

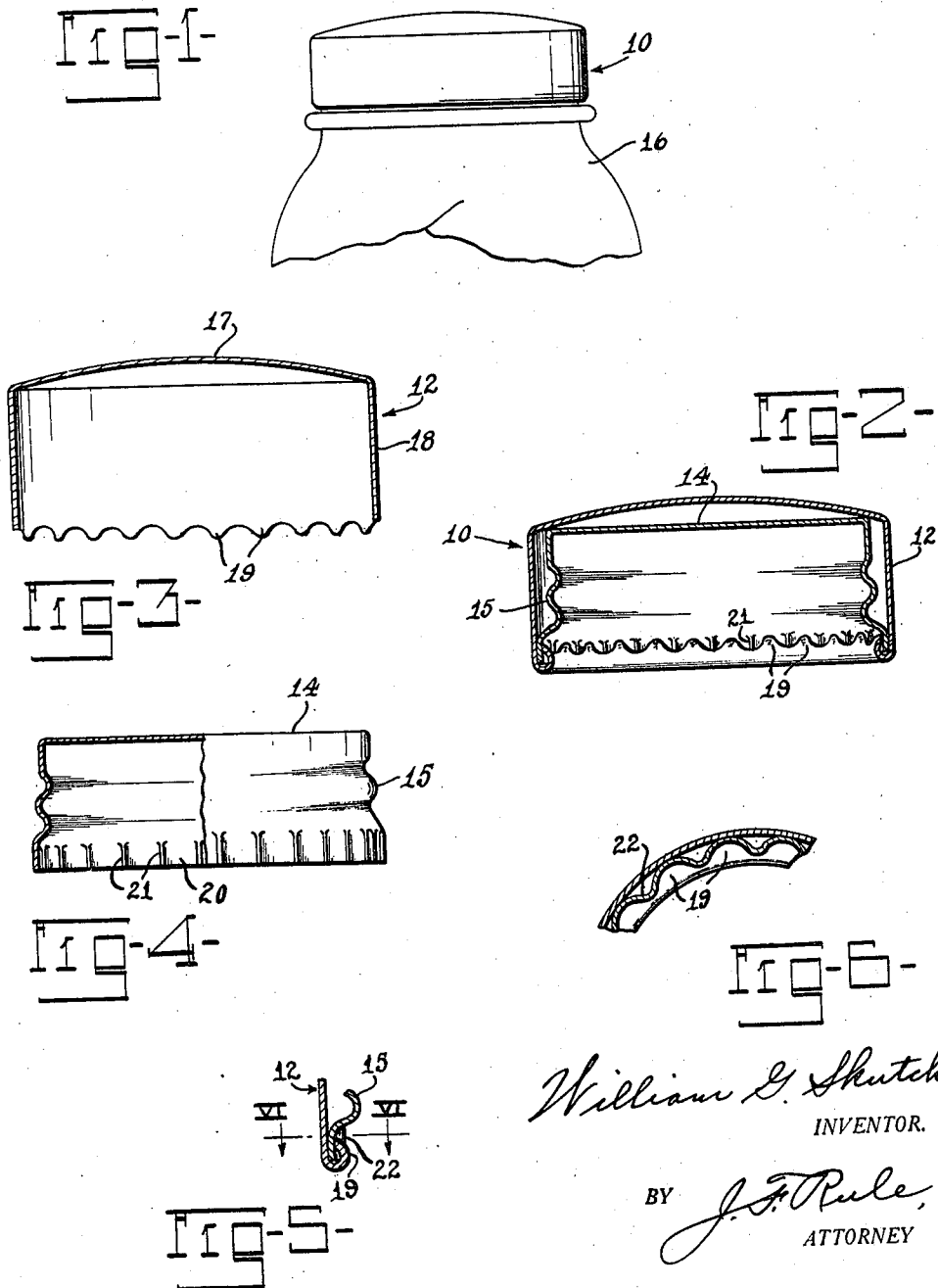
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DOUBLE SHELL CAP FOR CONTAINERS

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DOUBLE SHELL CAP FOR CONTAINERS

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1 Claim. (Cl. 215-43)

My invention relates to caps or closure devices for bottles, jars and the like. The invention relates particularly to improvements in that type of cap which includes an inner and an outer shell nested together.

Considerable difficulty has been experienced with caps of this type, owing to the tendency of the outer shell to slip or turn relative to the inner shell when the cap is being screwed onto or off the container. An object of my invention is to overcome this difficulty by the provision of means for securely interconnecting the inner and outer shells in a manner which will positively prevent such relative rotation or slippage. Other objects of the invention will appear hereinafter.

Referring to the accompanying drawing:

Fig. 1 is a fragmentary view of a jar with a cap thereon.

Fig. 2 is a sectional elevation of the cap.

Fig. 3 is a sectional elevation of the outer shell before it has been assembled with the inner shell.

Fig. 4 is a part sectional view of the inner shell.

Fig. 5 is a fragmentary sectional elevation of a modified construction, showing particularly the connection between the lower margins of the shells.

Fig. 6 is a sectional plan of the same, the section being taken at the line VI—VI on Fig. 5.

The cap and closure device 10 comprises an outer shell 12 and an inner shell 14, the latter formed with screw threads 15 for engagement with corresponding threads formed on the neck of the container 16.

The outer shell 12 is preferably made of sheet metal in a single piece. It comprises a circular top cover portion 17 which, as shown, is somewhat convex, and a depending annular flange or skirt 18 which in the finished cap presents a smooth exterior surface. The shell 12 may be stamped from sheet metal stock and drawn by suitable dies, to the shape shown in Fig. 3. The edge of the shell is scalloped or cut to form an annular series of lobes or projections 19.

The inner shell 14 also comprises a circular top and a depending skirt. The skirt is formed along its lower margin with an annular series of

ribs or the like 21 projecting inwardly on the interior surface of the shell.

After the shell 14 has been placed in position within the outer shell 12, the lower scalloped margin of the outer shell is rolled inwardly to grip the margin of the inner shell. The lobes 19 engage the corrugated or ribbed margin of the inner shell with said lobes positioned between the ribs 21. It will be seen that with this construction, the lobes 19 and ribs 21 provide interlocking or holding surfaces so that the inner and outer shells are securely interengaged or locked in a manner to reliably and positively prevent relative rotation of the shells when a turning force is applied to the cap either for tightening it on the container or removing it therefrom. In the finished cap, the scalloped margin 19 lies wholly within the cap and is spaced a substantial distance above the lower edge of the cap so that the latter presents a smooth finished appearance.

In the construction shown in Figs. 5 and 6, the inner shell is formed with rounded corrugations 22 which conform closely to the contour of the scallops 19 with which they are interlocked.

Modifications may be resorted to within the spirit and scope of my invention.

I claim:

A cap comprising an inner shell and an outer shell nested together, each shell having a top portion and a depending skirt, the skirt of the inner shell having an intermediate portion formed with means for attaching the cap to the neck of a container, the portion of the skirt below said attaching means being extended vertically downward with its free edge facing downward, an annular series of curved corrugations formed on the lower marginal portion of said inner skirt and extending upward from said free edge, the margin of the outer shell being rolled inwardly around the margin of the inner shell, the free edge of the outer shell margin being scalloped to form an annular series of correspondingly curved projecting lugs, said lugs interlocking with said corrugations on the inner shell and thereby positively holding said shells against relative rotative movement.

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