

Dec. 10, 1963

C. E. WICKMAN  
POURING DISPENSER

3,113,706

Filed Nov. 8, 1961

2 Sheets-Sheet 1

Fig. 1.

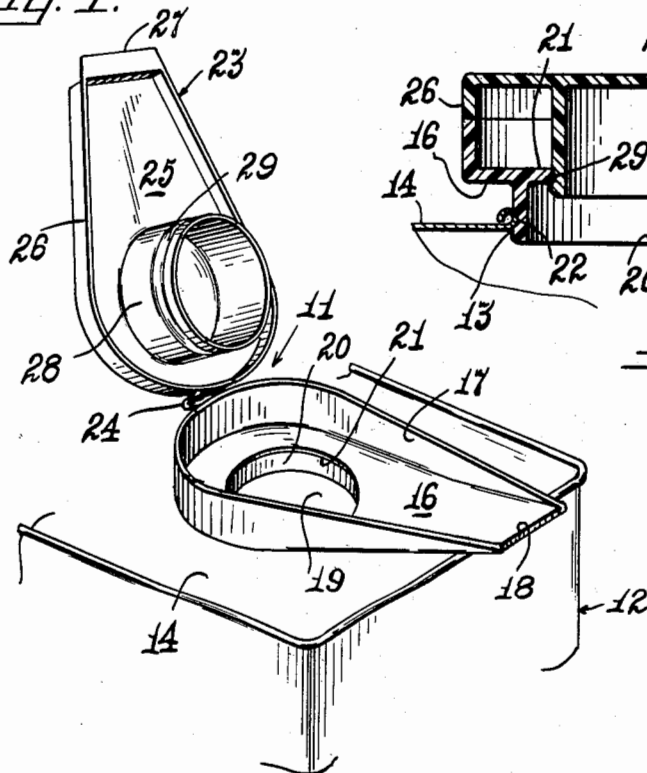


Fig. 3

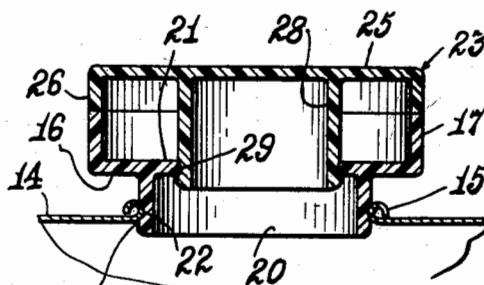
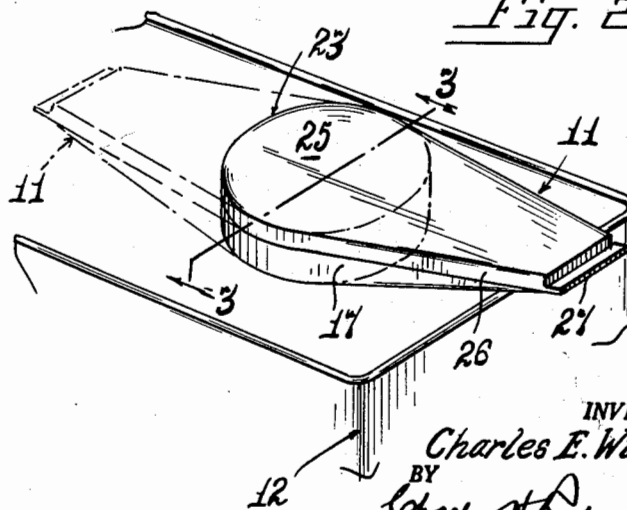


Fig. 2.



