Oct. 29, 1935. R. T. GARFEIN 2,019,406

DISPENSING CONTAINER

Filed Feb. 17, 1934

Fig. 1.

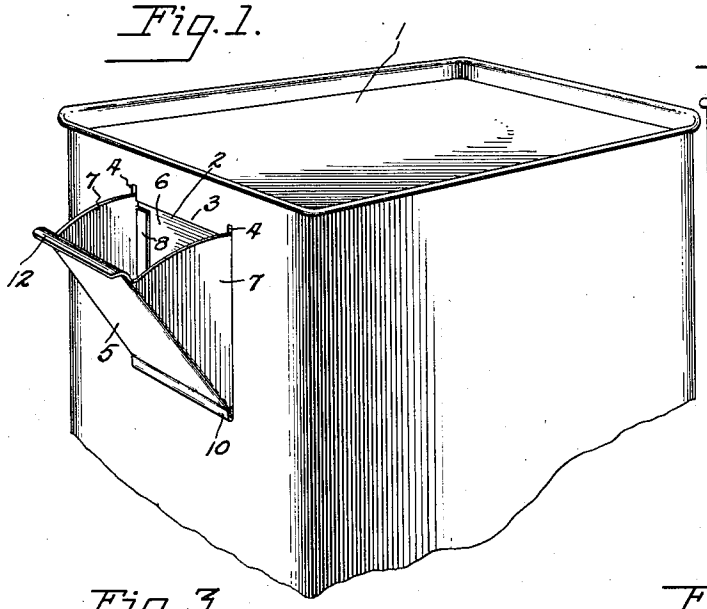


Fig. 2.

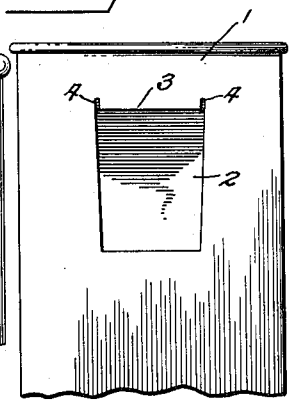


Fig. 3.

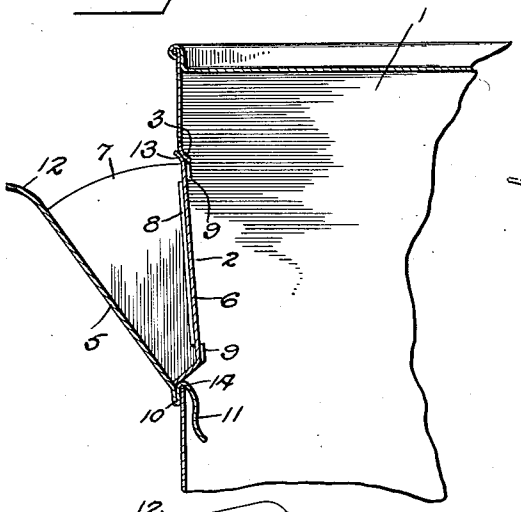
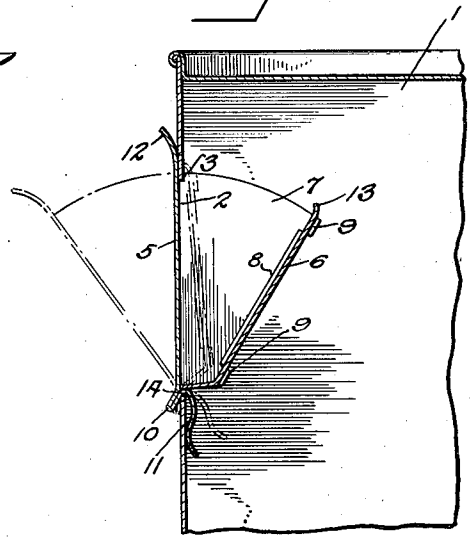


Fig. 4.



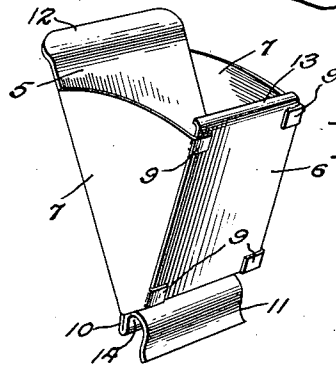


Fig. 5.

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DISPENSING CONTAINER

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Application February 17, 1934, Serial No. 711,757

3 Claims. (Cl. 221—98)

This invention relates to measuring or dispensing units designed for cooperation with more or less bulk containers and operating in one position to receive material from within the container and in another position to discharge the same.

Containers with measuring and dispensing spouts are well known and are in general use. They are ordinarily identified as a sector-like receptacle swingingly or tiltably mounted in a container wall opening so that in either of their extreme movements they are effective to seal the opening. The general practice has been to mount them by means of a pivot pin fixed with relation to the bulk container but sometimes they are mounted in a manner somewhat akin to the principle of the knife bearing. In any event, all of the mountings of the old practice suffer the disadvantage that they require bending or offsetting or some other modification which can only be done from inside the bulk container in order to secure the dispensing unit or spout under such restraint that it properly will perform its normal function. Under ordinary conditions such modification of the spout or of some part thereof and/or the bulk container in order to accommodate the spout makes for added labor and expense. Consider then the added problem when it is desired to convert a large stock of conventional bulk containers. The desideratum is a measuring and dispensing spout of the self-contained type so constructed, arranged and mounted that it requires no parts that must be manipulated from within the bulk container in order that it may be secured in normal relation with the container.

Therefore, the primary object of the invention is to provide a measuring or dispensing spout so constructed and arranged that it may be applied or removed with relation to a container wall opening from a point outside of said opening and without the necessity of modifying, as by deforming, a part or parts of the spout such as heretofore had to be done within the interior of the container.

