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L. S. ROSENBERGER

SOAP DISPENSER

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Fig. 1.

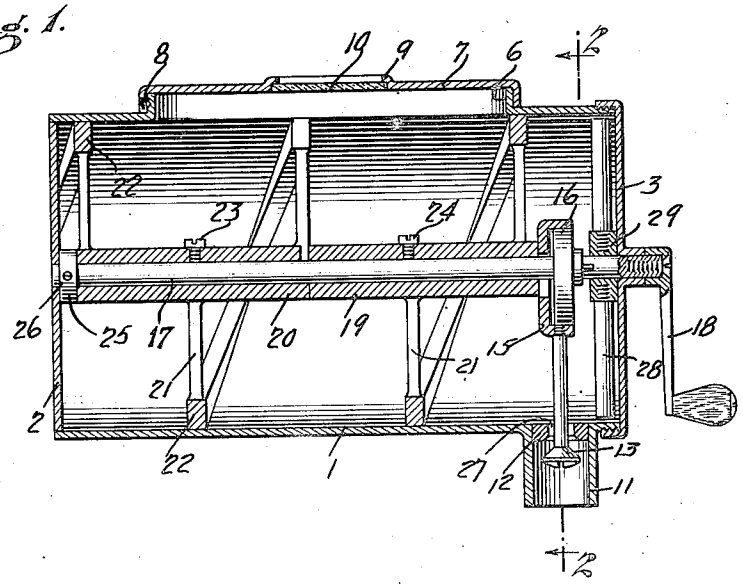
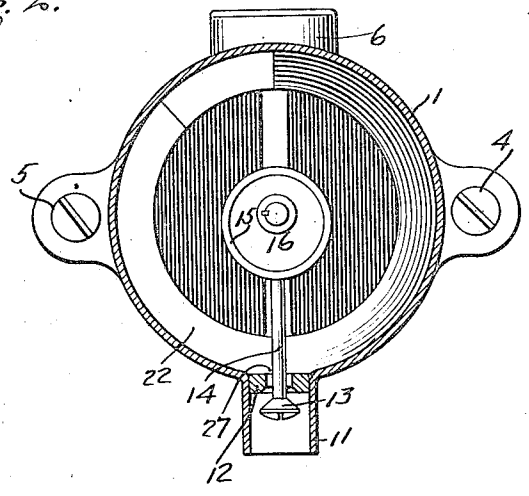


Fig. 2.



WITNESSES

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UNITED STATES PATENT OFFICE.

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SOAP DISPENSER.

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To all whom it may concern:

Be it known that I, LYMAN S. ROSENBERGER, a citizen of the United States, and a resident of Philadelphia, Fox Chase, in the county of Philadelphia and State of Pennsylvania, have invented a new and Improved Soap Dispenser, of which the following is a full, clear, and exact description.

This invention relates to soap dispensers and has for an object to provide an improved construction which may be readily mounted in a horizontal plane and in such a manner as to discharge the soap at a desired point.

Another object in view is to provide a soap dispenser in which powdered soap is discharged intermittently but in a substantially positive manner.

A still further object in view is to provide a soap dispensing device in which the soap is propelled and forced toward the discharge opening in a positive manner and thereby insure always a sufficient discharge to answer the requirements of the operator.

In the accompanying drawing—

Figure 1 is a longitudinal vertical section through a dispensing device, disclosing one embodiment of the invention.

Figure 2 is a sectional view through Figure 1 approximately on line 2—2.

Referring to the accompanying drawing by numerals, 1 indicates a tubular casing which is provided with end members 2 and 3, end member 2 being shown as spot welded or otherwise rigidly secured in place while the end member 3 is shown as being threaded in place. If desired, both could be threaded or member 3 fastened rigidly in place and member 2 screwed into the body of the container. Preferably, the end 2 is provided with ears 4 and 5 through which screws or other fastening means may be passed for securing the container to a support so that it may remain in a horizontal position. The upper part of the container is provided with a pressed out inlet opening 6 of suitable length and also an appreciable width whereby soap powder may be readily inserted at any time. A cap 7 is slidingly mounted over the walls of opening 6 and clamped in position by a suitable set screw 8. Cap 7 is provided with a flange structure 9 whereby a glass or other transparent window 10 may be provided. This will allow a ready inspection at any time without removing the cap 7.

