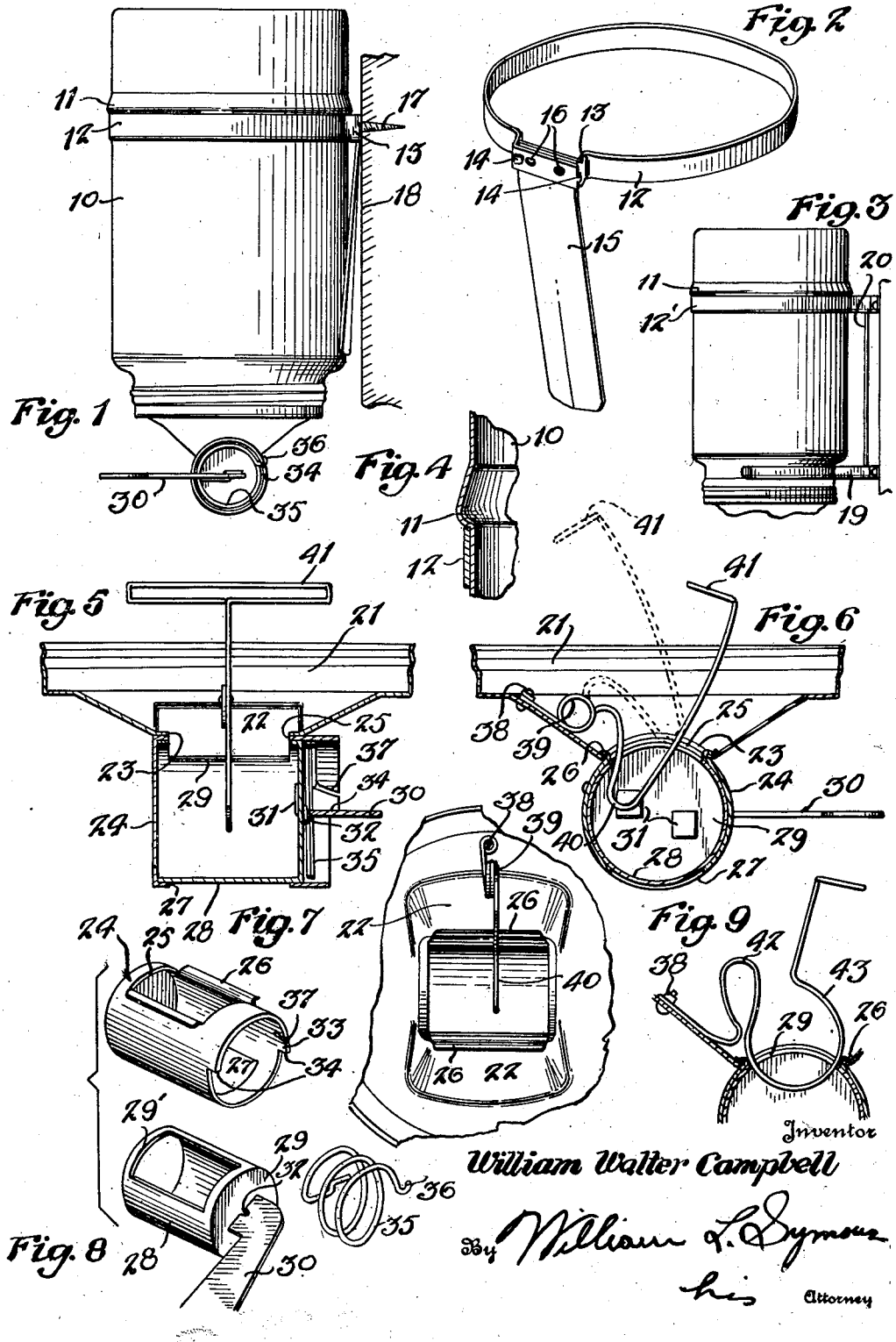
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DISPENSING AND MEASURING DEVICE

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DISPENSING AND MEASURING DEVICE.