A further object is the provision of a container wall opening having a yielding or resiliently displaceable wall portion which yields under stress of external application of the spout, permitting the back wall thereof to be snapped past it and thereupon resuming its normal plane to maintain the spout under proper restraint, that is, to permit normal operative movement of the spout while inhibiting casual separation thereof with relation to the bulk container.

The nature, characteristic features and scope of the invention more readily will be understood from the following detailed description taken in connection with the accompanying drawing, forming a part hereof, wherein:—

Figure 1 is a perspective view showing the measuring or dispensing unit in applied position and in discharge relation.

Fig. 2 is a face view of a container wall showing the opening for the measuring unit or dispensing spout modified in accordance with my invention.

Fig. 3 is a vertical sectional view illustrating the external application of the spout and showing how the yielding or resilient wall portion of the bulk container has been depressed inwardly under application of stress of the extended back wall of the spout.

Fig. 4 is a similar view showing the spout in sealed and closed position, the yielding wall of the container having returned to its normal plane.

Fig. 5 is a perspective view of the dispensing unit or spout.

The container 1 which may be constructed of fiber, tin, or any other appropriate material, is, for the purposes of the present invention, formed with a generally rectangular opening 2 having a yielding or resiliently displaceable portion 3. That result is attained by slitting the end wall, as at 4, in line with the side walls and thus conferring upon the wall portion 3 the property of moving out of its normal plane under application of exerted effort or stress and of then resuming its normal plane upon removal of said stress.

The dispenser or measuring spout is a sector-like body having downwardly converging front and rear walls 5 and 6 and parallel side walls 7. In the embodiment shown the front and side walls are erected from a single piece of material appropriately bent, and the rear wall 6 of a separate piece slidably secured between tongues fashioned from the margins of the side walls. The lower end of the front wall 5 has a return bend 10 which together with the downwardly extending extremity 11 forms a gutter whereby the spout may be tiltably mounted on the bottom wall of the container opening. The tops of the side walls are of arcuate form and are accommodated by the slits 4. Front wall 5 is extended and outwardly flared as at 12 to insure appropriate sealing relation with the container when the spout is within the same and to constitute a convenient fingerhold in manipulating the spout. So also the rear wall of the dispensing unit is extended as at 13 so that when snapped past the yielding

or resilient wall or lip 3 it will constitute a locking tongue to inhibit casual displacement of the dispensing unit and also cooperate with the lip properly to seal the parts.

As thus constructed the dispensing unit or spout has a distinct hinge element defined by the gutter or recess 14 formed between the lip 10 and the flange 11 and an upwardly extending locking tongue 13 at the upper edge of the wall 6. The spout in maximum width is equal to the width of the opening 2 in the container, and the vertical dimension of the side walls 7 is slightly in excess of the length of the side walls of the container opening 2, exclusive of the slits 4.

As already remarked an essential characteristic of the improvement is the complete facility with which the dispensing or measuring unit may be applied or removed from the container from the exterior thereof, and without any necessity of access to the interior of the container for any purpose in connection therewith. This is an important feature from a commercial standpoint and admits of complete provision of the containers and spouts as separate units, charging of the containers and subsequent application of the spouts at will.

In applying the spout the hinge or gutter portion is cradled on the bottom wall of the container opening 2, the flange 11 being positioned within the container and the lip 10 exteriorly thereof. The spout is swung on its hinge connection until the locking tongue 13 is in contact with the yielding or resiliently displaceable lip 3 of the container opening. Pressure on the spout causes the tongue 13 to displace the lip 3 sufficiently to ride beneath the same and into the container. The spout is now in applied position, and it is obvious that in the opening movement of the spout, tongue 13 will engage the inner face of the lip 3 and serve to prevent casual displacement of the spout.

The simplicity of my self-contained dispensing unit, the facility and dispatch with which it may be applied from a point externally of the container and without the necessity of access from a point within the container in order to provide locking or restraining devices, and its effective sealing of the container in both filling and discharge positions, will have a decided appeal to the trade and will tend greatly to enlarge the sphere of usefulness of containers of the dispensing type.

Having described the invention, what is claimed is:—

1. In combination, a container formed with an opening having a resiliently displaceable margin, a measuring unit formed with a hinge member whereby it may be cradled in the opening and with a locking lip to engage and displace said margin in the initial application of the unit and engage in rear of said margin in the opening swinging movement of the unit to prevent separation of the unit and container during operative movement of the unit.

2. A container formed with an opening having a resiliently displaceable margin, a unit formed with a hinge recess to cooperate with one edge of the opening for swingingly supporting the unit, said unit having a locking lip operative to engage and displace the resilient margin of the opening from the exterior in the application of the unit and to engage said margin from the interior after application of the unit to serve as a limiting abutment for the operative movement of the unit, the wall of the container at the ends of the resiliently displaceable portion providing slits to receive and guide the walls of the unit during swinging movement.

3. A container formed with an opening having a resiliently displaceable margin, a unit formed with a hinge recess to cooperate with one edge of the opening for swingingly supporting the unit, said unit having a locking lip operative to displace the resilient margin of the opening from the exterior in the application of the unit and to engage said margin from the interior after application of the unit to provide an abutment to prevent displacement of the unit, the wall of the container at the ends of the resiliently displaceable portion providing slits to receive and guide the walls of the unit during swinging movement, said slits being of a length to permit bodily upward movement of the unit relative to the container to a degree to separate the hinge recess from the edge wall of the opening with which it cooperates, whereby the lower end of the unit may be moved bodily within the container and the unit moved downwardly to arrange the locking lip below the displaceable end portion of the opening to permit withdrawal of the unit.

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