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S. HOCHSTIM

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DISPENSER

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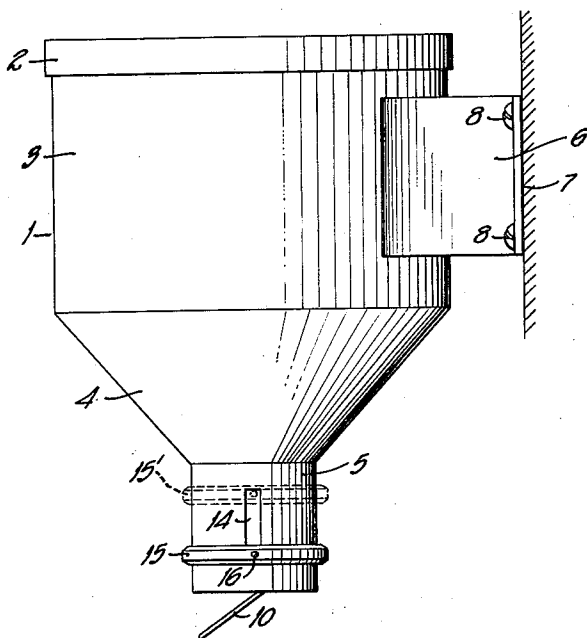


FIG. 1

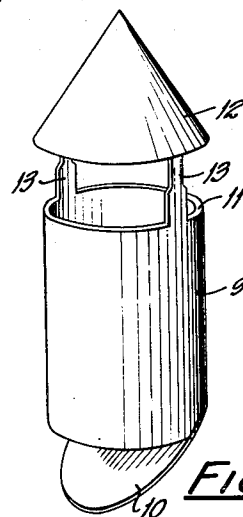


FIG. 2

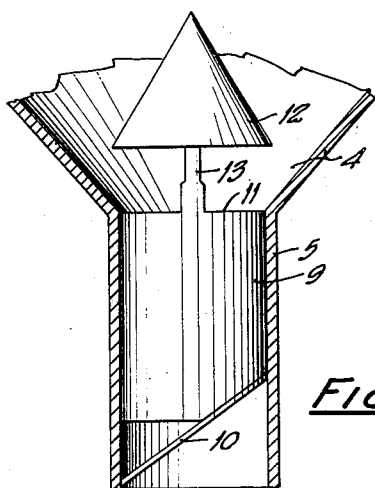


FIG. 4

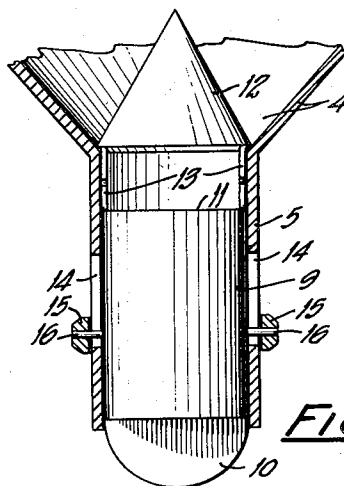


FIG. 3

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# UNITED STATES PATENT OFFICE

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DISPENSER

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4 Claims. (Cl. 221-114)

My invention relates to dispensers and particularly to devices of this character for use in kitchens for the purpose of dispensing measured quantities of coffee.

5 One of the objects of my invention is to provide a device of this character which will be simple in its operation and which may be cheaply constructed. Another object is to provide a novel type of valve in a device of this character  
10 which, when actuated, will not only automatically limit the quantity of coffee delivered but will also agitate the coffee in the main reservoir of the dispenser and prevent it from becoming arched or packed therein. This feature is particularly  
15 valuable where the device is used for substances other than coffee and which are more readily affected by atmospheric moisture.

With these objects in view my invention includes the novel elements and combinations of  
20 elements described below and illustrated in the accompanying drawing in which—

Fig. 1 is a side elevation of my device;

Fig. 2 is a perspective view of the valve;

Fig. 3 is a fragmentary vertical sectional view of  
25 the lower portion of Fig. 1 showing the valve in normal or lowered position; and

Fig. 4 is a view similar to Fig. 3 showing the valve in raised position.

Referring to the drawing, my device comprises  
30 a container 1, preferably of metal, and provided with a cover 2 which may be removed to fill the container 1 and which will tightly seal the container when placed thereon. The upper portion  
35 of the container is preferably cylindrical and the lower portion 4 preferably frusto-conical. The frusto-conical portion communicates at its lower and smaller end with a cylindrical or tubular  
40 portion 5 which forms a container for the valve mechanism. The device is provided with an appropriate bracket 6 adapting it to be secured to a wall 7 by means of screws 8.

The valve element, which is shown in perspective in Fig. 2, preferably comprises a hollow cylindrical portion 9 of a diameter adapting it to  
45 fit slidably within the cylindrical portion 5 of the container. That the portion 9 need not be a complete cylinder or tube will be obvious as the description proceeds because it functions primarily as a connecting means for the upper and  
50 lower valve closure elements. However, by making the portion completely cylindrical or substantially so the closure elements are maintained in perfect alignment. The lower portion of the tube or cylinder 9 is partially truncated and partially  
55 closed by the inclined elliptical plate 10

which may be soldered thereto. The elliptical plate 10 also fits slidably within the tube 5 and forms not only a closure for the bottom thereof when the valve is in raised position, as shown in Fig. 4, but also a spout or chute when the valve  
5 is in lowered position, as shown in Fig. 3. Spaced somewhat above the upper periphery 11 of tube 9 is a closure element 12 which is secured to the portion 9 by means of two vertically extending  
10 legs 13. The element 12 is preferably but not necessarily conical in form and its base is slightly larger than the internal diameter of the tubular portion 5 so that when the valve is in the lower  
15 position the base of the closure element 12 will rest on the interior of the frusto-conical portion 4, as shown in Fig. 3.