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My invention relates to improvements in dispensing and measuring devices and more particularly to a device for dispensing a predetermined quantity of ground coffee, although not in any way restricted to this use, as it may be applied to dispensing bromo-seltzer, malted milk, cereals or the like.

An important object of my invention is to provide a device of this character which will dispense coffee or the like without exposing the contents of the container to the air, thereby serving its aroma and flavor.

Another object of my invention is the provision of a device of this character with means for automatically resetting the measuring and dispensing means.

A further object of my invention is to provide a device of this character with means for agitating the contents of the container.

A still further object of my invention is the provision in a device of the above mentioned character of novel means for supporting the container.

Still another object of my invention is to provide a novel form of container.

Another object of my invention is to provide a device of the above mentioned character which is simple of construction, inexpensive to manufacture, strong and durable.

Other objects and advantages of my invention will be apparent during the course of the following description.

In the accompanying drawings which form a part of this specification and wherein like characters of reference denote like or corresponding parts throughout the same,

Figure 1 is a side elevation of a device embodying my invention,

Figure 2 is a detail perspective view of my novel supporting member,

Figure 3 is a side elevation of a device embodying a modification of the supporting member,

Figure 4 is a detail sectional view of a portion of the container and supporting member,

Figure 5 is a central vertical sectional view of the container cap,

Figure 6 is a similar view taken at right angles to Figure 5,

Figure 7 is a plan view thereof, parts being broken away,

Figure 8 is a detail perspective view of the dispensing and measuring apparatus, and,

Figure 9 is a detail view showing a modified form of agitator.

In the drawings, wherein is shown a preferred embodiment of my invention, the numeral 10 designates a container or jar which is preferably of glass or the like and is molded with a projecting circumferential rib 11 adjacent its lower end and tapering off downwardly, having a pronounced circumferential shoulder at its upper end.

A ring 12 of flat metal has its ends bent to form an offset portion 13, the ends of the ring overlapping to form a double wall at the rear of the offset portion, and tongues 14 on the ends of said ring project through slots to secure the overlapping end portions together. A spring metal finger 15 has one of its ends arranged between the overlapping ends of the ring, and openings 16 extend through the ends of the ring and the finger 15 for the reception of screws 17 or the like. The finger 15 is inclined towards the center of the ring, and extends downwardly therefrom. In use, the ring is secured to a wall or other support 18 by means of the screws 17 and the jar or container 10 is inverted and slipped through the ring 12 until the rim 11 engages the ring, as in Figure 1. The lower end of the finger 15 is bent or curved, as shown, and engages the bottle adjacent its neck as shown in Figure 1 to brace and steady the same.

In Figure 3 I have illustrated a modified form of supporting means which includes a ring 12′ engaging the ring or shoulder 11, and connected with a clasp 19 by means of a vertical bar 20. The clasp 20 engages the bottle or jar around the neck or reduced portion and serves to steady the lower end of the bottle.

A cap member 21 screwthreadedly engages the neck of the bottle 10, and is formed with a trough like portion 22 which terminates in a rectangular opening 23. A cylindrical chamber 24 has a rectangular opening 25 adapted to correspond with the opening 23, the sides of the opening 23 being shaped to snugly fit the contour of the cylindrical chamber 24. The sides of the opening 25 are provided with integral flaps 26 which fit within the opening 23 and are pressed over the sides thereof to firmly secure the chamber 24 to the cap 21. This construction results in a snug, air-tight fit without soldering or welding.

An opening 27 corresponding in size and contour to the opening 25 is arranged diametrically opposite thereto. A cylindrical

measuring receptacle 28, somewhat shorter than the chamber 24, is rotatably received in the chamber 24 and has an opening 29′ adapted to correspond alternately with the openings 25 and 27. The chamber 24, and the measuring receptacle 28 are closed at opposite ends and the end 29 of the receptacle 28 is provided with a laterally extending offset handle member 30 terminating in spaced ears or lugs 31 which extend through suitable slots in the end wall 29 and are bent back upon the wall in opposite directions as shown in Figure 6, leaving an opening 32 between the ears exteriorly of the wall 29.

