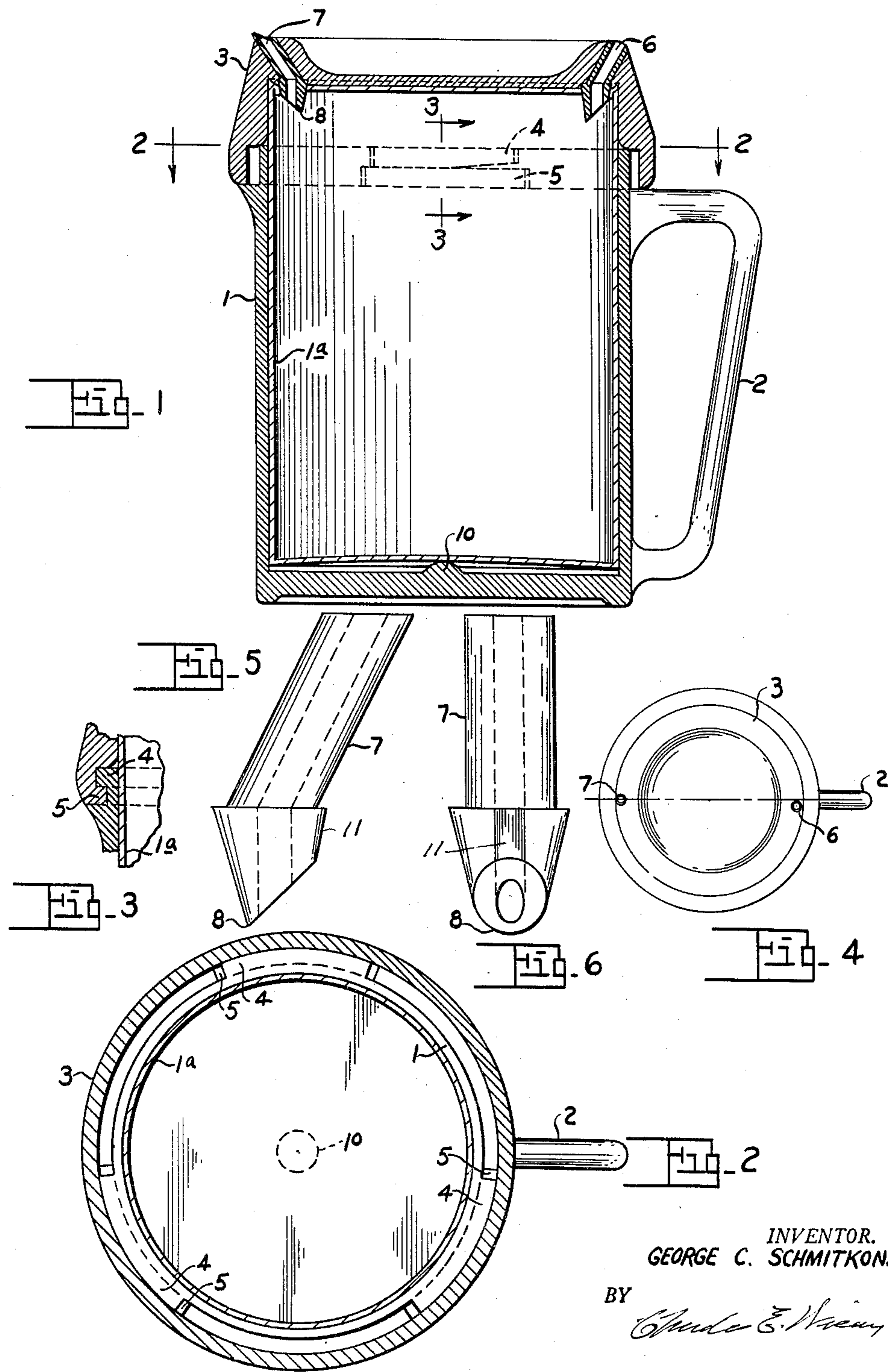


March 6, 1951

G. C. SCHMITKONS  
HOLDER FOR SEALED LIQUID CONTAINER, WITH PUNCTURING  
AND DISPENSING MEANS FOR SAID CONTAINER  
Filed March 26, 1948

2,544,361



INVENTOR.  
GEORGE C. SCHMITKONS.

BY

*Charles E. Veeney*

ATTORNEY.

## UNITED STATES PATENT OFFICE

2,544,361

HOLDER FOR SEALED LIQUID CONTAINER,  
WITH PUNCTURING AND DISPENSING  
MEANS FOR SAID CONTAINER

George C. Schmitkons, Detroit, Mich.