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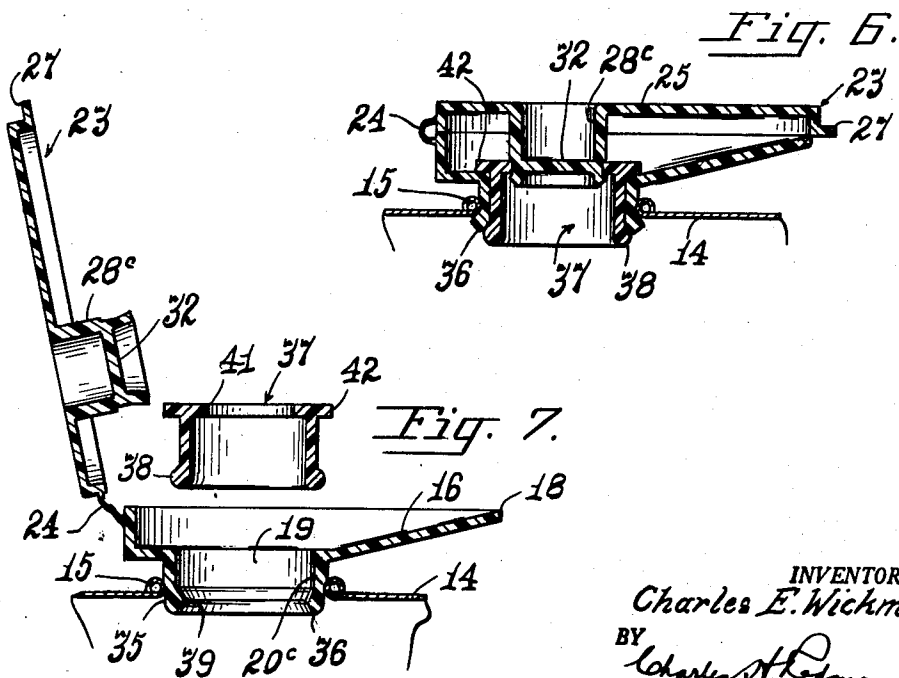
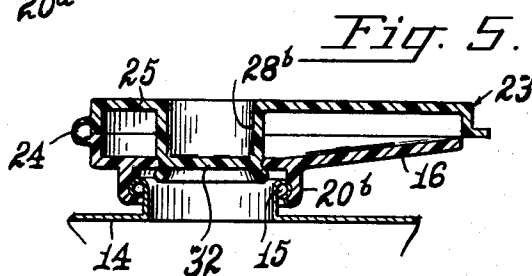
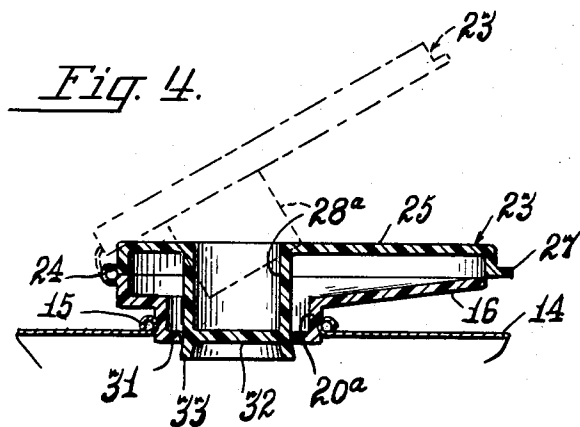
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## POURING DISPENSER

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8 Claims. (Cl. 222-543)

This invention relates to improvements in pouring dispensers and is more particularly concerned with the novel construction and assembly of a one-piece molded spout or trough and cover therefor which can be easily and quickly snapped into place over the pouring opening of a conventional type of container and retained thereon in a manner to permit it to be rotatively located in a plurality of positions.

More particularly, the dispenser of the present invention is made by molding suitable shape-retaining plastic material of a kind that has inherent resiliency so as to be snap-fitted in place either inside or outside the rim of a container opening and it includes a cover that is integrally connected therewith hinged. The mounting is such that the dispenser may be rotatively moved from a position of non-use overlying the body of the container into a position of use with its discharge end extending beyond the peripheral margin of the container.

In general, the dispenser includes a substantially trough-shaped body which has an opening in its bottom wall surrounded by a resiliently-deformable depending circular skirt of a size to be snap-fitted in a leak-proof manner around or inside the rim of the pouring opening in the container. In one of the embodiments herein disclosed, an accessory collar is associated with the skirt for expanding same into tight locking position within the container opening rim so as to prevent its inadvertent removal. The cover is shaped generally to conform to the planar configuration of the trough and it is hingedly connected integrally, as by a resiliently flexible strip, to said trough so as to be swung into open and closed positions. The cover also is formed with a depending collar that is adapted to frictionally engage in the trough opening, or with said collar, for retaining it in closed position and providing a leak-proof closure.

It is, therefore, an object of the invention to provide a novel construction of pouring dispenser of the character disclosed.

Another object is to provide a pouring dispenser fabricated in a novel manner and from resiliently deformable shape-retaining material so as to be readily mounted on or removed from a container.

Another object is to provide a pouring dispenser with novel, resiliently flexible means to mount same on a container in a tight leak-proof manner, easily and quickly.

Another object is to provide a pouring dispenser with a cover constructed in a manner to include novel means to retain the cover in a closed position.

Another object is to provide a pouring dispenser of the character described which is not expensive to manufacture, is easy to install and which is very practical and efficient in use.

With the foregoing and such other objects in view, which will appear as the description proceeds, the invention consists of certain novel features of construction, arrangement and combination of parts hereinafter fully described, illustrated in the accompanying drawings, and

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particularly pointed out in the appended claims, it being understood that various changes in form, proportion, size and minor details of the structure may be made without departing from the spirit of the invention.

