

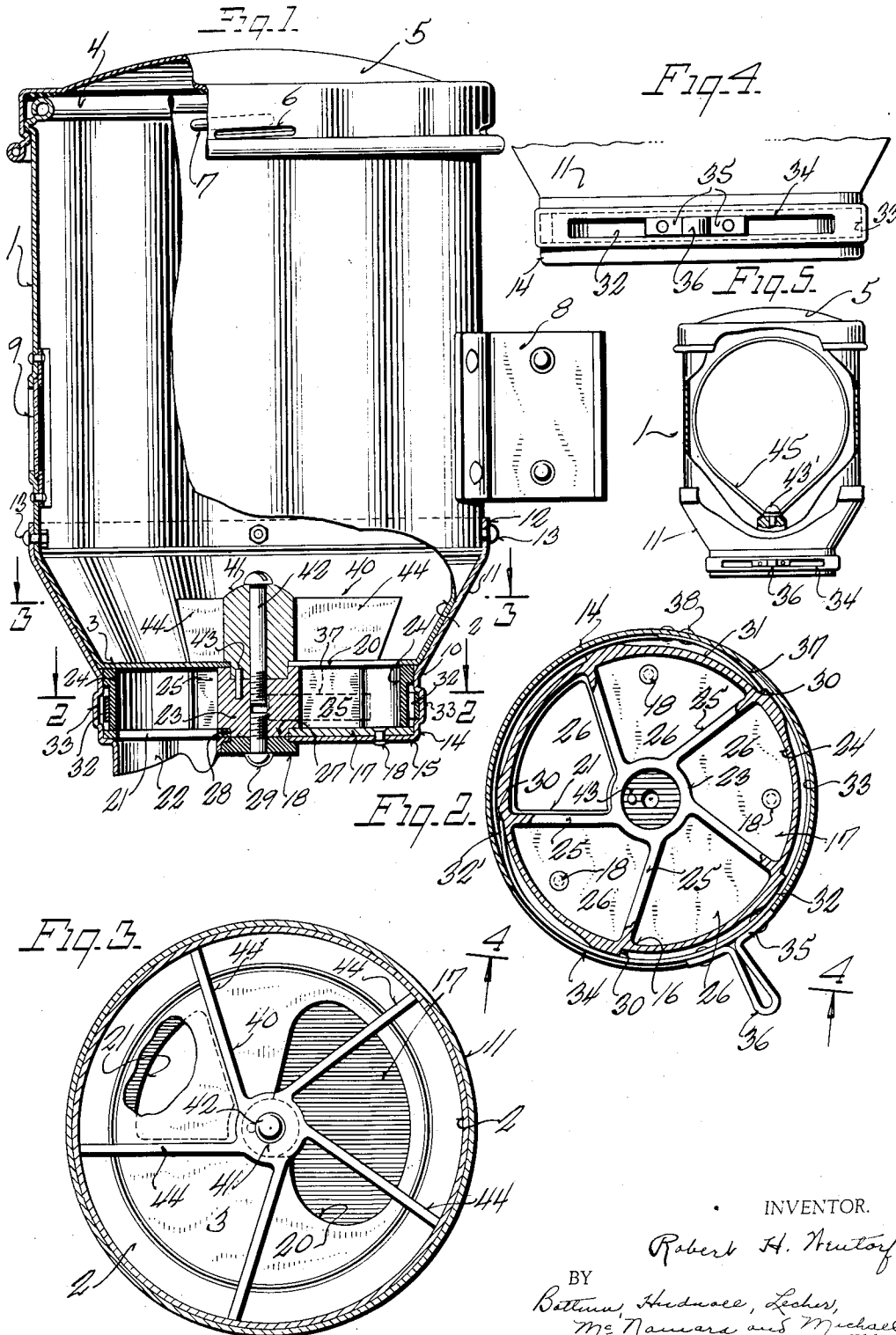
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DISPENSER

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DISPENSER

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This invention relates to an improvement in dispensing containers which may be advantageously used in dispensing measured quantities of coffee although also capable of equally advantageous use with various other materials and substances.

One of the objects of the invention is to provide a dispensing container of simple, compact construction, of neat and attractive appearance and yet capable of being readily and conveniently manipulated for the purpose of dispensing measured quantities of the material contained therein.

Another object of the invention is to provide a dispensing container which is capable of economical manufacture from materials and by means of facilities readily available.

