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Paz

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[54] **NON-SPILL CUP**

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[51] **Int. Cl.** **B65d 25/40,** B65d 47/20

[58] **Field of Search** 220/90.2, 90.4, 90.6; 215/74, 79; 222/484, 482, 481

[56] **References Cited**

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[57] **ABSTRACT**

A drinking vessel from which the contents will not spill out when the vessel is dropped and yet which permits a person to drink therefrom, the device comprising a cup with a removable cap placed thereupon, the cap including a pouring spout and an air vent for intake of air, and a manually depressable plunger which supports a closure for sealing off the inner ends of the spout and the air vent.

1 Claim, 2 Drawing Figures

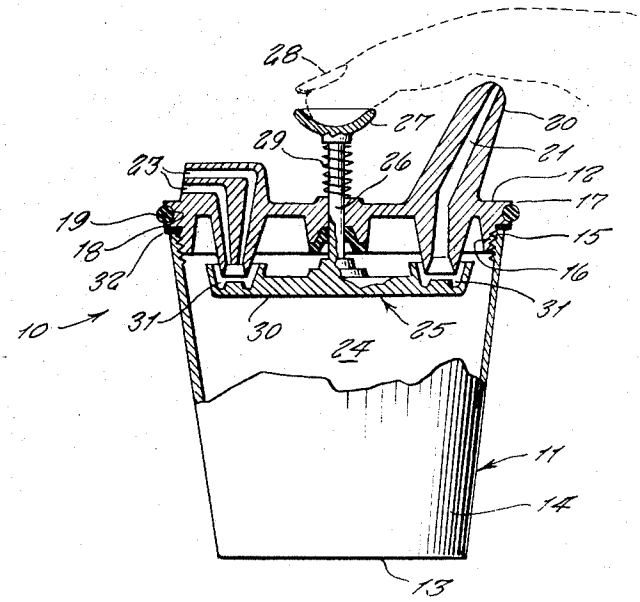
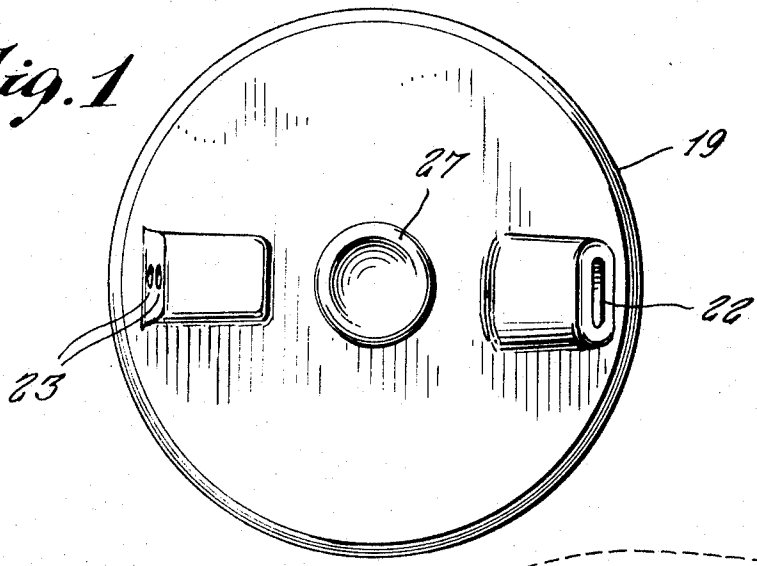


Fig. 1


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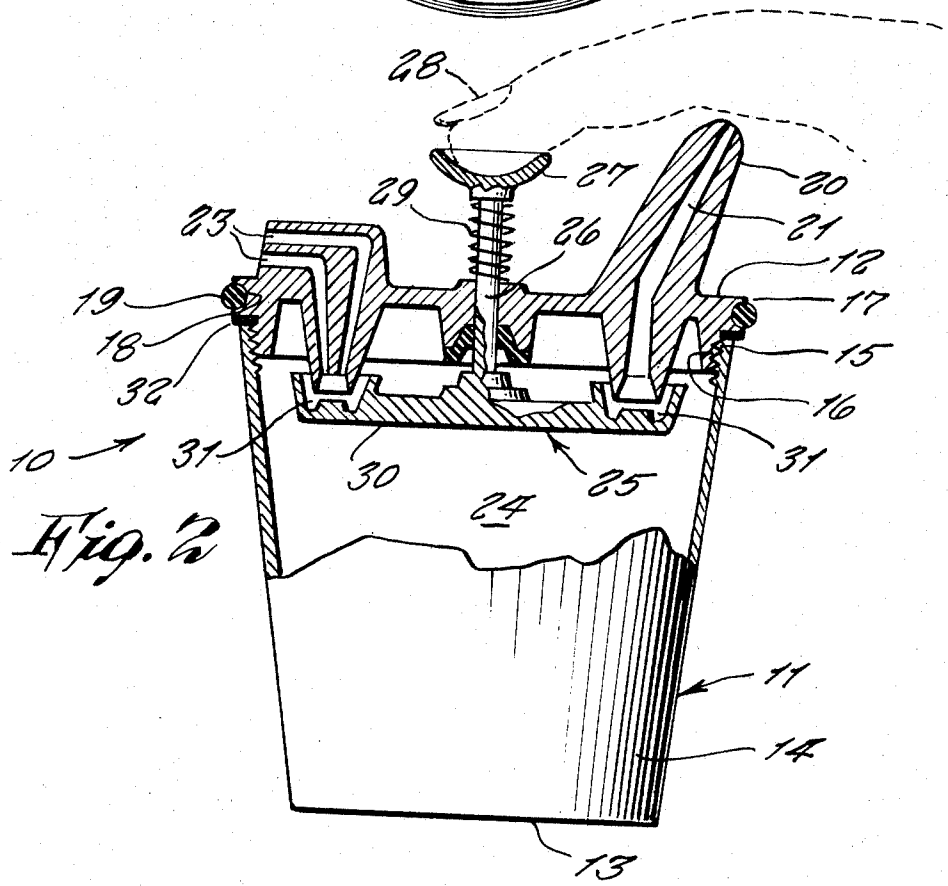

