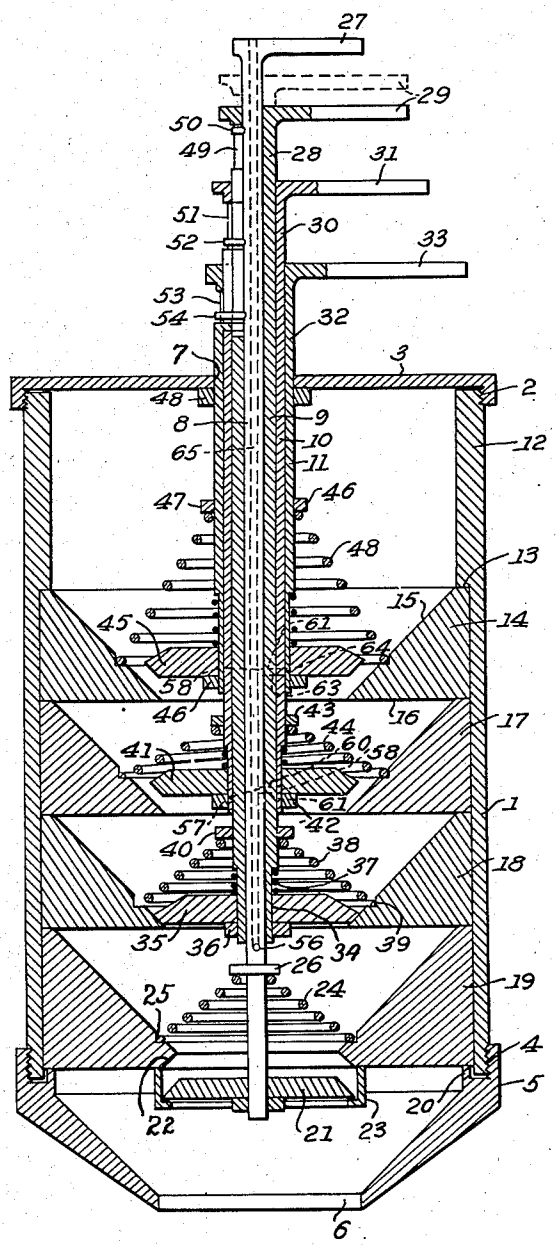
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MULTIPLE DISPENSER

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MULTIPLE DISPENSER

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4 Claims. (Cl. 222—436)

This invention relates to dispensers and more especially to a dispenser adapted to dispense measured quantities of the dispensed material in selected variable amounts.

An object of the invention is to provide a simple, practical and efficient dispenser of the character described.

Another object is to provide an improved dispenser capable of dispensing measured quantities of material in selected variable amounts.

A further object is to provide an improved and simplified construction for a dispenser of the character described.

Other objects and advantages will appear and be brought out more fully in the following specification, reference being had to the accompanying drawing wherein the figure is a sectional elevation of a dispenser embodying my invention.

Referring more particularly to the drawing I show a dispenser having a central cylindrical wall portion 1, threaded at 2 for engagement with cover 3 and threaded at 4 with hopper 5 which is tapered and has a circular dispensing aperture 6. Cover 3 has a central opening 7 for a plurality of valve actuating members which consist of a rod 8 and sleeves 9, 10 and 11.

A spacing sleeve 12 is positioned in the chamber formed by cylindrical wall portion 1, and is provided with an abutment 13 forming a seat for an annular valve seating member 14. Member 14 is provided with a tapering wall portion 15 which meets with a transverse wall portion 16, forming a dispensing aperture and a conical seat for one of the valves to be presently identified. A similar valve seating member 17 is positioned within cylinder 1 and supports seating member 14. A similar valve seating member 18 is similarly positioned and supports seating member 17, and a lower valve seating member 19 is similarly positioned and supports seating member 18. Hopper 5 has an annular flange 20 which engages and supports valve seating member 19 and supports the valve seating members 14, 17, 18 and 19. A valve 21 is secured to rod 8, a seat 22 being formed in valve seating member 19, there being a plurality of limiting elements 23 secured to member 19 to limit the opening movement of valve 21. A spring 24 is suitably positioned between a recess 25 in member 19 and a suitable abutment 26 secured to rod 8 to normally retain rod 8 and valve 21 in raised position with valve 21 closed against seat 22. Rod 8 is provided with a suitable extension and handle 27 for actuating the rod by plunger action. A plunger sleeve 28 is slidably mounted on rod 8 and has an actuating handle 29. A sleeve 30 is slidably mounted on sleeve 28 and has an actuating handle 31. A sleeve 32 is similarly mounted on sleeve 30 and has an actuating handle 33. Rod 8 and sleeves 28, 30 and 32 extend through aperture 7 in top 3. Sleeve 28 is provided with a reduced end portion 34 on which a valve 35 is slidably mounted between a lifting collar 36 secured to the sleeve and a spring 37 which engages a shoulder formed by the enlarged part of sleeve 28. A spring 38 is secured between a recess 39 in valve seating member 18 and a collar 40 secured on sleeve 28 whereby to raise the sleeve and valve 35 which is normally out of contact with member 18. A valve 41 is similarly positioned on sleeve 30 which has collars 42 and 43 and a spring 44. A valve 45 is similarly positioned on sleeve 32 which has collars 46 and 47 and a spring 48.

