

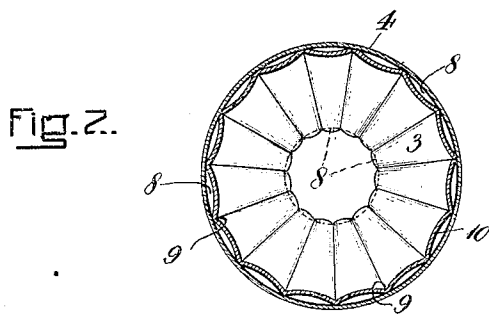
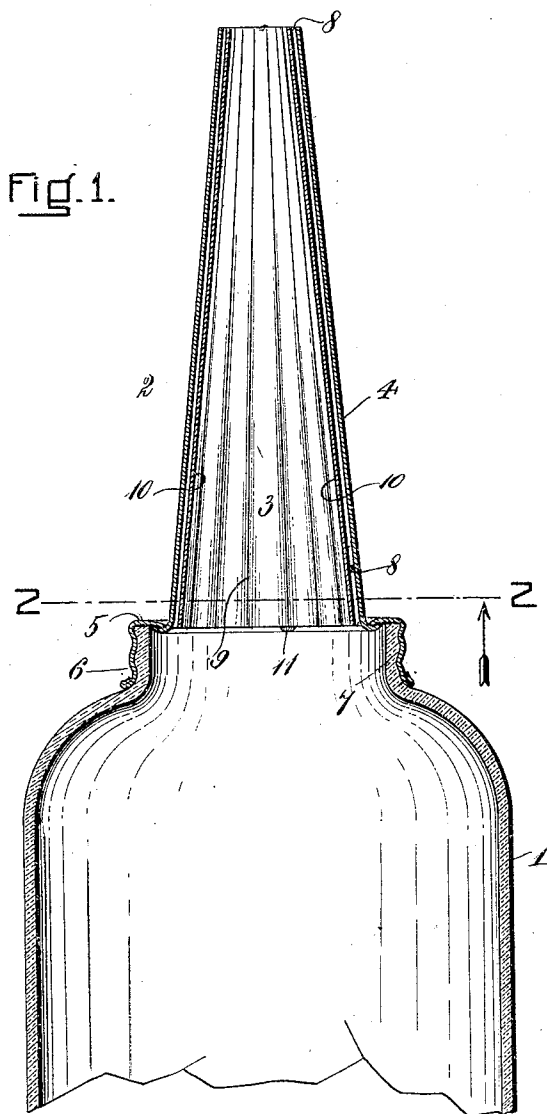
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POUR-OUT NOZZLE

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POUR-OUT NOZZLE

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The invention relates to an improvement in pour-out nozzles for bottles or other fluid containers.

The object of the invention is to provide a structurally simple type of pour-out with provision made for entry of air in order to obtain a free discharge of the fluid content of the bottle or container when poured, and especially to make such provision for entry of air that air will freely enter irrespective of the turned position of the bottle or container during the pouring operation.

The invention can best be seen and understood by reference to the drawings in which—
Figure 1 is a cross vertical section of a portion of the body of a bottle with pour-out embodying the invention.

Fig. 2 is a section on the line 2—2 of Fig. 1. Referring to the drawings:—

1 represents the bottle and 2 the pour-out attached to the bottle. The pour-out comprises inner and outer shells 3 and 4, respectively, both preferably frusto-conical in shape, and one fitting snugly within the other. The outer shell 4 at its bottom is provided with an out-turned flange 5 from which depends a skirt 6 which fastens onto the neck 7 of the bottle. The fastening is preferably secured by forming the skirt with a thread by which the attachment to the neck of the bottle is secured.

The inner and outer shells 3 and 4, having the same general form and one fitting within the other as aforesaid, are relatively so formed and arranged as to provide a plurality of air passages 8 between them which collectively extend entirely around the nozzle, and each of which air passages leads from the outer end of the nozzle to the inner end thereof and interior of the bottle or container. To this end the outer shell 4 is preferably made to present a smooth inner and outer surface while the inner shell 3 is made corrugated by alternate ridges 9 and grooves 10 running lengthwise the shell, thereby imparting to the inner shell a longitudinally fluted effect. With the inner shell of the nozzle fitting snugly within the outer shell the ridges 9 on the inner shell will have bearing against the interior surface of the outer

shell, while the grooves 10 of the inner shell will lie removed from said surface, thereby providing the series of air passages 8 extending all around the nozzle between the two shells and running from the outer end of the nozzle to the inner end thereof and chamber of the bottle or container. The two shells may be of any suitable material and formed in any manner suitable to obtain the objective result above outlined. In practice the shells are made of tin and the corrugations on the inner shell are formed by bending the metal. The inner shell will hold within the outer shell by friction, but the better practice is to positively secure the inner shell to the outer shell by drops of solder 11 between the two shells. The shells may be made of relatively light metal inasmuch as the corrugated inner shell acts to reinforce the outer shell.

With a pour-out nozzle thus formed the interior shell of the nozzle is that portion thereof through which the liquid content of the bottle or container is poured or dispensed. The outer shell of the nozzle performs a triple function: It carries the inner shell; it co-operates with the inner shell in the formation of the air passages; and it provides an attaching means for the nozzle to the bottle or container. The air passages thus provided, extending as they do all around the nozzle, will permit of a free and proper entry of air irrespective of the turned position of the bottle or container for the entry to some one or more of the air passages will lie on the top side of the nozzle whatever its turned position may be.

Having thus fully described my invention, I claim and desire to secure by Letters Patent of the United States:—

1. A pour-out nozzle comprising inner and outer shells, said shells being formed and arranged whereby they will co-operate with one another to form a plurality of air passages between them, each of said air passages extending from the outer end of the nozzle to the inner end thereof.

2. A pour-out nozzle comprising inner and outer shells, said shells being formed and arranged whereby they will co-operate with one another to form air passages between

them located on all sides of the nozzle, each of said air passages extending from the outer end of the nozzle to the inner end thereof.

3. A pour-out nozzle for liquids comprising an outer shell and an inner shell fitting within the outer shell, one of said shells being corrugated whereby said shells, one fitting within the other as aforesaid, will co-operate with one another to provide for an entry of air through the nozzle between the two shells.

4. A pour-out nozzle comprising an outer shell provided with attaching means, and an inner shell borne by the outer shell, said shells being formed and arranged whereby they will co-operate with one another to form air passages between them located on all sides of the nozzle, each of said air passages extending from the outer end of the nozzle to the inner end thereof.

5. A pour-out nozzle comprising an outer shell provided with attaching means, and an inner shell fitting within the outer shell and borne by it, one of said shells being provided with alternate grooves and ridges whereby said shells fitting within one another as aforesaid will co-operate with one another to form a plurality of air passages, each of said passages extending from the outer end of the nozzle to the inner end thereof, and which air passages collectively extend around the nozzle.

6. A pour-out nozzle comprising an outer shell provided with attaching means, and an inner shell fitting within the outer shell and borne by it, said inner shell being corrugated to form alternate ridges and grooves whereby the inner shell fitting within the outer shell as aforesaid will co-operate therewith to form a series of air passages between the two shells, each of said air passages extending from the outer end of the nozzle to the inner end thereof, and which air passages collectively extend around the nozzle.

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