Application March 26, 1948, Serial No. 17,271

6 Claims. (Cl. 222—86)

1

This invention relates to a device for dispensing various materials the object of the invention being to provide a means for dispensing the material from an ordinary container and comprises a body in which the container is positioned and a cap for the said body having a pair of conduits by means of which the end of the container may be pierced and from one of which the contents of the container may be dispensed and the other of which provides for flow of air into the container whereby the contents in the container is under atmospheric pressure as air will flow into the container as the contents are discharged therefrom.

These and other features and objects of the invention are hereinafter more fully described and claimed and a material dispensing apparatus embodying my invention is shown in the accompanying drawing in which—

Fig. 1 is a longitudinal section of the device showing the cap positioned thereon.

Fig. 2 is a section taken on line 2—2 of Fig. 1.

Fig. 3 is a section taken on line 3—3 of Fig. 1.

Fig. 4 is a plan view of the cap on a smaller scale.

Fig. 5 is an enlarged view in section of the outlet conduit.

Fig. 6 is a side elevation of Fig. 5.

The device is particularly useful with tin cans containing a fluid such as condensed milk, fruit juices or other liquid, granular or powdered material and its preferred form comprises a container 1 for the can 1a having a handle 2 on one side of the body and a cover 3 for closing the open end of the container.

The body at its open end is provided with a series of flanges 4 which are in peripherally spaced relation and the cover has a series of flanges 5 similarly spaced so that, when the cover 3 is in the position shown in Fig. 1, the flanges 5 of the cap, by rotation thereof, engage beneath the flanges 4 of the body, as shown in Fig. 2, thereby holding the cap tightly in position on the body.

The cover 3 has an angularly disposed conduit 6 positioned thereon on one side and a similar conduit 7 on the opposite side. The conduit 6, through which air flows in discharging liquid, granular or powdered material from the can, is of a diameter to provide free flow of air into the can. The conduits 6 and 7 at the inner end are cut at an angle as shown to provide a sharp edge 8 that may pierce a container by pressure on the cap by the user's hand. The conduit 6 is positioned to one side of a diametrical line passing

2

through the conduit 7. By this arrangement the can top is first punctured by means of the cap. The cap is then removed and turned 180 degrees and again forced onto the can whereby the air inlet 6 is enlarged to insure free flow of contents from the can when the material is discharged directly from the container.

Furthermore the portion of the conduits entering the container are cone shaped thereby insuring a tight fit in the container and prevents leakage of contents thereabout when being discharged from the container.

In use the can 1a is first introduced into the container 1 and the cap 3 is placed on the open end of the body. In so doing the tapered ends of the conduits 6 and 7 cut through the upper end of the container 8 and, due to the taper of the inner end of the said conduits, the openings in the container are in tight peripheral contact with the conduits and thus prevent an escape of fluid into the cap member. The upper surface of the bottom wall of the container is provided with a central lug 10 to maintain the bottom of the can from surface contact with the inner face of the bottom wall. Otherwise the bottom of the can might stick to the bottom of the container.

Preferably the discharge end of the conduit 7 is cut at an angle less than a right angle as shown to provide free flow of material from the container and eliminates dripping.

Furthermore the conical end of each of the conduits have the outer side thereof formed with a plane surface 11, as indicated in Fig. 6. By such structure the aperture formed thereby makes a perfect seal around the piercing end of the conduit and permits a freer flow of liquid from the can than would be the case if the aperture was round.

The device may be used with containers for powdered or granular material as well as liquid and preferably the conduit 6 is larger in diameter than the conduit 7 to provide free flow of air into the container as material is discharged through the conduit 7.

It is believed obvious from the foregoing description that the various objects and features of the invention are attained by the structural character and relationship of parts as hereinbefore described and shown in the drawing and that in pouring the contents from the container no material may flow into the cap member and thence into the container 1.

Having thus briefly described my invention, its utility and mode of operation, what I claim and

desire to secure by Letters Patent of the United States is—

1. A device for the dispensing of material from a container formed of a puncturable material comprising a body having an open end and a handle on one side thereof, the open end of the body having a series of peripherally spaced flanges, a cover therefor having a similar series of flanges so arranged that, in placing the cap on the body, the flanges of the cap pass between the flanges of the body to a position beneath the body flanges whereby, in relative rotation of the cap and body, the cap is held in tight contact with the end of the body, the cap having a pair of conduits each open at one end to atmosphere, the opposite end of each conduit being so shaped that, in forcing the cap onto the body, the said conduits puncture the end of the container and close the apertures formed therein, the conduit adjacent the handle being at one side of a diametrical line passing through the other conduit the arrangement providing that, when the container is tilted to pouring position, air may flow into the container through one of the conduits as the contents are discharged through the other conduit.

