Nov. 24, 1936. J. M. WHEATON 2,061,685

CLOSURE

Filed March 15, 1935

Fig-1-

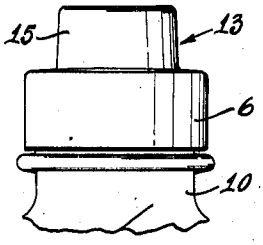
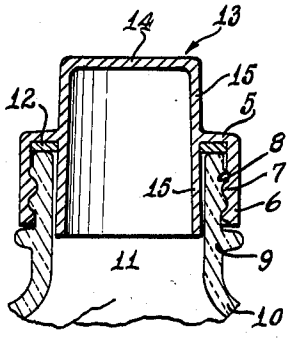


Fig-2-



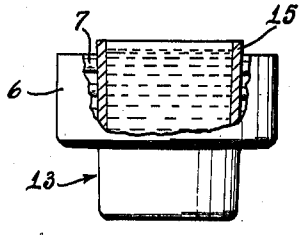


Fig-4-

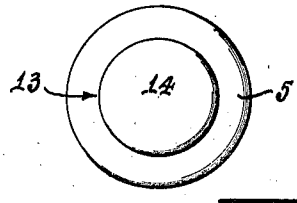


Fig-3-

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Patented Nov. 24, 1936 2,061,685

UNITED STATES PATENT OFFICE

2,061,685

CLOSURE

Jack M. Wheaton, Toledo, Ohio, assignor to Owens-Illinois Glass Company, a corporation of Ohio

Application March 15, 1935, Serial No. 11,268

1 Claim. (Cl. 221—147)

The present invention relates to improvements in closures for bottles and jars and particularly to that type formed of a phenolic condensation compound or synthetic resin and including a threaded attaching flange designed for holding engagement with exterior threads or lugs on the container.

In the production of molded closures, it has been discovered that the embodiment therein of a measuring cup of any appreciable capacity, necessitates forming a portion of the cup outside of the closure, that is, not entirely within the confines of the attaching flange as is customary. This is necessary owing to the impracticability of constructing and impossibility of using a mold or die in which the annular channel for shaping the wall of the measuring cup is of a depth to form a wall of the necessary dimensions entirely beneath the top portion of the closure.

An outstanding feature of the present invention is the provision of a novel and practical means for producing a cap or closure including as an integral part thereof, a measuring cup which is designed primarily for measuring the contents of the container as they are dispensed for use. To this end the measuring cup is disposed partly within and partly without the closure proper. As a result, the article may be produced satisfactorily on a commercial basis.

Other objects will be in part apparent and in part pointed out hereinafter.

In the drawing:

Fig. 1 is a side elevational view of the closure attached to the neck of a container.

Fig. 2 is a vertical sectional view thereof.

Fig. 3 is a top plan view.

Fig. 4 is a side elevational view with parts broken away and shown in section, illustrating the measuring cup in use.

In the illustrated embodiment of the invention, the closure consists of a circular top portion 5 and a depending attaching flange 6, which is provided with screw threads 7 or the like, designed for engagement with external threads 8 on the neck 9 of a bottle 10 or the like container. This neck provides a filling and discharge opening 11, which is adapted to be sealed by said closure. A sealing ring 12 is intended to be brought into sealing engagement with the upper end of the neck by application of said closure. This ring may well be arranged within and attached to the cap.

A measuring cup 13 axially aligned with the closure and extending through the top portion, is formed integral with the latter and includes a circular bottom wall 14 and a circular side wall 15, the latter being concentric with the attaching flange 6 and extending into the space defined by said flange and in part projecting outwardly or upwardly from the circular top portion 5. The side walls 15 of the cup may be tapered to some degree to facilitate removal of the finished article from the mold, although the inherent elasticity of the phenolic condensation composition during the final stages of the molding operation, greatly facilitates removal of the finished article.

Modifications may be resorted to within the spirit and scope of the appended claim.

I claim:

A one-piece closure formed of a synthetic resin and including a circular internally screw threaded attaching flange, a measuring cup axially aligned with the flange and having tapered side walls, the open end of the cup terminating in proximity to one end of said attaching flange and having its other end extending outwardly beyond the opposite end of the flange, a transverse wall connecting an intermediate portion of the cup and said opposite end of the attaching flange and a sealing gasket arranged on the under side of said wall.

JACK M. WHEATON.