March 15, 1932. G. W. ANDERSON 1,849,901

DISPENSER

Filed Feb. 24, 1931

Fig. 1.

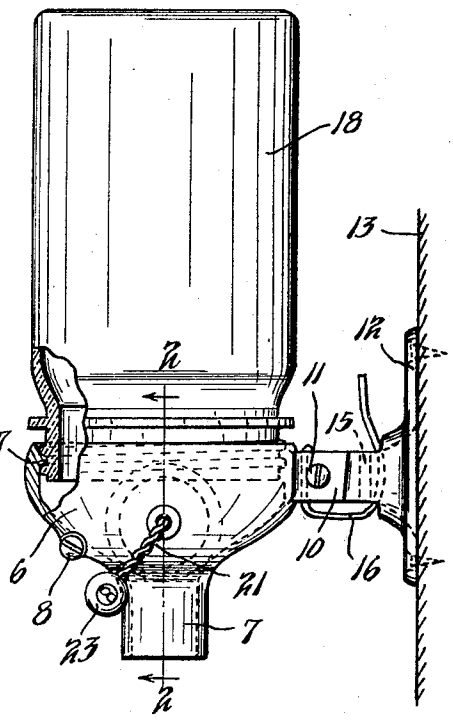


Fig. 3.

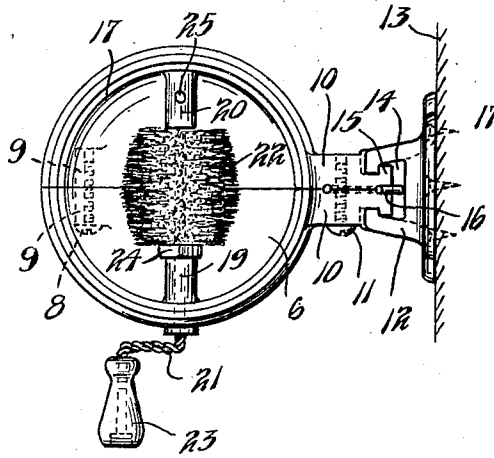


Fig. 2.

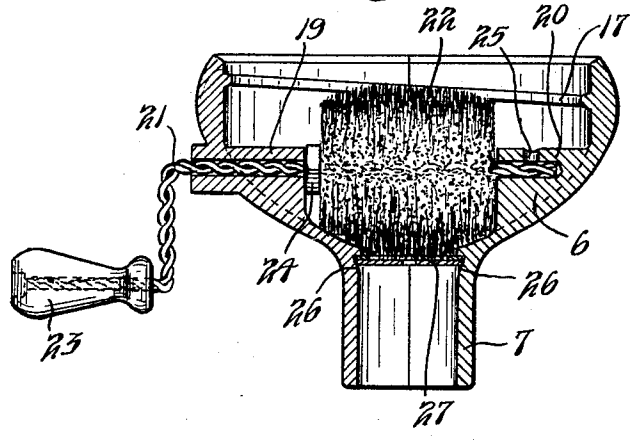


Fig. 4.

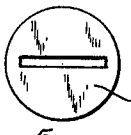
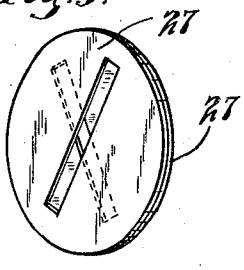


Fig. 5.



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DISPENSER

Application filed February 24, 1931. Serial No. 517,817.

This invention relates to dispensers for granular material, such as granular soap, sugar, salt and the like.

It is the main object of the present invention to provide a dispenser for granular material, which is of cheap and simple construction and can be used for dispensing a predetermined amount of the granular material without permitting the granular material to clog the outlet of the dispenser.

It is a further object to provide a dispenser including a funnel-like shell and a rotary brush in the shell above the outlet thereof, which brush serves to divide the granular material to prevent the same from freely running through the outlet until the brush is rotated and at the same time serves to agitate the granular material, maintain the outlet in non-clogged condition and distribute a predetermined amount of the granular material to the outlet as the brush is rotated.

Another object is to provide a novel valve for use in a dispenser which can be quickly adjusted to vary the quantity of granular material that may be discharged at a given time.

These and other objects and advantages of the present invention will more fully appear from the following description made in connection with the accompanying drawings, wherein like reference characters refer to the same or similar parts throughout the various views and, in which,

Fig. 1 is a view taken in side elevation of the dispenser as applied in operative relation to a vertical panel, certain of the parts being broken away to more clearly show the construction thereof;

Fig. 2 is a vertical section taken on the line 2—2 of Fig. 1, as indicated by the arrows, and illustrating the shell of the dispenser;

Fig. 3 is a plan view of the shell and bracket;

Fig. 4 is a plan view of one of the disks forming the valve; and

Fig. 5 is a perspective view illustrating the two disks forming the valve.

