April 1, 1930. A. P. HOWARD 1,752,527

MEASURING DEVICE

Filed Feb. 15, 1928

FIG. 1

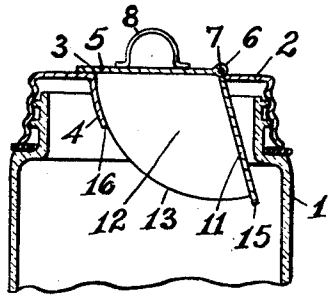


FIG. 3

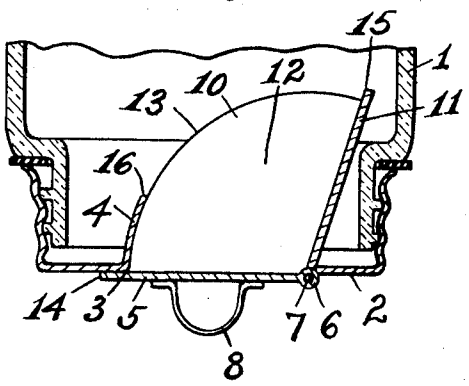


FIG. 2

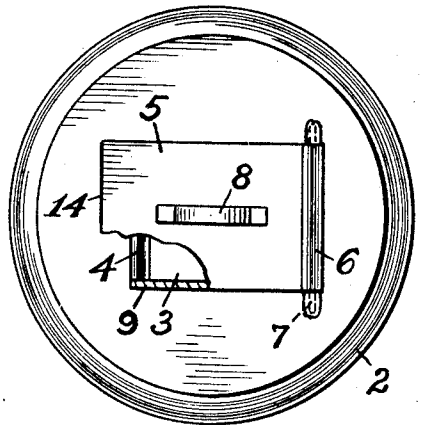


FIG. 4

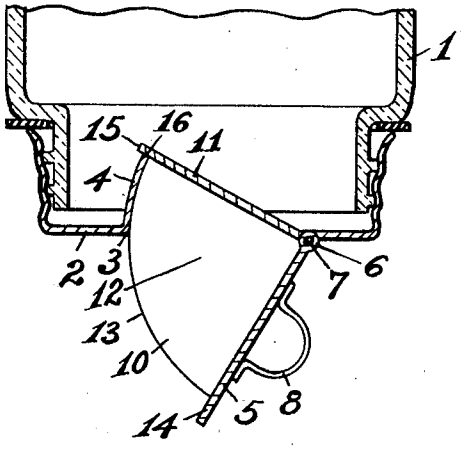


FIG. 6

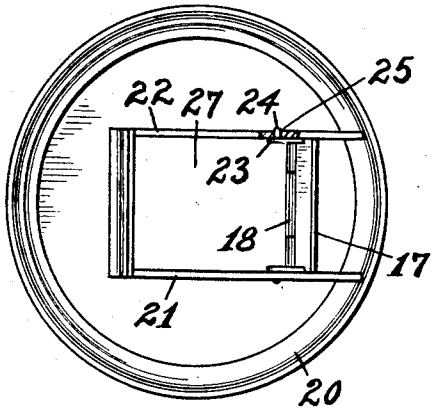
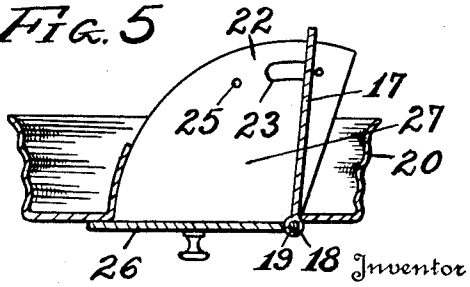


FIG. 5



Inventor

A. P. Howard

By G. H. Umstad,

his Attorney

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UNITED STATES PATENT OFFICE

ALBERT P. HOWARD, OF NORWALK, OHIO

MEASURING DEVICE

Application filed February 15, 1928. Serial No. 254,391.

This invention relates to dispensing devices of the measuring type, and has for its principal object to provide a measuring device of simple and inexpensive construction, which is a part of the cover of a receptacle and will automatically fill by turning the receptacle up-side-down and then swing to discharging position.

Another object of the invention is to provide a measuring device, in which the capacity of the receiving compartment thereof may be changed so as to deliver various set amounts.

With the above and other objects in view, the invention will be hereinafter fully described as illustrated in the accompanying drawings, and the novel features thereof will be distinctly pointed out in the appended claims.

In the several views of the drawings, similar characters of reference are used to designate corresponding parts.

Figure 1 illustrates in sectional elevation a receptacle having a cover provided with a measuring device in accordance with my invention,

Fig. 2 is a plan view, on an enlarged scale, of Figure 1,

Fig. 3 is a similar view of Figure 1, the receptacle being inverted,

Fig. 4 is a similar view to Fig. 3, the measuring device being in its open or discharging position,

Fig. 5 is a cross sectional view of a cover for a receptacle with a modified form of the measuring device, and

Fig. 6 is a plan view of Fig. 5.