Referring to the drawings in which the same characters of reference are employed to identify corresponding parts:

FIG. 1 is a perspective view of one embodiment of the invention, showing the dispenser mounted on a container and with its cover in an open position;

FIG. 2 is a view similar to FIG. 1, showing the cover in closed position and illustrating, in broken lines, the location of the dispenser when in a position of non-use;

FIG. 3 is an enlarged lateral sectional view of the dispenser, taken substantially on line 3-3 of FIG. 2;

FIG. 4 is a transverse sectional view of a modified form of pouring dispenser, showing the cover in closed position in full lines and in an open position in dotted lines;

FIG. 5 is a transverse sectional view of a pouring dispenser embodying other modified features of construction;

FIG. 6 is a transverse sectional view of still another modified form of pouring dispenser construction; and,

FIG. 7 is a view similar to FIG. 6, but showing the pouring dispenser partially assembled on a container.

Referring to the exemplary disclosures in the accompanying drawings, and particularly to the embodiment shown in FIGS. 1-3, the pouring dispenser, generally indicated at 11, is shown mounted in the pouring opening of a container 12. The container may be of any size or shape and it is fabricated of any suitable material such as sheet metal or plastic. The container has a pouring opening 13 in its top wall 14 located preferably closely adjacent to one side or end edge thereof. The pouring opening 13 is provided with a beaded or rolled peripheral flange or rim 15 disposed on the top side thereof, which flange or bead is engaged by the novel pouring dispenser so as to retain the dispenser in place thereon.

The dispenser 11 is fabricated from shape-retaining, resiliently-deformable plastic material and it includes a trough-like body portion having an upwardly inclined bottom wall 16 and an upstanding perimeter flange 17 that surrounds three sides thereof so as to provide a pouring lip 18 on the unflanged end thereof. A circular opening 19 is formed in the bottom wall 16 which is surrounded by an integral depending thin-wall peripheral skirt 20 having an outside diameter slightly larger than the inside diameter of the flange or rim 15 surrounding container opening 13. For a purpose to be explained presently, the opening 19 has an internal flange 21 adjacent to its upper end. The pouring dispenser 11 is mounted on the container by thrusting skirt 20 into the container opening, said skirt being sufficiently flexible to permit such insertion, and it is formed closely adjacent to its lower free edge with an external circumferential channel 22 that receives the rim 15 snugly therein to retain the dispenser in place on the container and provide a leak-proof seal. The mounting is such that the dispenser may be moved pivotally from the full-line position of use shown in FIG. 2, into the broken-line position of non-use also shown in said figure. Such repositioning of the dispenser permits it to be moved into the perimeter outline of container 12 for shipping and storage convenience. Also, the dispenser may be readily removed from the container and reused.

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The pouring dispenser 11 also includes a cover 23 which preferably is integrally connected hingedly to said trough-like body by a thin flexible connecting web 24 which is provided at the end of the dispenser remote from pouring lip 13. The cover also is fabricated from plastic material and is of the same general planar configuration as the trough-like body. It includes a top wall 25 having a depending perimeter flange 26 completely surrounding said wall and which, when the cover is in closed position, has edge to edge abutment with perimeter flange 17 and pouring lip 13 of the body. Preferably, an outwardly extending finger engaging flange 27 is formed on the free forward edge of said cover to facilitate its manual engagement for purposes of moving it into an open position.

The cover 23 also includes a circular flange 28 integral with and depending from the bottom face of its top wall 25 and which is of sufficient length and of a diameter to fit snugly into the circular opening 19. This flange is thin-walled so as to have sufficient resilient distortability radially to permit it to be snap-fitted into said opening 19, a circumferential groove 29 being provided on its outside circumferential surface to receive the free inner peripheral edge of flange 21. Obviously, when the cap is in closed position it is resiliently held by the inter-engagement of groove 29 and flange 21, which engagement affords a leak-proof closure for opening 19.

The pouring dispenser shown in FIG. 4 is substantially like the dispenser shown in FIGS. 1-3 and described hereinabove and like numerals are used to identify corresponding parts. As shown, the resiliently deformable peripheral skirt 20a of the trough-like body is formed at its lower free edge with an internal annular flange 31 and the circular flange 28a on the cover 23 is formed with a bottom reinforcing wall or diaphragm 32 spaced inwardly of its outwardly flared free marginal edge 33 so as to increase resistance to radial compression when said marginal edge 33 is press-fitted into firm frictional engagement with the inner peripheral edge of the internal flange 31 in the peripheral skirt 20a for retaining the cover in its closed position. This engagement also functions to increase the binding between the skirt 20a and the rim 15 engaged thereby.

The FIG. 5 disclosure is somewhat similar to the structure shown in FIGS. 1-3 and like numerals identify corresponding parts. In this instance the peripheral skirt 20b is of a diameter to fit snugly around the outside perimeter of the container rim 15 for retaining the dispenser in place on the container. The depending cover flange 28b preferably has a reinforcing web 32 formed therein.

