

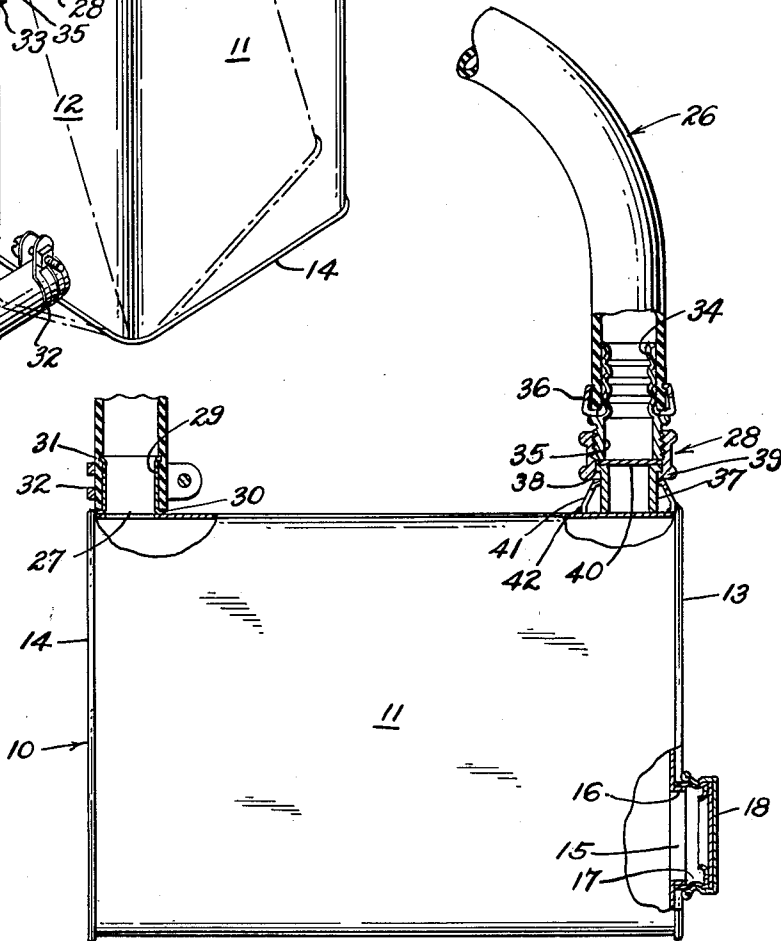
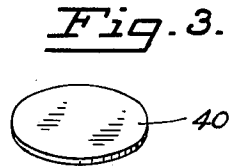
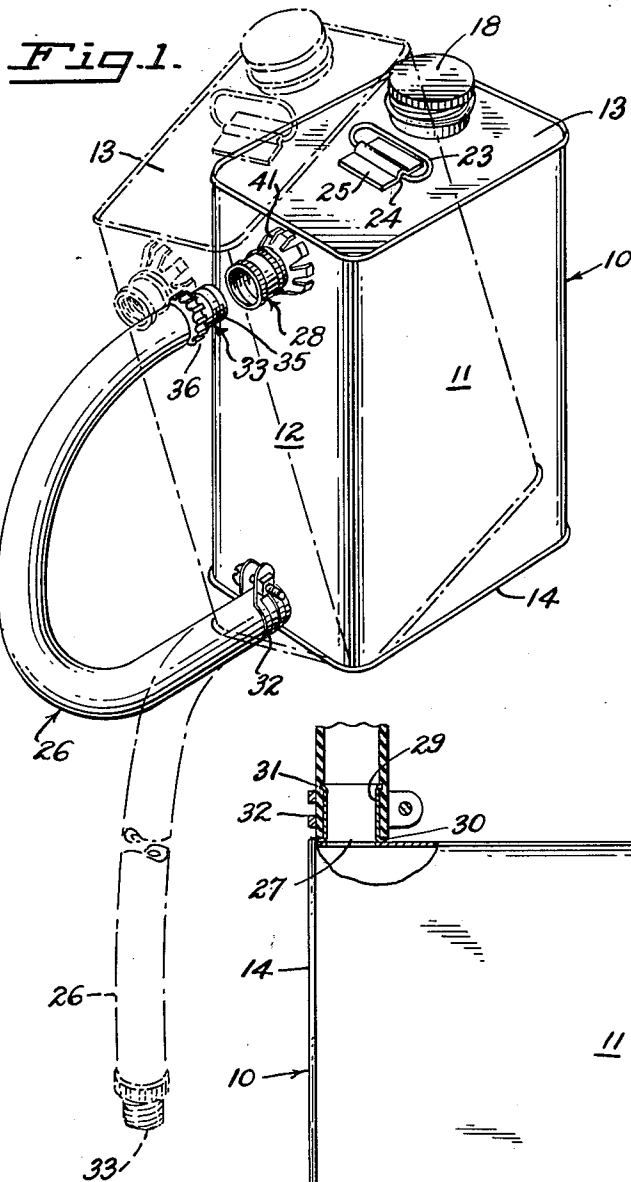
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PORTABLE CONTAINER HAVING CLOSURE DISCHARGE HOSE