Other objects and advantages reside in certain novel features of the construction, arrangement and combination of parts which will be hereinafter more fully described and particularly pointed out in the appended claims, reference being had to the accompanying drawing forming a part of this specification, and in which:

Figure 1 is a fragmentary view partly in side elevation and partly in transverse vertical section illustrating a dispensing container embodying the present invention;

Figures 2 and 3 are views in horizontal cross section taken on lines 2-2 and 3-3, respectively, of Figure 1;

Figure 4 is a fragmentary view in elevation showing the structure as viewed from line 4-4 of Figure 2; and

Figure 5 is a view partly in elevation and partly broken away and shown in section to illustrate a modified form of agitator which may be employed.

Referring to the drawing, it will be seen that the dispensing container comprises a cylindrical body portion 1 having its lower end portion tapering inwardly as at 2 and terminating in a bottom 3 which may be integral with the body portion or suitably connected thereto. The upper end of the body portion is open and may be rolled or beaded as indicated at 4. A removable cover 5 is provided for the open upper end and when applied may be secured in place by the interengagement of inclined locking ribs 6 and 7 pressed outwardly from the body portion and inwardly from the flange of the cover. A mounting bracket 8 may be attached to the outside wall of the body portion 1 and preferably is disposed opposite a window 9 in the body portion, which window enables the interior of the container to be inspected to some extent without removing the cover 5.

A shell-like housing or compartment forming member 10 is provided and has a tapered portion 11 snugly fitting over the tapered lower end 2 of

the container and terminating at its upper end in a cylindrical flange 12 which overlaps and is secured to the main portion of the container by releasable fastening devices 13 such as bolts and nuts. The lower end of the tapered portion 11 of the housing is integral with a cylindrical portion 14 which, in turn, has integral therewith a bottom or end plate 15. The bottom 3 of the container and the bottom 15 of the housing are parallel and in spaced relation to define a chamber for the reception of a measuring and ejecting wheel designated generally at 16. Preferably, a wear plate 17 is suitably secured to the bottom 15 as, for example, by rivets 18, countersunk in the top surface of the wear plate. This enables the housing to be made of material such as aluminum which may be readily drawn and yet gives the structure the capacity to stand up under the wearing action of the rotating measuring and ejecting wheel 16.

As will be understood from Figures 1, 3 and 4, the bottom 3 is provided with a discharge opening 20 and the bottom 15 and its wear plate 17 are provided with registering openings 21, the discharge openings 21 being angularly spaced from the discharge opening 20. The margin of the discharge opening 21 in the bottom 15 is flanged as at 22 so that the user may easily locate the same and may conveniently position a receptacle in material receiving relation thereto.

The wheel 16 has a hub 23, an annular rim 24 and transverse ribs or spokes 25, adjacent ribs 25 and the portions of the hub and rim comprehended therebetween defining measuring pockets or traps 26. As each of these pockets passes beneath the discharge opening 20 in the bottom of the container they are filled with the material from the container, the material flowing thereinto under the influence of gravity and, if desired, under the influence of an agitator. As the pockets pass beyond the discharge opening the material therein is leveled off by an edge of the discharge opening 20, so that a measured amount of material is contained in each pocket which passes by and beyond the discharge opening 20. As the wheel continues to rotate, the filled pocket comes into registration with the discharge opening 21 and the material drops therethrough into a receptacle held by the operator or positioned in proper relation to the discharge opening 21.

The wheel 16 is constrained to rotation about a fixed axis by having a reduced extension 27 on its hub interfitted with bearing opening 28 provided therefor in the wear plate 17. A washer 18 is similarly interfitted with an opening provided therefor in the bottom plate 15 and is appropriately secured by means of a screw 29 to the hub 23 so as to maintain the wheel down on the

wear plate but, of course, in rotative engagement therewith.

For the purpose of imparting a step by step rotary movement to the wheel 16 the outer periphery of its rim 24 is provided with ratchet teeth having the form of shoulders 30 and inclined surfaces 31 adjacent each shoulder. A pawl 32 in the form of a substantially arcuate spring band is fitted in an annular groove 33 provided in the cylindrical portion 14 of the housing by outwardly displacing a portion thereof. One end of the spring pawl 32 is bent inwardly as at 32' and under the inherent resiliency of the metal making up the pawl is biased into engagement with the shoulders 30. A portion of the outwardly pressed part of the cylindrical section 14 of the housing 10 is cut away or slotted as indicated at 34 (see Figures 2 and 4) and operating in this slot is the attaching portions 35 of a handle 36, the portions 35 being riveted or otherwise suitably secured to the spring pawl 32 and the handle 36 extending outwardly therefrom.