In accordance with the present invention, there is provided a funnel-shaped shell 6 having an open upper end and a downwardly projecting cylindrical spout 7. The shell 6 is preferably of split construction, the two sections of the shell being secured together as by a screw 8 running through an opening in a lug 9 formed on one of the sections and extending into a screw threaded opening in a lug 9 on the other of the sections. Blocks 10 project outwardly from the two sections adjacent their upper ends at sides opposite the lugs 9 and these blocks are secured together by a screw 11. A bracket 12 adapted to be secured as to a vertical panel 13 has a T-shaped opening 14 therein and the two blocks 10, when assembled together, form a T-shaped portion 15 adapted to be held within the T-shaped opening 14 of the bracket 12. The arms of the bracket 12 forming the side walls of the T-shaped opening 14 may be of wedge-shape to fit within corresponding wedge-shaped grooves at the outer sides of the T-shaped portion 15. A spring wire 16 shaped as best illustrated in Fig. 1, has a portion fitting within a vertical opening formed by the two blocks 10 through the provision of mating grooves in the opposing surfaces thereof, and this spring wire is adapted to bear against the bracket 12 and fit within the T-opening 14 thereof to prevent unwarranted removal of the shell 6 from the bracket 12.

The upper inner surface of the shell 6 is equipped with a screw thread 17 to permit a container 18, such as a mason jar having an exterior screw thread at its open end, to be releasably applied to the shell 6. The shell has a pair of horizontal bearing portions 19 and 20 respectively projecting upwardly from its lower surface above the spout 7 and these bearing portions are bored to receive the shank 21 of a brush having bristles 22. The shank 21 is preferably formed from a pair of twisted wires and is bent at its outer end to form a crank portion to which a handle 23 is applied. The bristles 22 are held between the twisted wires forming the shank 21 intermediate the two bearing portions 19 and 20 and extend radially from the shank, the bristles forming a substantially cylindrical mass rounded slightly adjacent its ends. To maintain the brush in position in the bearing portions 19 and 20 and to prevent the withdrawal of the brush, a nut 24 is prefer-

ably soldered to the shank 21 inwardly from but adjacent the inner end of the bearing portion 19. A small vertical opening 25 extends through the top surface of the bearing portion 20 into the bore thereof. The spout 7 adjacent its upper end has a groove 26 cut in its interior surface and within this groove there are seated a pair of slotted disks 27 which form the adjustable valve of the dispenser. The slots of the disk 27 extend generally diametrically of the disks almost across the same and by rotating one of the disks 27, as the lower disk, relative to the other disk 27, as the upper disk, the size of the alined portions of the slots of the disks may be varied. The bristles 22 of the brush are of such length that they will closely fit the lower portion of the shell 6 and strike the upper disk 27 to fit within the slot of the upper disk and the alined portion of the slot of the lower disk.

The granular material to be dispensed will be held within the container 18 and shell 6. Under normal conditions, the bristles 22 of the brush will prevent the granular material from discharging through the alined portions of the slots of the disks 27. As the brush is turned by rotation of the crank portion of the shank 21, the bristles 22 will carry a certain quantity of the granular material with them from the upper side of the brush downwardly to the two disks 27, whereupon this granular material will flow through the alined portions of the slots of the disks to be discharged through the spout 7. At the same time the brush is rotated, the upper disk 27 together with the alined portion of the slot of the lower disk will be swept by the bristles 22 to maintain the outlet opening of the valve in clean condition and to prevent clogging of the outlet opening by the granular material. The brush also acts to agitate the granular material above the valve to prevent the same from caking in the shell 6. As the twisted wires forming the shank 21 of the brush act somewhat like a screw conveyor to carry a small quantity of the granular material into the bore of the bearing portion 20 when the brush is rotated in a normal clockwise direction, this granular material would soon build up in the bore of the bearing portion 20 but for the opening 25. The opening 25 permits the release of any granular material carried into the bore of the bearing portion 20. As the spout 7 projects for some distance below the valve, the spout acts as a guard to prevent access of water or moisture to the valve from below the same. By rotation of one disk 27 relative to the other, the size of the outlet opening of the valve may be varied to permit dispensation of but a predetermined amount of the granular material when the brush is rotated.

The dispenser of the present invention has been amply and successfully demonstrated in actual practice. The parts of the device are few, the assembly of the device is simple and the device requires practically no servicing.

It will, of course, be understood that various changes may be made in the form, details, arrangement and proportions of the various parts without departure from the scope of the present invention, which, generally stated, consists in the matter shown and described and set forth in the appended claims.

What is claimed is:—

1. A dispenser for granular material comprising, a chamber within which the granular material is adapted to be stored and having an outlet opening at its lower end, a rotary brush mounted within said chamber over said opening, said brush having bristles normally preventing the flow of granular material from said chamber through said opening, and adapted to feed the granular material to said opening to be discharged from said chamber as said brush is rotated.

2. A dispenser for granular material comprising, a funnel-shaped shell having an outlet opening, a twisted wire brush having bristles projecting radially therefrom mounted in said shell over said opening for rotation to sweep the shell adjacent said opening and means for rotating said brush.

3. A dispenser for granular material having in combination, a funnel-shaped shell having a discharge spout, a pair of slotted disks mounted one above the other in said spout, one of said disks being capable of being rotated relative to the other disk to vary the size of the alined portions of said slots and means for carrying a quantity of the granular material to be dispensed to a point above said disks, said means comprising a rotary brush mounted in said shell above said spout.

4. A dispenser for granular material having in combination, a shell having a discharge spout, a valve located in said spout, a brush having a twisted wire shank journaled for rotation above said spout and having bristles extending radially from said shank to sweep said valve, and means for rotating said brush.

5. The structure defined in claim 4, said shell having bored bearing portions within which said twisted wire shank is journaled and one of said bearing portions having an opening leading into the bore thereof to permit egress of the granular material carried into the bore thereof through the screw conveyor action of said shank.

In testimony whereof I affix my signature.

GEORGE W. ANDERSON.