Sept. 18, 1956 A. F. STAGMEIER 2,763,409

DISPENSING CONTAINER

Filed April 29, 1953

FIG. 1.

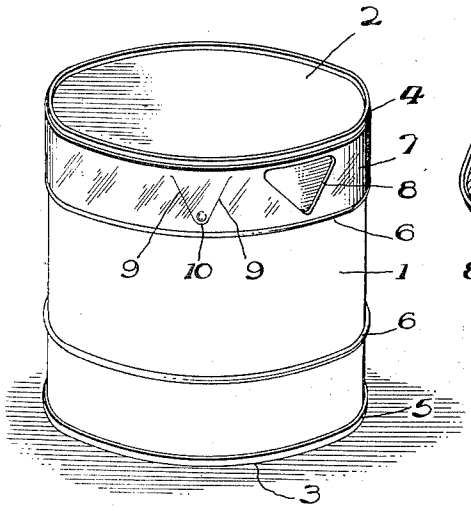


FIG. 2.

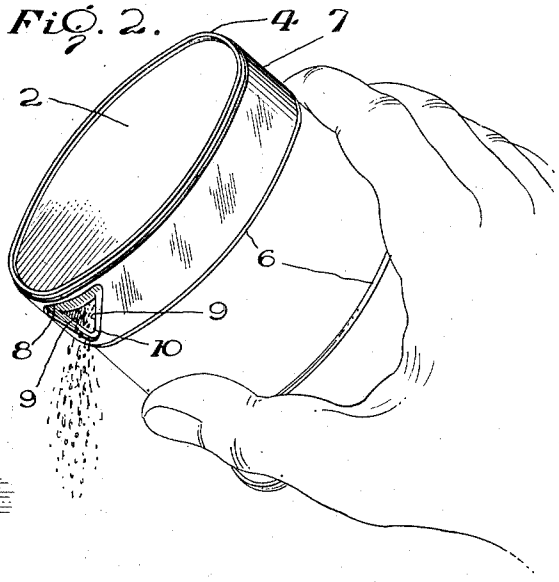


FIG. 3.

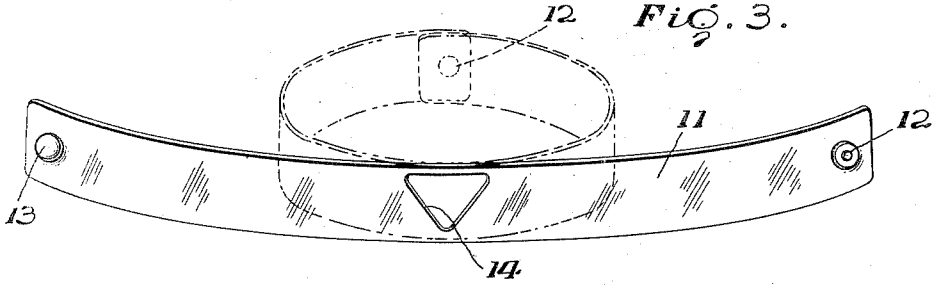


FIG. 4.

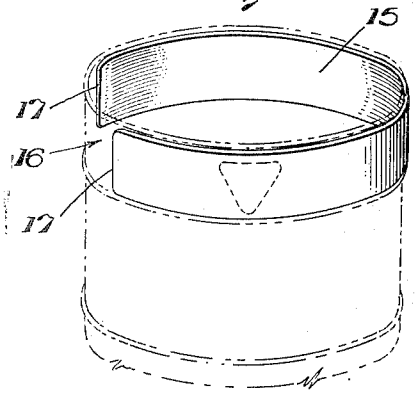
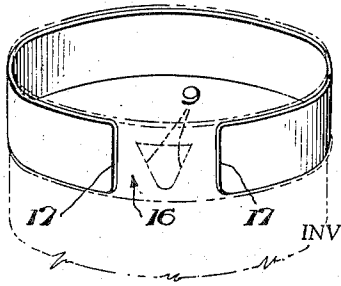


FIG. 5.