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PORTABLE CONTAINER HAVING CLOSURE
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6 Claims. (Cl. 222-159)

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This invention relates to a portable container and closable flexible discharge hose, and relates more particularly to such containers having a connected flexible discharge hose which, when not employed for emptying the container, may have its discharge end releasably connected to the container whereby the discharge end of the hose is closed, and the hose thereby provides a convenient handle or shoulder strap for transporting the container.

While the invention may have advantageous use in many environments, it has particularly advantageous uses in the field of present automotive vehicles for pouring liquids from a portable container to a receiving vent which is difficult of access. Examples of such advantageous use may be present in such automotive vehicles when it is necessary to supply liquids such as oil, gasoline or even water to receiving vents which are obstructed or made difficult of access by proximity of some other member of the vehicle body or motor, such as a receiving vent of a radiator under a known type of motor hood which lifts from a longitudinal side rather than from the front adjacent the radiator cap, or where a receiving vent of a crank case for lubricating oil is closely crowded adjacent other parts of the motor unit, and particularly when the motor is hot. Another example of advantageous employment of the invention is for holding a reserve supply of motor fuel for discharge into the receiving vent of the fuel tank of an automobile. In all of these cited examples it is impractical to tilt a container and pour liquid from a filler opening at its top, because frequently there is insufficient space for such tilting, and secondly, regardless of a limitation of space, the liquid begins to flow from a top opening of a tilted container before the container is sufficiently tilted to discharge the liquid directly into the receiving vent.

The invention therefore provides a container which may be of any usual conventional type, having at its top end the usual filling opening provided with the conventional threaded nipple and a removable threaded cap. Such container top is usually provided with a wire bail pivotally mounted for use as a lifting handle, or to fold flat against the top of the container. Adjacent its opposite end or base the container is provided with a discharge opening and a suitable tubular nipple to which one end of a flexible hose may be fixedly connected in communication with the container. The opposite end of the flexible hose is free of fixed connection to the container and is adapted for manipulation to insert it into a

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receiving vent of any tank or vessel into which the contents of the container is to be poured. Said free end of the hose has affixed thereto a threaded male hose coupling which serves as a discharge nozzle. Closely adjacent the top end of the container, and on the same side wall with the previously mentioned fixed hose connection or nipple, there is mounted a threaded complemental female hose coupling which is closed to communication with the container, and is packed with a suitable non-leak disc gasket which completely closes the discharge end of the hose and seals against leakage or drip therefrom when the two hose coupling members are relatively tightly connected by their threaded engagement. When the hose is so connected at both its ends it may also serve as a flexible handle or shoulder strap by which the container may be carried with its longitudinal dimension parallel to the ground, instead of by the wire bail at the top end which is likely to cut into the hands of the porter, since frequently these auxiliary supply containers may have to be carried considerable distances or may be of relatively large size. It is also contemplated that the hose may be of transparent or translucent plastic, whereby the hose may serve as a calibrated gauge to indicate the quantity of liquid in the container when the container is held with its top upward in its normal position for discharge through the hose, and before the discharge end of the hose is disconnected from the female coupling.