By oscillating the handle 36 and consequently the pawl 32 a step by step rotary movement is imparted to the wheel. When the handle 36 and consequently the pawl 32 are moved in a clockwise direction as viewed in Figure 2, the end portion 32' of the pawl pushes against one of the shoulders 30 and the wheel 16 is rotated in a clockwise direction to move one of the pockets 26 into registration with the discharge opening 21 and to advance the other pockets a similar distance in the same direction. Reverse movement of the handle 36 and of the pawl 32 causes the end 32' of the pawl to ride back up one of the inclined surfaces 31 and then to snap into engagement with the trailing shoulder 30.

Retrograde or backward movement of the wheel 16 under the slight dragging action of the end 32' of the pawl or under other influences is prevented by the provision of a spring pawl 37 positioned in the groove 33 and having one end secured to the wall of the groove as by rivets 38 and having its other end engageable with the teeth 30.

Usually it is desirable to provide some form of agitator to insure flow of the contents of the container through the discharge opening 20 down into the pockets 26. As illustrated in Figures 1 and 3, an agitator designated generally at 40 may be provided and such an agitator consists of a hub 41 which is fastened as by means of a screw 42 and pin 43 to the hub of the wheel 16 so as to be rotated by and from this wheel. Integral with the hub 41 are agitating blades 44 which sweep across the bottom 3 of the container as the agitator turns and consequently sweep across the discharge opening 20.

In lieu of the blade type agitator shown in Figures 1 and 3, the agitator may take the form of a bowed spring shown at 45 in Figure 5 and suitably attached as by means of a screw 43' to an extension of the hub of the wheel 16.

As will be understood, the bottom 3 is centrally apertured to provide for the attachment of the hub 41 of the agitator 40 to the hub 23 of the wheel 16 or for the projection of the extension of the hub 23 into the container.

With a dispensing container constructed in accordance with the present invention, measured quantities of the material may be conveniently and quickly dispensed by simply oscillating the handle 36. The container is not only convenient in use and easily manipulated but is so compactly and effectively organized as not to be liable to get

out of order and as to be durable and efficient over long periods of use. The readily removable cover 5 provides for convenient access to the interior of the container.

While I have shown and described constructions illustrating how the invention may be embodied, it is to be understood that these constructions have been selected merely for the purposes of illustration and that various changes in the size, shape and arrangement of the parts may be made without departing from the spirit of the invention or the scope of the subjoined claims.

The invention claimed is:

1. A dispensing container comprising a body portion having a bottom provided with a discharge opening, a shell-like member interconnected with the lower portion of said container and coacting with the body thereof to form a compartment, said shell-like member having its lower wall formed with a discharge opening spaced angularly from the discharge opening of the bottom, a combined measuring and ejecting wheel rotatably mounted in said compartment and having a number of pockets therein adapted to pass under the discharge opening of the bottom and over the discharge opening in the lower wall of said member, said wheel having ratchet teeth on its periphery, and a manually operable pawl disposed between the periphery of said wheel and the peripheral portion of said member and having an outwardly projecting handle portion, said peripheral wall of said member having an opening through which said handle portion projects.

2. A dispensing container comprising a body portion having a bottom provided with a discharge opening, means coacting with said bottom to form a compartment, said means having a discharge opening spaced angularly from the discharge opening of the bottom and leading from the compartment to the exterior, a combined measuring and ejecting wheel rotatably mounted in said compartment and having a number of pockets therein adapted to pass under the discharge opening of the bottom and over the discharge opening of said means, said wheel having ratchet teeth on its periphery, a pawl in the form of an arcuate band interposed between the periphery of the wheel and said means and having one end engageable with the ratchet teeth, and a handle connected to the pawl, said means having a slot through which said handle projects.

3. A dispensing container comprising a body portion having a bottom provided with a discharge opening, means coacting with said bottom to form a compartment, said means having a discharge opening spaced angularly from the discharge opening of the bottom and leading from the compartment to the exterior, a combined measuring and ejecting wheel rotatably mounted in said compartment and having a number of pockets therein adapted to pass under the discharge opening of the bottom and over the discharge opening of said means, said wheel having ratchet teeth on its periphery, a pawl in the form of an arcuate band interposed between the periphery of the wheel and said means and having one end engageable with the ratchet teeth, a handle connected to the pawl, said means having a slot through which said handle projects, and a second pawl cooperable with said ratchet teeth for preventing retrograde movement of said wheel.

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