of the member 3, these curved parts contacting side wall portions of the container 1. The notches 9 are so formed that water introduced into the chamber 4 will pass through the notches and thus flow into the space 10 and then the water will pass through the perforations in the member 3 and thus enter the chamber 5. This arrangement prevents any of the compound 7 from entering the chamber 5. A pipe 11 containing a cock 12 is threaded into a boss 13 in the upper portion of the container and an elbow 14 has one end threaded in the inner portion of the boss with the outlet part of the elbow extending downwardly into the chamber 4. This pipe 11 is to be connected with a source of supply. A boss 15 is formed on the lower portion of the container 1 at that side containing the chamber 5 and an L-shaped pipe 16 has the end of its short limb threaded in the boss and its long limb extending downwardly to a point adjacent the bottom of the chamber 5. A coupling 17 is connected to a short pipe 18 which is threaded into the outer part of the boss 15 and a discharge pipe 18 is threaded in the outer end of the coupling. A cap 19 fits over the upper end of the coupling and contains a hole 20 for admitting air into the pipe 18 through means of the coupling so that no siphoning action will occur in the discharge pipe so as to prevent the continuous flow of water saturated with the contents from the chamber 5 after the valve 12 has been closed. A float valve 21 is located in the coupling for closing the hole 20 so as to prevent any escape of solution from the discharge pipes in the operation of the device.

The members 3 and 8 are slidably supported in the container through means of the guides 22, see Figure 5, so that they can be readily removed for cleaning and other purposes.

This device is of the overhead type and is adapted to be set on top of the mechanical washer so that the water from the pipe 18 will enter the washer when the cock 12 is open. The cleaning compound is placed in the lower part of the chamber 4 as shown in Figure 2 and when the device is in use the cock 12 is open and by opening this cock more or less the flow of water into the chamber 4 can be regulated. The water will mix with the compound and the solution will pass by the plate 8 through the notches 9 and then the solution will pass through the perforations 6 in

the member 3 and enter the chamber 5. As soon as the level of the solution in the chamber 5 reaches a point where the solution passes through the pipe 13' the flow of the solution to the washing machine will start and as will be seen the solution is taken from the bottom of the chamber 5 where the solution is of the maximum strength. After enough of the solution has entered the washing machine the cock 12 is closed and then further flow of the solution from the device is stopped, the opening 20 preventing any siphoning action through the discharge means.

Thus it will be seen that the device operates automatically for as soon as the cock 12 is closed the flow of the solution to the washing machine automatically stops, thus saving compound and the device should be of sufficient height to obtain sufficient water pressure to force the saturated solution through the outlet means.

A guard or shield plate 8 prevents the accidental admission of powder or foreign substances from entering the outlet chamber on the top thereof and the top part of the shield covers the chamber and this shield or guard also prevents the clogging of the perforations in the partition 3 by the powder.

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.

Having described the invention, what is claimed as new is:

1. A compound dispenser for washing machines and the like comprising a container, a partition dividing the container into two chambers, said partition being formed of spaced walls forming a chamber therebetween in communication with the first-named chambers, one chamber containing a cleansing compound, means for introducing a liquid into the chamber containing the compound to form a saturated solution which passes through the partition into the second chamber, and a discharge pipe entering the second chamber.

2. A compound dispenser for washing machines and the like comprising a casing, a cover for the upper end of the casing, a partition in the container dividing the same into two chambers, the major portion of the partition being perforated with the lower portion thereof imperforated, a guard member covering the perforated part of the partition and spaced therefrom and having openings in its sides for the passage of liquid from one chamber through the perforations into the other chamber, said one chamber having a cleansing compound therein, a valve controlled pipe for introducing liquid into the chamber containing the compound, a discharge pipe extending into the other chamber and having a part extending downwardly to a point close to the bottom of the container, means in the discharge pipe for preventing a siphon occurring therein, the compound being located below the perforated part of the partition.

3. A compound dispenser for washing machines and the like comprising a casing, a cover for the upper end of the casing, a partition in the container dividing the same into two chambers, the major portion of the partition being perforated with the lower portion thereof imperforated, a guard member covering the perforated part of the partition and spaced therefrom and having openings in its sides for the passage of liquid from one chamber having a cleansing compound therein, a valve controlled pipe for introducing liquid into the chamber containing the compound, a discharge pipe extending into the other chamber and having a part extending downwardly to a point close to the bottom of the container, means in the discharge pipe for preventing a siphon occurring therein, the compound being located below the perforated part of the partition, said partition and the guard member having their upper ends curving upwardly and toward one side of the container to form a top for the chamber receiving the solution through the perforations of the partition.

4. A compound dispenser for washing machines and the like comprising a casing, a cover for the upper end of the casing, a partition in the container dividing the same into two chambers, the major portion of the partition being perforated with the lower portion thereof imperforated, a guard member covering the perforated part of the partition and spaced therefrom and having openings in its sides for the passage of liquid from one chamber through the perforations into the other chamber, said one chamber having a cleansing compound therein, a valve controlled pipe for introducing liquid into the chamber containing the compound, a discharge pipe extending into the other chamber and having a part extending downwardly to a point close to the bottom of the container, means in the discharge pipe for preventing a siphon occurring therein, the compound being located below the perforated part of the partition, guides in the container for receiving edge portions of the partition whereby the partition and the guard member are removably supported in the container.

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