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DISPENSING CONTAINER

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1 Claim. (Cl. 222—541)

This invention relates to metallic containers of the type that are hermetically sealable for packing foods and other materials under vacuum, and more particularly to novel means whereby the wall of such a container is easily rupturable to provide a pouring opening through which the contents can be dispensed, and whereby the pouring opening can be closed when not in use.

Containers of the kind to which the invention relates are typified by the well known vacuum packed coffee can. The coffee is packed initially under high vacuum and the container must be capable of sustaining large external pressures without leakage or distortion. When freshly roasted coffee is packed, moreover, it often happens that the gases escaping from the coffee build up a pressure inside the can that becomes greater than the external atmospheric pressure with resultant bulging of the can ends. In spite of numerous efforts and experiments, other kinds of containers have failed to meet these requirements satisfactorily and the cylindrical metal can is still the best and the most widely used container for vacuum packed coffee.

In many other types of containers for packaging many different kinds of materials, it is a common practice to provide some sort of dispensing opening such as the pouring spouts found in consumer salt cartons, the holes closable by sliding or rotating shutter members such as are found in tooth powder and talcum powder cans, and so on. But the strong, rigid, integral metal wall of an evacuated, hermetically sealed can does not lend itself to the use of such known expedients for dispensing its contents. Instead the usual practice is to form score lines defining a tear strip that extends circumferentially entirely around the can and can be wound up on a key to separate the entire end of the can from the can body. The can may then serve as an ordinary container having a slip cover or lid. To this end the upper part of the cylindrical can wall may be provided with a lip or rim which extends upwardly inside the tear strip and serves to receive the lid after the tear strip is removed.

The present invention retains the characteristics and advantages of the cylindrical hermetically sealed metal wall, but eliminates the key, tear strip and lip mentioned above and at the same time provides in the container wall an easily rupturble pouring or dispensing opening together with an adjustable closure member therefor.

The invention has been illustrated in the accompanying drawings, but it is to be expressly understood that said drawings are for purposes of illustration only and are not to be construed as a definition of the limits of the invention, reference being had to the appended claims for this purpose.

In the drawings,

Figs. 1 and 2 are perspective views illustrating a container embodying the invention;

Fig. 3 is a perspective view of a closure member that can be used with the container shown in Figs. 1 and 2; and

Figs. 4 and 5 are perspective views illustrating another form of closure member.

Referring first to Figs. 1 and 2, the container comprises a cylindrical metal wall 1 and metal end walls 2 and 3 that are integrally joined together in any suitable manner to form a hermetically sealed cylindrical can. The junctures of the end walls 2 and 3 with the cylindrical wall 1 comprise the usual projecting beads 4 and 5, and any suitable number of projecting beads 6 may extend circumferentially around the cylindrical wall 1, being suitably spaced from the end beads 4 and 5. It will be understood that the proportions of the can can be varied as desired, and that the projected beads 6 forming the slideway or groove with bead 4 may be continuous or discontinuous.

At one end of the can, i. e., the top as seen in Fig. 1, the bead 4 and the adjacent bead 6 define a depressed slideway or groove within which is confined a circumferentially adjustable closure member in the form of a slip ring 7 having an opening 8 therein. This slip ring can be made of any suitable material, but in the form shown comprises a transparent flexible strip of suitable plastic which is freely slidable around the can in the groove formed between the spaced beads 4 and 6.

The cylindrical wall of the can between the beads 4 and 6 is further provided with score lines forming an easily rupturable pouring or dispensing opening. Preferably and as shown, score lines 9 extend downwardly from points closely adjacent the top bead 4 and also converge so as to meet or intersect at a point near the lower bead 6. These lines are visible through the transparent slip ring 7 as shown in Fig. 1 and form a substantially triangular flap. Near the junction of score lines 9 a small depression or dimple 10 in the flap is spaced for registry with the point of a conventional beer can opener. The dimple not only allows easy opening of the flap with a can opener but also permits easy opening with a fork, screwdriver or other such instrument. The opening 8 in the slip ring may have any suitable shape, but usually should be large enough to completely expose the triangular flap when moved to the proper position.