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Fig. 2

NON-SPILL CUP

This invention relates generally to drinking vessels.

A principal object of the present invention is to provide a drinking vessel which permits a person to drink directly therefrom but which includes self-contained means whereby the liquid content from within the cup will not spill out in case the cup falls upon a floor or the ground.

Another object of the present invention is to provide a non-spill cup wherein the interior thereof is normally sealed but which can be made for a person to drink directly therefrom when the person depresses a plunger for releasing an interior closure from the inner end of a drinking spout formed on a cover of the cup.

A further object of the present invention is to provide a non-spill cup wherein the plunger and closure additionally seal the inner end of an air vent provided on the cup cover and which is normally used for air entering the interior of the cup so to displace the liquid being dispensed therefrom.

Other objects of the present invention are to provide a non-spill cup which is siple in design, inexpensive to manufacture, rugged in construction, easy to use and efficient in operation.

These and other objects will be readily evident upon a study of the following specification and the accompanying drawing wherein:

FIG. 1 is a top plan view of the present invention, and

FIG. 2 is a side elevation view thereof shown partly in cross section.

Referring now to the drawing in detail, the reference numeral **10** represents a non-spill cup according to the present invention wherein a cup vessel **11** which is normally closed by means of a top cover **12.**

The cup **11** includes a bottom wall **13** and a cylindrical or conical side wall **14** which at the upper end thereof is provided with an internal thread **15** for engagement with an external thread **16** around the cap or cover **12.**

The peripheral edge **17** of the cover is provided with an annular groove **18** within which there is fitted a rubber ring **19** and which serve as a shock absorber in case the cup is dropped and strikes there against when landing upon a floor or other surface.

The cover includes an upwardly extending spout **20** having a central opening **21** therethrough which at its lower end is circular in cross-section but which at its upper end is slot configurated as shown at **22** so to be conveniently placed between a person's lips when drinking therefrom.

Additionally the cover **12** is provided with an air return vent **23** which permits air to enter the interior chamber **24** of the cup during a drinking action so to replace a liquid being poured outwardly therefrom .

A mechanism **25** normally seals the inner ends of the spout opening and the air return vent opening so that when the cup is tipped over no liquid will be accidently dispensed therefrom.

The mechanism **25** includes a central plunger **26** extending through the cover **12,** the upper end of the plunger being provided with a dished knob or button **27** against which a person may place his finger **28** for depressing the same.

As shown in FIG. **2,** a rubber gasket **32** is fitted all around between the cup **11** and the top cover **12.**

A compression coil spring **29** is fitted around the plunger and located between the knob and the upper end of the cover **12.** The lower end of the plunger is secured fixedly to a closure or flat piece **30** which at opposite ends is provided with a pocket or seat **31** within which the lower ends of the spout and the air vent are receivable so to normally seal these off.

In operative use, in order to drink the contents within the cup, a person simply tilts the cup over by placing the spout **20** between his lips. He then depresses the plunger **26** by placing his finger **28** against the knob **27** and pushing the same inwardly so as to cause the closure to move away from the inner ends of the spout and air vent openings, thus permitting the liquid to be moved outwardly of the cup and the space within the cup being replaced by air moving inwardly through the air vent **23.**

In case the cup is accidently dropped, the compression spring **29** retains the closure in a sealed position against the inner end of the spout and air vent openings thereby preventing loss of the liquid.

What I now claim is:

1. In a non-spill cup, the combination of a cup vessel and a closure cover, said cover having self-contained means to permit a person to drink the contents of said cup vessel, and also having self-contained means to prevent the liquid content within said cup to be spilled when said cup is accidentally dropped and struck against a floor or ground, said cup comprising a container including a bottom wall and side wall, the upper end of said side wall having an internal thread for engagement with an external thread of said cover removably secured thereto, said cover being provided with an upwardly extending spout with a central opening therethrough, said cover additionally including an air return vent extending therethrough, said spout opening being of larger capacity cross section than said air return vent, said cover including a closure mechanism for closing the inner ends of said spout and said air vent, said closure mechanism comprising a central plunger extending through said cover, the upper end of said plunger having a knob secured thereto, a compression coil spring around said plunger located between the lower end of said knob and the upper side of said cover, the lower end of said plunger being integral with a closure member which at its opposite ends is provided with a seat into which a lower end of said spout and said air vent are receivable so to seal off the lower ends of said spout and said air vent, said spout opening having a wide outlet, and said air vent having a plurality of individual outlets.

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