2. A device for dispensing of material from a container formed of a puncturable material comprising a body having an open end, the open end of the body having a series of peripherally spaced inwardly or outwardly extending flanges, a cover therefor having a similar series of flanges so arranged that, in placing the cap on the body, the flanges of the cap pass between the flanges of the body to a position beneath the flanges whereby, in relative rotation of the cap and body, the cap is held in tight contact with the end of the body, the cap having a pair of conduits each open at one end to atmosphere, the opposite end of each conduit being so shaped that, in forcing the cap onto the body, the said conduits puncture the end of the container and closes the apertures formed therein, the conduit adjacent the handle being at one side of a diametrical line passing through the other conduit the arrangement providing that, when the container is tilted to pouring position, air may flow into the container through one of the conduits as the contents is discharged through the other conduit.

3. A device for the dispensing of liquids from a container formed of a puncturable material comprising a body having an open end and a handle on one side thereof, the open end of the body having a series of peripherally spaced inwardly or outwardly extending flanges, a cover therefor having an opposite series of flanges so arranged that, in placing the cap on the body, the flanges of the cap pass between the flanges of the body to a position beneath the flanges whereby, in relative rotation of the cap and body, the cap is held in tight contact with the end of the body, the cap having a pair of conduits each open at one end to atmosphere, the opposite end of each conduit being shaped to provide a sharp point whereby, in forcing the cap onto the body, the said conduits puncture the end of the container and closes the apertures formed therein, the conduit adjacent the handle being at one side of a diametrical line passing through the other conduit the arrangement providing that, when the can is tilted to pouring position, air may flow into the can through one of the conduits as the contents discharge through the other conduit.

4. A device for the dispensing of liquid, powdered or granular material from a container formed of a puncturable material comprising a body having an open end and a handle on one side, the open end of the cover and the body respectively having a means whereby rotation of one of the members relative to the other in one direction holds the cap in tight contact with the body, and rotation of the cap in the opposite direction permits the cap to be removed, the cap having a pair of conduits each opening through the cap, the conduit on the handle side being at one side of a diametrical line passing through the other conduit the conduit on the opposite side to maintain atmospheric pressure on the material in the container during a pouring operation.

5. A device for the dispensing of material from a container formed of a puncturable material comprising a body having an open end and a handle on one side, the open end of the cover and the body respectively having a means whereby rotation of one of the members relative to the other in one direction holds the cap in tight contact with the body, and rotation of the cap in the opposite direction permits the cap to be removed, the cap having a pair of conduits each open through the respective opposite sides of the cap, the conduit on the handle side being at one side of a diametrical line passing through the conduit on the opposite side to maintain atmospheric pressure in the container during a pouring operation, and means for supporting the container from longitudinal displacement in the body.

6. A device for the dispensing of material from a container formed of a puncturable material comprising a cover having a pair of conduits each open at one end to atmosphere, the opposite end of each conduit being cone shaped and having a flat surface on one side whereby, in forcing the cap on to the container, the said conduits puncturing the container thereby closing the apertures formed therein, the conduit on one side being peripherally spaced from a diametrical line passing through the other conduit, whereby after first puncturing the end of the container, the cover may be removed and rotated a half turn and then again placing the cover on the can to thereby enlarge the aperture on one side substantially as shown and described.

GEORGE C. SCHMITKONS.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
Re. 14,268	Day	Mar. 13, 1917
64,437	Mee	May 7, 1867
438,475	Green	Oct. 14, 1890
1,072,588	Duncan	Sept. 9, 1913
1,149,840	Lange	Aug. 10, 1915
1,465,617	Shatz	Aug. 21, 1923
1,557,861	Moreida	Oct. 20, 1925
1,745,456	Shuler	Feb. 4, 1930
1,903,464	Konanz	Apr. 11, 1933
1,952,840	Claus et al.	Mar. 27, 1934
2,033,151	Ramsey	Mar. 10, 1936
2,040,087	Hackl	May 12, 1936
2,136,492	Creveling	Nov. 15, 1938
2,304,457	Hagan	Dec. 8, 1942