Dec. 10, 1935. F. G. GEIS 2,024,037

ABRASIVE CLEANER DISPENSER

Filed Jan. 11, 1935

Fig. 1.

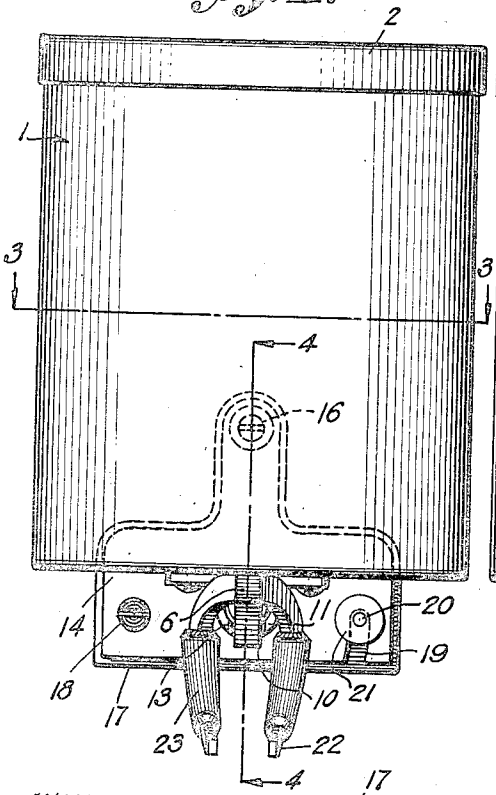


Fig. 2.

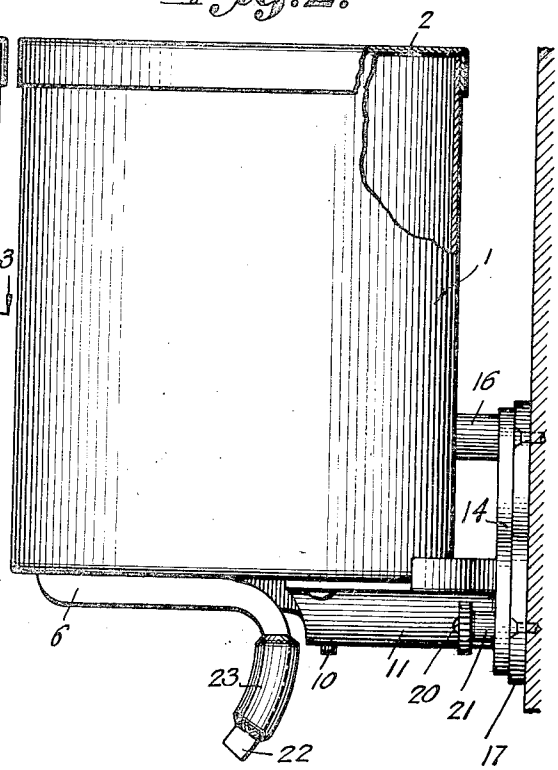


Fig. 3.

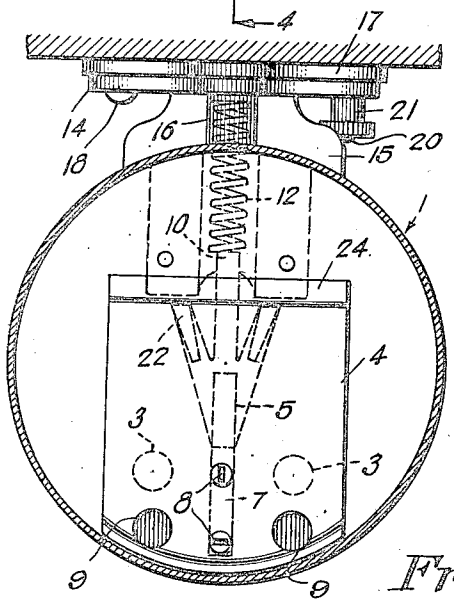
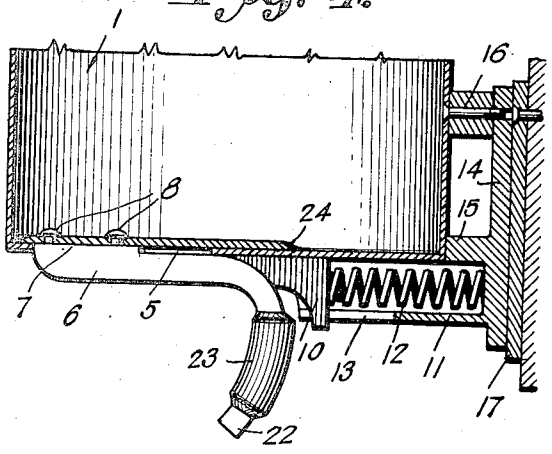


Fig. 4.



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ABRASIVE CLEANER DISPENSER

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Application January 11, 1935, Serial No. 1,411

3 Claims. (Cl. 221—62)

This invention relates to dispensers especially adapted for powdered substances, and has for the primary object the provision of a device of this character which may be easily adjusted to facilitate its filling with the substance to be dispensed and is so constructed that the loss of the substance is prevented and is easily operated to permit the substance to discharge therefrom in restricted amounts.