The receptacle 28 fits snugly in the chamber 24, it being inserted through the open end thereof, said open end being provided with an extension 33 for one-half of its circumference, forming stops 34 at each end, against which the handle 30 abuts at the end of each rotational movement of the receptacle 28. A coil spring 35 has one end bent to pass through the aperture 32, and is secured to the handle 30 by being bent over flat against said handle, the other end of the spring having a hook-like portion 36 adapted to be received in an inclined slot 37 in the extension 33, the inclination of the slot serving to retain the spring against inadvertent displacement. The coil spring secures the receptacle within the chamber 24 by its axial tension, no other securing means being necessary and, it also holds the receptacle in the position shown in Figures 1, 5 and 6, with the opening 29′ corresponding with the openings 23 and 25, and the handle 30 abutting against one of the stops 34. When the receptacle 28 is rotated until the handle 30 abuts against the other stop 34, its contents are discharged through the opening 27, and when the handle is released, the coil spring 35 returns the receptacle to its normal position with the opening 29′ corresponding with the openings 23 and 25. It will be seen then that the spring 35 serves the dual function of securing the receptacle in the chamber 24 and returning it to its normal position automatically, thus assuring that the receptacle will not be left open to the atmosphere.

In order to insure the proper feeding of the coffee or other receptacle 28, I provide an agitator which is operated by the rotation of the receptacle. The agitator is preferably formed from a piece of spring wire having one end secured to the inside of the cap at 38, is coiled about itself at 39 adjacent the securing member 38 and has a looped portion 40 normally extending through the opening 25 into the receptacle 28. The end of the agitator extends above the cap and terminates in a transverse member 41. When the receptacle 28 is rotated, the side of the opening 25 forces the agitator into the position shown in dotted lines in Figure 6, and when the handle 30 is released, the agitator returns to its full line or normal position, the tension of the coil 39 assisting in returning the receptacle to its normal position. The coil 39 serves to offset the ends of the agitator, as shown in Figure 7 and as a consequence its tension will impart an additional movement transversely of the coil.

In Figure 9 I have shown a modified form of agitator in which a single loop 42 takes the place of the coil 39 and the loop 43 is large enough to rest on both sides of the openings 25 and 23.

It will be seen that I have provided a dispensing and measuring device which is practically air-tight, is simple in construction and operation and which is inexpensive to manufacture.

While I have shown and described the preferred embodiment of my invention, it is to be understood that various changes in the size, shape and arrangement of parts may be resorted to without departing from the spirit of my invention, or the scope of the subjoined claims.

Having thus described my invention what I claim and desire to protect by Letters Patent is:

1. A measuring device for containers comprising a chamber having inlet and discharge openings therein, a measuring compartment arranged within said chamber and having an opening normally registering with said inlet opening in the chamber, a member adapted to be manually operated to move said measuring compartment to cause the opening therein to register with the discharge opening of the chamber, and resilient means retaining said measuring compartment within the chamber and adapted to return said measuring compartment to its normal position upon release of the manually operated member.

2. A measuring device for containers comprising a cap for said container, said cap having a chamber with inlet and discharge openings therein, the inlet opening communicating with the interior of the container, a measuring compartment arranged within said chamber and having an opening normally registering with the inlet opening of the chamber, said measuring compartment being adapted to be moved to cause the opening therein to register with the discharge opening and close the inlet opening, an agitator having one end fixed and having a portion extending into said inlet opening, and normally arranged within said measuring compartment, and resilient means normally holding said portion of the agitator within said measuring compartment whereby movement of said compartment to close said inlet opening will force the agitator out of the opening in the measuring compartment against the tension of the resilient means and

whereby the resilient means will return the agitator to its normal position when the inlet is opened.