Referring now to the embodiment shown in FIGS. 6 and 7, the pouring dispenser 11 has a depending peripheral skirt 29c surrounding its opening 19 and which is formed with an external circumferential groove 35 for embracing the inner periphery of rim 15 when the free marginal portion 36 of said skirt is expanded outwardly radially. Such outward radial expansion of the skirt margin is effected by cooperative engagement therewith of a fitting or sleeve 37 which has an external circumference responding substantially to the internal circumference of said skirt 29c. When sleeve 37 is thrust downwardly into the skirt, an external rib 38 formed on the lower free margin of said sleeve coacts with an internal area of reduced diameter, as at 39, in said skirt 29c so as to expand same outwardly and urge the groove 35 into firm leak-proof engagement with the container bead 15 to prevent removal of the pouring dispenser.

The sleeve 37 also has internal and external circumferential flanges 41 and 42 respectively, at its upper extremity, the latter being adapted to seat against bottom wall 16 of the trough-like body to limit downward movement of said sleeve. The internal flange 41 affords means to be engaged frictionally by the depending circular flange 28c on cover 23 for retaining said cover in closed position.

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tion. Preferably, the circular flange 28c has an internal web or diaphragm 32 to resist radial collapse.

It should be quite evident that the pouring dispensers hereinabove described and disclosed in the accompanying drawings are capable of being easily and quickly attached to and removed from a container and, when attached, are held with sufficient firmness to provide leak-proof joints at their points of assembly and, further, that said dispensers may be rotated readily into and out of positions of use and non-use.

As many possible embodiments may be made in the invention, and as many changes might be made in the embodiments above set forth, it is to be understood that all matters hereinbefore set forth or shown in the accompanying drawings are to be interpreted as illustrative and not in a limiting sense.

Having thus described the invention, what is claimed as new and desired to be secured by Letters Patent of the United States is:

1. A pouring dispenser fabricated from shape-retaining resiliently-deformable material comprising a trough-like body having a flow opening therein and a cover, a circular skirt integral with said body and surrounding said opening and depending therefrom, a circumferential groove on the outside circumferential surface of said skirt adjacent to its free peripheral edge, an internal circumferential rib on the inside circumferential surface of said skirt adjacent to said free peripheral edge, a sleeve insertable in said flow opening and engageable with said internal rib for expanding said skirt radially to engage the circumferential groove over the rim of a container opening, and means on said cover engageable with said sleeve to retain the cover in closed position.

2. The pouring dispenser recited in claim 1, in which the sleeve has an internal annular flange and the means on the cover comprises an integral circular resiliently-deformable flange having means engageable with said annular flange to frictionally retain the cap in closed position.

3. A pouring dispenser comprising an elongated shallow body open at its top and having a bottom wall inclined upwardly from one end thereof and terminating at its other end in a pouring lip, said bottom wall having a flow opening adjacent to said one end, a depending skirt surrounding said opening, means in said skirt adapted to engage firmly the rim of a pouring opening in a container on which the dispenser is mounted, a cover for said body hingedly connected integrally to the said one end of the body for movement into open and closed positions, and means on said cover engageable in said flow opening to retain the cover in a closed condition and seal said flow opening.

4. The pouring dispenser recited in claim 3, in which the means on the cover comprises a circular flange depending from its bottom face.

5. The pouring dispenser recited in claim 4, in which the flow opening has an internal annular flange and the circular flange has an external channel engageable with said internal flange.

6. The pouring dispenser recited in claim 3, in which the cover has an end flange to overlie the pouring lip to close the body when the cover is in closed position.

7. A pouring dispenser comprising an elongated shallow body having a bottom wall, said bottom wall having a circular flow opening adjacent to said one end and being inclined upwardly from the plane of said opening and terminating at its free end in an elevated pouring lip, a depending circumferential skirt surrounding said opening, means in said skirt adapted to engage firmly the rim of a circular pouring opening in a container, a cover for said body, and cooperating means on said cover and said circumferential skirt to frictionally retain the cover in a closed condition and seal the flow opening.

8. A pouring dispenser comprising an elongated shallow body having a flow opening near one end and termi-

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nating at its other end in a pouring lip, a depending skirt surrounding said opening, a circumferential groove adjacent to the lower peripheral edge of said skirt adapted to engage the rim of a container opening for retaining the dispenser in place thereover, an internal circumferential flange adjacent to the lower free edge of said skirt, a cover for said body hingedly connected integrally therewith for movement into open and closed positions, a circular flange integral with said cover adapted to extend into the circumferential skirt and engage said internal circumferential flange to retain the cover in closed position and to ex-

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pand the skirt radially into tight engagement with the rim of said opening.

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