One form in which the invention may be exemplified is described herein and illustrated in the accompanying drawing in which:

Fig. 1 is a perspective view of the container, disposed vertically and showing in broken lines a position of the container and hose at a discharging position.

Fig. 2 is a side view of the container, disposed horizontally, portions thereof being in section.

Fig. 3 is a perspective view of a circular gasket for seating in a coupling member.

Referring to the drawings in which like reference characters indicate corresponding parts in the several views, 10 indicates generally the container which in itself is conventional, preferably of an elongated rectangular prism shape which is elongated in direction from top to bottom and of greater transverse width at its planar side walls 11 than the breadth of its lateral walls 12, whereby the top 13 and the base or bottom 14 are oblong. The top 13 has a circular filling opening 15 adjacently spaced from a corner thereof, the edge of the opening being upset to pro-

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vide a flange 16 to which is soldered a threaded nipple 17 for receiving a removable complementally threaded closure cap 18.

Centrally of the top 13 is a suitable wire bail 23 of well known bent wire type having its opposite ends pivotally engaged in end openings of a channelled plate 24, having wings 25 soldered to the can top.

The substance of the inventive feature of the invention is the provision with any suitable container, such as previously described, of a flexible discharge hose generally indicated 26, of a convenient length to extend in an arcuate bow from a discharge opening adjacent the base to a releasable blank or closed connection adjacent the top of the container. As herein exemplified the hose 26 overlies one of the lateral breadth side walls of the container and is tightly connected at one of its ends to communicate with a discharge opening 27 in said wall adjacent the base of the container, and extending therefrom to a blank or closed releasable connection means 28 mounted on said wall adjacent the top of the container, for purposes to be further set forth.

The tight connection at opening 27 comprises a stub tube 29 flanged at its inner end as at 30 and soldered to the wall of the container. The tube 29 extends outwardly from the container wall sufficiently to provide a smooth nipple having at said outer end an outwardly flanged shoulder 31. An end of the hose is slid upon this nipple and is clamped thereon rearwardly of shoulder 31 by clamping strap 32.

The opposite free end of the hose is the discharge end, and is provided with a male hose coupling 33 of any suitable type comprising a shank 34 for inserting in the hose end, its opposite end 35 being threaded, and having therebetween a clamp or clincher ring 36 of the spider type, the legs of which may be clamped into the hose body whereby the male coupling is fixed to the hose end.

The closed releasable connection means 28 adjacent the top of the container comprises a female coupling which is secured to the can wall and is also conveniently of a conventional type suitably complementary to the male coupling member, except that it is a blind or closed coupling member not having communication with the interior of the container. As illustrated, it comprises a tubular stub shank portion 37 having one of its ends resting against the wall of the container. The opposite end of the shank 37 is flanged radially outwardly as at 38 and thereby rotatably mounts one end of a female socket coupling 39 which is threaded to receive and secure the male coupling 33 therein. At the bottom of the socket of the female coupling and overlying the flange 38 is a disc packing gasket 40 of a diameter substantially similar to the inner diameter of the socket coupling 39 so as to have snug fit therein and close the opening into the tubular shank 37, and also seal the discharge or nozzle end of the male coupling when the male coupling 33 is securely seated by tightly intercoupling the coupling members. The female coupling is also provided with a ring 41 of a spider type, the legs of which are inclined and spread radially outwardly and soldered to the container wall, as at 42.

It is contemplated that the hose member 26 may be a transparent or translucent flexible tube so that it may be employed as a gauge to indicate the quantity of liquid in the container when its discharge end is connected to the coupling 28.

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In operation, the container 11 may be filled by removal of cap 18 while the container is seated on its base or manually held by bail 23. At times of filling and when the container is being employed merely for storage or as a reserve of liquid, the complementary coupling members 28—33 are tightly interengaged, and the discharge end of the hose is tightly closed by the gasket 40. When so connected the hose may serve as a flexible handle of relatively large diameter for transport of the container, and if the container be of relatively large capacity, say 3 to 5 gallons, the hose member may be slipped over the porter's shoulder to transport the container.