3. A measuring device for containers comprising a cap for said container, a measuring compartment supported by said cap, said cap having an opening therein normally communicating with the interior of the measuring compartment, means whereby said measuring compartment may be moved to close said opening in the cap, an agitator having one end fixedly secured to the cap and having a member extending through said opening in the cap, and means normally holding said agitator within said opening whereby when the measuring receptacle is moved to close said opening the agitator will be moved thereby in a path above and substantially transversely of said opening.

4. A measuring device for containers comprising a cap for said container, a measuring compartment supported by said cap, said cap having an opening therein normally communicating with the interior of said measuring compartment, means whereby said measuring compartment may be moved to close said opening in the cap, an agitator of spring material having one end fixedly secured to the cap and being bent upon itself, to form a spring coil, a portion of said agitator extending into said opening whereby movement of the measuring compartment to close said opening will move said agitator against the tension of said spring coil in a path above and substantially transversely to said opening.

5. A measuring device for containers comprising a cap for said container, said cap terminating in an opening, a chamber having diametrically opposed openings therein of the same size and configuration as the opening in the cap, one of the openings in the chamber being adapted to correspond with the opening in the cap and having flaps formed on the sides thereof and adapted to be pressed over the edges of the opening in the cap to secure the chamber to the cap, and a measuring compartment rotatably arranged within the chamber and having an opening adapted to alternately register with the openings in the chamber.

6. A measuring device for containers comprising an open ended chamber having an inlet and a discharge opening, the inlet opening being in communication with the interior of the container, a measuring compartment rotatably received in said chamber, and having an opening adapted to register alternately with the inlet and discharge openings of the chamber, a handle on said measuring compartment adapted to move in a recess in the chamber, the ends of the recess serving as stops to limit the movement of the handle.

7. A measuring device for containers comprising a chamber having inlet and discharge openings therein, the inlet opening communicating with the interior of the container, a measuring compartment rotatably mounted in the chamber and having an opening adapted to alternately register with the inlet and discharge openings in the chamber, and a handle member secured to one end of the measuring compartment and moving in a recess in the end of the chamber, the ends of the recess serving as stops to limit the movement of the handle and a coil spring secured at one end to the handle member and at the other end to the wall of the chamber adjacent its end, said spring serving to retain the measuring compartment within the chamber and to return the measuring compartment to its normal position with its opening registering with the inlet of the chamber.

8. A measuring device for containers comprising a cap for said container, said cap having a chamber with an opening communicating with the interior of the container, a measuring chamber rotatably arranged in said container, a coil spring secured at one end to a portion of the measuring compartment and at the other end to the chamber and serving to retain the measuring compartment in the chamber and to return the measuring compartment to its normal position after rotation, said measuring compartment having an opening adapted to normally register with the opening in the chamber, and an agitator secured to said cap and comprising a member normally extending through the openings in the chamber and in the measuring compartment and means holding said agitator into contact with the measuring compartment.

9. A measuring device for containers comprising a chamber having an inlet opening in communication with the interior of the container, said container being cylindrical in shape and having one of its ends closed, said container having a spaced discharge opening, spaced from said inlet opening, a measuring compartment rotatably arranged in said chamber, and having an opening which normally registers with the inlet opening of the chamber, said measuring compartment having one end closed, said closed end being arranged adjacent the open end of the chamber, a handle member secured to the closed end of the measuring compartment and adapted to rotate the measuring compartment to bring the opening therein into registration with the discharge opening of the chamber, said chamber having its open end recessed to receive the handle member, the ends of the recess serving as stops to limit the movement of the handle member, and a coil spring secured at one end to said handle member and having its other end received in a slot in the open end of the chamber, said coil spring serving to retain the measuring compartment in the chamber and to return the same to its normal position after rotation.

10. A measuring device for containers comprising a chamber having inlet and discharge openings, a measuring container having an opening therein, and adapted to be moved to bring said opening into alternate registration with the inlet and discharge openings in the chamber, an agitator secured adjacent the inlet opening in the chamber having a member engaging the measuring compartment, whereby movement of the measuring compartment will impart movement to the agitator and resilient means forcing the agitator against the measuring compartment.

In testimony whereof I affix my signature.

WILLIAM W. CAMPBELL.