Referring to the drawings, 1 represents a receptacle, as for instance a "Mason" jar, and 2 the ordinary cover therefor. The cover 2 is provided with a rectangular opening 3, the material of the cover at one end of said opening being bent inwardly and curved on the arc of a circle struck from the other edge of said opening to form a partition 4. A closure for the rectangular opening 3 consists of a plate 5, which is hingedly connected at 6 to a rod 7 having its ends fixed to the outside of the cover 2. A suitable handle 8 is fixed to the outside of the closure plate 5. The closure plate 5 supports a pair of sides 9 and 10 which form with a rearwardly inclined end plate 11 a compartment 12 for receiving the contents of the receptacle 1. The sides 9 and 10 are spaced apart sufficiently to slidably engage the side edges of the rectangular opening 3 of the cover 2, and their edges at 13 are curved on the arc of a circle corresponding to and adapted to engage the partition 4. The closure plate 5 extends at 14 beyond the rectangular opening 3 so as to engage the outside of the cover 2 for limiting the inward movement thereof, and the inclined end plate 11 extends beyond the sides 9 and 10 as at 15 for engaging the transverse edge 16 of the partition 4 to limit the outward movement of the closure plate 5.

In practice, assuming that the jar 1 contains coffee, tea, or other product to be stored and dispensed for use in certain amounts: The closure 5 is held shut and the jar turned up-side-down, which causes the contents of the jar to completely fill the compartment 12. Upon releasing the closure 5, the same will swing downwardly thereby serving as a chute and permitting the contents of the compartment 12 to fall out over the extension end 14 of said closure. When the extension 15 of the rear plate 11 engages the transverse edge 16 of the partition 4, the compartment 12 is closed against further entrance of the contents of the jar, and the contents of said compartment falls therefrom. In this manner a definite amount of the contents of the jar has been dispensed. By turning the jar right-side-up, the closure 5 will automatically return to its normal closed position.

It is desirable to be able to change the capacity of the compartment 12 to dispense various set amounts, and this is accomplished by pivotedly connecting the rear plate 17 at 18 to the rod 19 fixed to the outside of the cover 20 as is the rod 7, so that said rear plate may swing between the side plates 21 and 22. The rear plate 17 is preferably made of spring material and formed integrally therewith at the edges thereof and at right angles to said plate are springs indicated by 23, which carry outwardly extending pins 24 for engaging openings 25 of the side plates 21 and 22 so as

to hold said rear plate in various adjusted positions. In proportion as the angle of the rear plate 17 with the closure plate 26 is reduced, the less will be the capacity of the compartment 27 and therefore the amount dispensed. A greater or less amount of the contents of the receptacle may be dispensed according as the adjustment of said rear plate decreases or increases the capacity of the compartment 27.

The advantages of the invention will be understood from the above description in connection with the accompanying drawings without further explanation, and it will be understood that slight changes in the details of construction may be made within the scope of the claims.

Having fully described my invention, what I claim is:

1. In a measuring device, the combination of a cover for a receptacle, the cover being provided with an opening, a partition at one end of the opening extending within the receptacle and curved on the arc of a circle, a closure plate for the opening, the closure plate being pivotally supported to the outside of the cover, sides and a rear plate carried by said closure plate forming a compartment, the sides being curved to conform to the curve of said partition, and means for limiting the movement of said compartment.

2. In a measuring device, the combination of a cover for a receptacle, the cover being provided with an opening, a partition at one end of the opening extending within the receptacle and curved on the arc of a circle, a closure plate for the opening, the closure plate being pivotally supported to the outside of the cover, sides and a rear plate carried by said closure plate forming a compartment, the sides being curved to conform to the curve of said partition, and said rear plate having an extension adapted to engage said partition for closing the entrance to said compartment and limiting the movement thereof.

3. In a measuring device, the combination of a cover for a receptacle, the cover being provided with an opening, a partition at one end of the opening extending within the receptacle and curved on the arc of a circle, a closure plate for the opening, the closure plate being pivotally supported to the outside of the cover, sides carried by said closure plate, the sides being curved to conform to the curve of said partition, a rear plate pivotally supported and adapted to move between said sides forming a compartment therewith, means for adjustably fixing the rear plate to said sides, and the rear plate having an extension adapted to engage said partition for closing the entrance to said compartment and limiting the movement thereof.

4. In a measuring device, the combination of a cover for a receptacle, the cover being provided with an opening, a partition at one end of the opening extending within the receptacle and curved on the arc of a circle, a closure plate for the opening, the closure plate being pivotally supported to the outside of the cover, sides carried by said closure plate; the sides being curved to conform to the curve of said partition, a rear plate pivotally supported and adapted to move between said sides forming a compartment therewith, springs carried by the rear plate, the springs carrying pins, said side plates being provided with openings arranged on the arc of a circle adapted to receive the pins of said springs, and means for limiting the movement of said compartment.

5. The combination with a container having an opening therein, of a trough shaped measuring dispensing attachment tiltably mounted in the opening and including marginal sealing flanges projecting above the side edges of the trough, and a material dividing flange on the inside of said container acting to cut sharply through material in the container as the trough is tilted outwardly and positioned to be engaged by one of said sealing flanges to limit the outward tilting movement of the trough, whereby the material in the container cannot jam between the sealing flanges and the container and retard or prevent full outward movement of the trough.

6. The combination with a container having an opening therein, of a trough shaped measuring dispensing attachment tiltably mounted in the opening and including marginal sealing flanges projecting beyond the side edges of the trough, and a material dividing flange acting to cut sharply through material in the container as the trough is tilted outwardly and to limit the outward tilting movement of the trough, whereby the material in the container cannot jam between the sealing flanges and the container and retard or prevent full outward movement of the trough, said dividing flange being struck inwardly from the container at one edge of the opening, lying within the trough and coacting with one of the sealing flanges to limit movement of the trough in one direction.

In testimony whereof I affix my signature.

ALBERT P. HOWARD.