When the opportunity arises for use of the liquid contents of the container, the hose coupling members 28, 33 are disconnected and the free end of the hose inserted into the receiving vent of the chamber or tank into which the liquid is to be flowed. Until the free end of the hose is completely within such vent it is desirable to maintain the elevation of the container below the level of the vent, though when that is not practical a finger may be held over the discharge nozzle until it is positioned in the vent. Having inserted the free or nozzle end of the hose in the vent, the container may be elevated by the usual wire handle bail 23 so that liquid may flow from the container through the hose and into the vent. When lifted by the wire bail 23 at the top of the container the pivotal connection 24 of the bail 23 permits the longitudinal axis of the container to tilt off center responsive to the weight of the hose at one side wall of the container and automatically provides an inclined draining position of the bottom of the container to completely empty the container without having to manually tilt it, as indicated by dotted lines in Fig. 1. Incidentally, rate of flow from the container may be substantially controlled by opening the cap member by degrees to permit air to enter the container and forestall a vacuum in the container above the level of the liquid.

Having described the invention, I claim:

1. A container device having a substantially rectangular container body elongated from top to bottom and having planar side walls of greater width than the lateral side walls and provided at its top wall with a threaded filling opening and a threaded removable cap therefor, said container having a discharge opening adjacent the base and centrally disposed in one lateral side wall, a flexible discharge hose tightly mounted at said basal opening in communication with the container, the opposite discharge end of the hose being free and having mounted thereto a threaded hose coupling member, and a complementally threaded hose coupling member fixedly connected to the exterior of said lateral side wall of the container centrally of the width thereof and adjacent the top of the container, one of said hose coupling members being rotatably mounted and adapted to receive and releasably and securely hold the other of said coupling members, said side wall coupling adjacent the top having therein a closure gasket which is adapted for closing the discharge end of the hose when the coupling at the free end of the hose is connected to said complementary side wall coupling adjacent the top.

2. A container device having the elements of claim 1 and in which the hose member is transparent.

3. A container device having the elements of claim 1 and in which the hose member is of a

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length to extend in an arcuate bow between the basal discharge opening and the coupling adjacent the top of the container.

4. A container apparatus which includes a substantially rectangular container body elongated from top to bottom and having greater width at its planar side walls than the breadth of its lateral side walls providing an oblong top and bottom, said container having at its top a centrally disposed pivotally mounted bail and having adjacent one end of its oblong top a threaded filling opening and a threaded removable closure cap therefor, said container having adjacent its base a discharge opening centrally disposed in one lateral breadth side wall, a flexible discharge hose tightly mounted at said basal opening in communication with the container, the opposite end of the hose being free and having mounted thereto a male threaded hose coupling; and a complementary female hose coupling fixedly connected to the exterior of the same lateral side wall of the container adjacent the top thereof and adapted to receive and releasably and securely hold the coupling at the free end of the hose, said female coupling having an axially rotatable threaded collar member providing a socket for engaging the threaded male coupling and said collar having in the recess of the socket mem-

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ber a closure gasket which is adapted for closing the discharge end of the hose when the coupling at the free end of the hose is connected to said complementary coupling.

5. A container apparatus having the elements of claim 4 and in which the hose member is transparent sufficiently so that the liquid level may be visible therethrough.

6. A container apparatus having the elements of claim 4 and in which the hose member is of a length to extend in an arcuate bow between the basal discharge opening and said complementary female coupling member adjacent the top of the container.

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REFERENCES CITED

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

UNITED STATES PATENTS

Number	Name	Date
145,999	Hallock	Dec. 30, 1873
1,159,518	Maul	Nov. 9, 1915
1,363,656	Jonassen	Dec. 28, 1920
1,411,812	Smith	Apr. 4, 1922
1,544,503	Thomson	June 30, 1925
2,222,267	Schnabel	Nov. 19, 1940