The tubular portion 5 is provided with diametrically disposed vertical slots 14, and a ring  
20 15 slidably fitted over the exterior of the tube 5 forms the actuating element for the valve. The ring 15 is secured to the valve element 9 by means of screws, pins or rivets 16 which pass through the ring 15, slots 14 and into the element 9. The  
25 tops of the slots 14 form stops for the upward movement of the pins 16 thereby limiting the upward movement of the valve. The lower movement of the valve is, of course, limited by the contact of the upper closure element 12 with the interior of the frusto-conical portion 4.

In operation, the cover 2 is removed and the  
30 container filled with coffee. While this is being done, the valve, of course, is in its normal, lowered position, as shown in Fig. 3. To actuate the device, the ring 15 is grasped by the operator and quickly pushed upwardly to the position 15' as  
35 shown in Fig. 1. This operation moves the closure element 12 upwardly to the position shown in Fig. 4. At the same time the lower closure element 10 moves upwardly into the tube 5 and closes it at the bottom, as shown in Fig. 4. The coffee  
40 in the container flows downwardly through the annular opening between the closure element 12 and the interior of the frusto-conical portion 4 into the tube 5. The volumetric capacity of the tube 5 is preferably about one heaping tablespoon-  
45 ful. The flow of coffee into the tube 5 occurs very quickly and the ring 15 is then released or lowered by the operator from the position 15' to the position 15. This, of course, simultaneously  
50 lowers the closure element 12 which seals the main container, and the measured amount of coffee trapped in the tube 5 below the element 12 will flow outwardly over the chute or spout 10 and may be received in the coffee pot or other  
55 suitable container.

It will be apparent that when the valve is moved upwardly the conical closure element 12 will be forcibly projected up into the coffee or other substance in the container 1 and agitate the same, thus insuring a free fall of the contents toward the valve.

While I have described my invention in its preferred embodiments, it is to be understood that the words which I have used are words of description rather than of limitation. Hence, changes within the purview of the appended claims may be made without departing from the true scope and spirit of my invention in its broader aspects.

What I claim is:

1. A dispensing device of the character described for dry material of the order of ground coffee comprising a container having a tubular element depending from the bottom thereof and forming a passageway for the discharge of material by gravity from said container, a second tubular element slidably fitted within said first tubular element and connected through a slotted opening in said first mentioned tubular element to a ring about said first element forming a grip for moving said second element within said first element, and closure elements for the top and bottom of said passageway carried by said second tubular element; said passageway being normally closed at the top and open at the bottom, and closed at the bottom when fully open at the top.

2. A dispensing device for dry material of the order of ground coffee comprising a container having an inverted frusto-conical bottom whereby material in said container will naturally gravitate to the lowest zone thereof, a first tubular element vertically depending from said zone, a measuring valve comprising a second tubular element open at the top and slidably fitted to reciprocate within said first element to provide a passage therethrough for the discharge of said material, a closure element for the bottom of said container, means securing said closure element to said second tubular element in vertically spaced relation to the open top thereof whereby to provide an opening extending substantially entirely around the top of said measuring valve for the free admission of material from all sides thereto, said second tubular element being sub-

stantially open at one side of the bottom thereof and provided with means forming an inclined chute extending beneath the open side of said bottom and through or along which the material is discharged; and means secured to said measuring valve and exterior of said first tubular element for manually actuating said valve; said closure element being in contact with the sides of said frusto-conical bottom and sealing said container when said valve is in discharging position.

3. In a dispensing container for dry material of the order of ground coffee a discharge measuring valve comprising a tubular element substantially open at both ends and having its axis vertically disposed, a closure element for said container coaxial with and secured to said tubular element in spaced relation to the upper end thereof to provide an opening therebetween for the admission of material to said valve, and means forming a chute inclined to the axis of said tubular element and extending beneath the open bottom thereof; whereby material falling through said tubular element will strike said chute and be discharged at one side only of said valve.

4. In a dispensing container of the character described for dry material of the order of ground coffee, a measuring valve forming a passageway for the discharge of material from said container and comprising a hollow, inverted, frusto-conical element forming the bottom of said container, an outer tubular element depending from the bottom of said frusto-conical element, an inner tubular element open at the top end thereof and slidably fitted within said outer element, a closure for sealing the bottom of said frusto-conical element carried by said inner element in spaced relation to the open top end thereof, and means exterior of said outer element and secured to said inner element to form a grip for moving the latter within said outer element; said inner element having means at the bottom thereof forming an inclined chute over which material is discharged at one side only of said valve, and which also forms a partial closure for the bottom of said inner element and a full closure for the bottom of the outer element; said passageway being closed at the top when fully open at the bottom and closed at the bottom when fully open at the top.

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