Thus it will be seen that the score lines 9, 10 are clearly visible to the user at any and all times. To open a can, it is only necessary to move the slip ring 7 circumferentially until its opening 8 registers with the flap formed by the score lines and then to fold the flap inwardly around a hinge line close to and parallel with the bead 4, preferably using a beer can opener for the purpose. The can is then in the condition shown in Fig. 2 so that the desired amount of coffee can be poured out, after which the slip ring 7 is moved to close the pouring opening until more coffee is needed.

It will be evident that if desired, cans as shown in Figs. 1 and 2 can be marketed without slip rings. After opening, the coffee can be poured out into another container as is often done with the present type can, or can be left in the can and dispensed as needed through the triangular opening. On the other hand, customers who prefer closures may be provided with detachable slip rings which can be applied to a can until its contents have been exhausted and then removed and applied to another can. Such a detachable slip ring, moreover, constitutes an attractive premium device of substantial sales promotional value. Fig. 3 illustrates a detachable slip ring suitable for such purposes and comprising a strip 11 of transparent flexible plastic similar to that of the strip 7 described above, the strip being provided at its ends with snap fastener means 12, 13 and intermediate its ends with a triangular opening 14. The length of the strip being substantially equal to the circumference of the can and its width being substantially equal to the distance between

the beads **4** and **6**, it will be seen that the strip **11** can be applied to the can in the same manner as the strip **7** of Figs. 1 and 2 simply by wrapping it around the end of the can and connecting the snap fasteners **12**, **13** together as indicated in dotted lines in Fig. 3.

Figs. 4 and 5 show a detachable slip ring in the form of a strip **15** of resilient material curved into substantially circular form on a radius somewhat less than that of the can to which it is to be applied. The width of the strip **15** is substantially equal to the distance between the beads **4** and **6** of the can so that the strip can be snapped onto the can between the beads to provide a circumferentially adjustable slip ring similar to the slip ring **7** of Figs. 1 and 2. The strip **15** can be provided with an opening similar to the openings **8** and **14** if desired, but preferably is shorter than the circumference of the can by an amount such that the gap **16** between the ends of the strip is long enough to expose the opening **9**, **10** as indicated in Fig. 5.

It will be seen that the invention does not interfere in any way with the desired characteristics of the can, retaining its cylindrical shape, its strength and rigidity, and its integral metallic wall construction and hermetically sealed state. At the same time much of the scoring required for the usual tear strip is eliminated, together with the key and the common inner slip construction. Yet the can can be opened much more quickly and easily than by winding up a tear strip on a key, and furthermore is provided with a pouring opening adapted for dispensing its contents in small amounts but which can be closed at will when the can is not in use.

It will be understood that the invention is not restricted to the details of the foregoing description or of the accompanying drawings, and that various changes in these details can be made without departing from its spirit. Reference should therefore be had to the appended claims for a definition of the limits of the invention.

What is claimed is:

A hermetically sealable metallic container for packing pourable foods and like materials under vacuum but adapted to be ruptured to provide a closable dispensing opening, said container comprising an integral metal wall forming a sealed container of substantially cylindrical form but having a projecting bead formed around the junction of its cylindrical wall portion with one end wall portion and another projecting bead extending circumferentially around its cylindrical wall portion parallel to but spaced from said first bead, said cylindrical wall portion having a weakened, rupturable section comprising score lines extending downwardly from said end bead and converging to meet one another close to said second bead, said lines to form a pouring opening, and a detachable slip ring surrounding said container and confined between said two beads, said ring having an opening and being circumferentially adjustable on said container to move its opening into and out of registry with said weakened section, said ring comprising a strip of flexible plastic of a length to surround the cylindrical container and of a width to fit between said two beads, the opposite ends of said strip having cooperating snap fastener means to connect said ends together and said strip having an opening intermediate its ends which is at least as large as said dispensing opening in the container wall.

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