Sleeve 28 is provided with a longitudinal cut-out 49 into which extends a pin 50 secured to rod 8, whereby when handle 29 is pressed down to close valve 35 as shown in the figure, pin 50 will be engaged by the upper end of cut-out 49 and rod 8 will be pushed down, opening valve 21 and dispensing the contents of the dispenser below valve 35 and discharging the same into hopper 5 and out through aperture 6.

Sleeve 30 is provided with a similar cut-out 51 into which extends a pin 52 also secured to rod 8 whereby valve 41 is closed and valve 21 opened when handle 31 is pushed down. Similarly sleeve 32 is provided with a cut-out 53 into which extends a pin 54 also secured to rod 8 whereby to close valve 45 and open valve 21 when handle 33 is pushed down. It will be understood that cut-out 51 extends the length of cut-out 53, and cut-out 49 extends the length of cut-outs 51 and 53 so that pins 52 and 54 may extend through cut-outs 49 and 51, as should be obvious.

Rod 8 is provided with a tubular bore 65 which is open at the top and terminates at the bottom by a lateral opening 56 adjacent the lower end of plunger sleeve 28. Rod 8 is further provided with lateral bores 57 and 58, and sleeve 9 is provided with bores 60 and 61 adapted to be aligned with bores 57 and 58 respectively, as hereinafter explained. Sleeve 10 is similarly provided with bores 62 and 63, and sleeve 11 provided with a bore 64. By this construction when rod 8 or either of sleeves 9, 10 or 11 has been pushed down, the lateral bores 56 to 64 respectively will be pushed below the end of the adjacent outer sleeves respectively, and permit the entrance of air from the top of rod 8 through the bore 55 and

provide a bleeder for the chamber below whichever valve may be closed.

The operation of the invention should be clear from the foregoing description. By pushing down the handles **27**, **29**, **31** or **33**, valves **35**, **41** or **45** will be closed, which action will cause the engagement of pins **50**, **52** or **54** on rod **8**, causing the opening of valve **21** which will result in the discharge of the contents of the lower two or three chambers or all four. The actuation of valve handle **27** will open valve **21** without closing any of the other valves and the entire contents of the container will be discharged. The operation of valve handle **29** will close valve **35** and open valve **21** as shown and permit discharge of the contents of the lower chamber only.

Having described my invention what I claim is:

1. A container as described having a valved dispensing aperture and a plurality of chambers, there being valved apertures between said chambers actuating means for each chamber valve, said actuating means adapted to be selectively actuated to dispense the contents of a plurality of said chambers, said means each including means adapted to actuate the dispensing valve when its respective chamber valve is actuated.

2. A container as described having a valved dispensing aperture and a plurality of chambers, there being valved apertures between said chambers, and means adapted to selectively dispense the contents of said chambers, said means including a plunger rod and a valve for said dispensing aperture, a plurality of sleeves on said plunger rod, said sleeves each having a chamber valve secured thereto, and a plurality of pins on said rod, each adapted for engagement with one of said sleeves.

3. A container as described having a valved dispensing aperture and a plurality of chambers, there being valved apertures between said chambers, and means adapted to selectively dispense the contents of said chambers, said means including a plunger rod and a valve for said dispensing aperture, a plurality of sleeves slidably secured on said plunger rod, said sleeves each having a chamber valve resiliently secured thereto, and a plurality of pins on said rod, each adapted for engagement with one of said sleeves, whereby actuation of one of said sleeves will actuate said plunger rod.

4. A container as described having a valved dispensing aperture normally closed and a plurality of progressively arranged chambers, there being valved apertures between said chambers normally open, actuating means for each chamber valve adapted when actuated to open the dispensing valve and dispense the contents of all of said chambers between said actuated valve and said dispensing valve.

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