With these and other objects in view, this invention consists in certain novel features of construction, combination and arrangement of parts to be hereinafter more fully described and claimed.

For a complete understanding of my invention, reference is to be had to the following description and accompanying drawing, in which

Figure 1 is a front elevation illustrating a dispenser constructed in accordance with my invention.

Figure 2 is a side elevation, partly in section, illustrating the same.

Figure 3 is a sectional view taken on the line 3—3 of Figure 1.

Figure 4 is a sectional view taken on the line 4—4 of Figure 1.

Referring in detail to the drawing, the numeral 1 indicates a hopper closed by a removable cover 2 and is provided in the bottom wall thereof with discharge ports 3 opened and closed by a slide 4 operating against the bottom wall and arranged upon the interior of the hopper. The bottom wall of the hopper is provided with an elongated slot 5 which also may act as a discharge port when the slide is in a certain position. A bar 6 is provided with an offset or shoulder 7 operating in the slot and is secured to the slide, as shown at 8. The shoulder 7 contacts with opposite walls of the slot and the bar having slidable contact with the outer face of the bottom prevents the slide from becoming disarranged in the hopper. The slide is provided with ports 9 which may be aligned with the ports 3 and also one end of the slide may uncover a portion of the slot so the contents of the hopper may discharge therefrom. The bar 6 is provided with a heel 10 which enters a spring casing or mounting 11 to be engaged by a spring 12 acting to position the slide to close the ports 3 and the slot 5. The heel 10 operates in a slot 13 in the mounting 11 which guides the movement of the bar with respect to the hopper. The spring mounting 11 forms an integral part of a bracket 14 equipped with a rest 15 to engage the hopper adjacent the bottom of the latter. The hopper is further secured to the bracket 14, as shown at 16. The bracket is pivoted to a supporting plate 17, as shown at 18, and said bracket also has a slot 19 opening through one edge thereof to receive a threaded bolt 20 carried by the support 17. A nut 21 is threaded to the bolt and may be turned in engagement with the bracket 14 to secure said bracket against accidental pivotal movement. The support 17 is in the form of a plate which may be secured in any well known manner to a wall or other object, it being apertured to receive screws or like fasteners.

Integral with the bar 6 are arcuately curved depending fingers 22 on which are mounted cushion elements 23. The fingers 22 are employed for sliding the slide against the action of the spring 12 to open the ports 3 as well as a portion of the slot 5 so that the substance of the hopper may discharge therefrom. The particular shape of the fingers permits a receptacle to be engaged therewith with force to move the slide against the action of the spring and permits the substance to fall or gravitate to the receptacle. Opposite ends of the slide are beveled to form cutting edges 24. These cutting edges act to prevent the substance of the hopper from adhering to the bottom as they will act upon said substance during the sliding movement of the slide. Also the cutting edges engaging with the substance act to urge the slide in tight engagement with the bottom of the hopper.

It will be apparent that by reason of the size of the slide 4 presenting a large surface area the said slide is enabled to act as a shaker and prevents the substance in the hopper from packing and not flowing freely in that such substance within the hopper will be worked loose for the free flowing action under the dispensing operation.

Powdered substances are usually purchased in containers and to dispense such substance from the containers to the hopper without spilling, the present invention has provided means whereby the open end of the hopper may be swung downwardly to permit the open container to be positioned therein and then replaced to its original or operative position. The container may then be removed from the hopper or left therein if desired.

Having described the invention, I claim:

1. A dispensing device comprising a hopper having discharge ports and a slot, supporting means for the hopper, a slide having ports engaging an interior face of a wall of the hopper for opening and closing the ports of said hopper

by aligning and unaligning the ports thereof with the ports of the hopper, a bar arranged exteriorly of the hopper and projecting into the slot and secured to the slide, spring means engaging the bar to position the slide to close the ports of the hopper, and a finger piece carried by the bar.

2. A dispensing device comprising a hopper having discharge ports and a slot, supporting means for the hopper, a slide having ports engaging an interior face of a wall of the hopper for opening and closing the ports of said hopper by aligning and unaligning the ports thereof with the ports of the hopper, a bar arranged exteriorly of the hopper and projecting into the slot and secured to the slide, spring means engaging the bar to position the slide to close the ports of the hopper, a mounting carried by the supporting means for housing said spring means and having a slot, a heel on the bar to engage the spring means and operating in the slot of the spring mounting, and finger pieces integral with the bar.

3. A dispensing device comprising a hopper having an open end, a removable cover for said end of the hopper, dispensing means for the hopper, a bracket secured to the hopper, a supporting plate pivoted to said bracket, a bolt carried by the supporting plate, said bracket having a slot opening through one edge thereof to receive the bolt cooperating with the pivot in supporting the hopper in an upright position and permitting the hopper to be swung to dispose the open end thereof downwardly, a nut threaded to the bolt to engage with the bracket for securing the latter against pivotal movement.

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