Arranged at one end of the container 1 is a discharge chute 11 which is provided with a seat 12 welded or otherwise rigidly secured in place so as to co-act with the valve member 13 carried by the rod 14, which rod is screwed into or in some other desirable manner rigidly connected with the eccentric strap 15. An eccentric 16 is arranged in the strap 15 and is keyed or otherwise rigidly secured to the shaft 17, which shaft has a crank 18 rigidly secured thereto in any desired manner. When the crank 18 is rotating, shaft 17 will be rotated and, consequently, the valve 13 will be opened and closed and as this action takes place the movement of the rod 14 will stir up the soap powder and permit a ready flowing thereof but in an intermittent manner by reason of the opening and closing of valve 13. Mounted on the shaft 17 are sleeves 19 and 20 which preferably have integral spokes 21, said spokes being also integral with spiral conveying members 22. The members 22 form a continuous spiral but are made in two parts and rigidly connected with the shaft 17 by suitable means, as for instance, set screws 23 and 24. It is, of course, evident that if preferred, the tubular members or sleeves 19 and 20 could be made integral and the conveying spirals 22 also integral though for the purpose of manufacture, it has been found desirable to make them in two parts and mount them on shaft 17 as shown in Figure 1. A washer or stop 25 is connected with shaft 17 by a pin or other suitable means while the end of said shaft is preferably journaled in end 2. As the crank 18 is rotated, not only will the valve 13 be opened and closed but the conveying spirals 22 will be moved and will feed or force the powdered soap toward the discharge opening 27 in seat 12.

To positively insure against packing of the soap, stirring members 28 are connected to a suitable sleeve 29 which sleeve is rigidly secured in any desired manner to the shaft 17. In fact, one of these stirring members may act as a set screw for holding the sleeve 29 in place. After the container 1 has been filled or partially filled with soap and it is desired to use the same, the crank 18 is manually rotated in a clock-wise direction. This will cause the conveying spirals 22 to feed

the soap toward the opening 27 and at the same time will operate rod 14 and valve 13. When the desired amount of soap has been secured, crank 18 is released. For a second supply of soap, the operation is repeated. By reason of the use of the spiral conveyers 22, soap is continually fed to the discharge opening 27 during the operation of the device, even if there is only a small quantity left in the container. In this way the soap is dispensed until the container is completely empty. Preferably, the set screw 8 or some similar structure is used to lock the lid or cap 7 in place but this member may be readily removed by a screw driver or other suitable instrument but cannot be removed by a hand so that ordinarily the interior of the container cannot be reached and, consequently, none of the parts can be injured or caused to operate in an improper manner. If desired, a locking set screw similar to set screw 8 might be used to hold the cap 7 against removal.

What I claim is:—

1. A soap dispensing device comprising a tubular container having a discharge opening, a rotatable shaft extending longitudinally through said opening, manually actuated means for rotating said shaft, a spiral conveyer secured to said shaft and positioned to force soap toward said discharge opening, and a reciprocating member operated by said shaft extending through said opening for preventing clogging, said reciprocating member being operated simultaneously with the rotation of said shaft and the movement of said spiral conveyer.

2. A soap dispenser comprising a tubular body having a discharge chute near one end, said discharge chute having a seat arranged therein provided with a discharge opening, a valve member for closing said seat, a rod connected with said valve member and extending through said opening, a manually actuated rotatable shaft extending through said tubular body, means actuated by said shaft for reciprocating said rod and opening and closing said valve, and a spiral conveyer connected with said rod frictionally engaging said container for propelling soap toward said discharge opening as the shaft rotates.

3. A soap dispensing device of the character described comprising a tubular body having a discharge opening, a rotatable shaft extending longitudinally of said body, means for rotating said shaft, a valve member controlling the flow of soap through said opening, an eccentric rigidly connected with said shaft, an eccentric strap mounted on said eccentric connected with said valve member whereby the valve member is opened and closed as the shaft is rotated, and a conveyer operated by said shaft for forcing soap toward said discharge opening.

4. A soap dispensing device comprising a container having a discharge opening, a valve member for closing said opening, a rod secured to said valve member and extending through the opening, an eccentric strap secured to said rod, an eccentric mounted in said strap, a rotatable shaft carried by said body rigidly secured to said eccentric, and means for rotating said shaft whereby said rod is reciprocated in said opening and the valve is opened and closed.

LYMAN S. ROSENBERGER