PATENT SPECIFICATION

334,258

Application Date: June 1, 1929. No. 16,899 / 29.

Complete Left: March 3, 1930.

Complete Accepted: Sept. 1, 1930.

PROVISIONAL SPECIFICATION.

Improvements in the Manufacture of Moulded Hollow-ware.

We, BROOKES & ADAMS LIMITED, a Company organised under the Laws of Great Britain, of 250—252, Barr Street, Hockley, Birmingham, in the County of Warwick, and ARNOLD EDWIN BROOKES, a Subject of the King of Great Britain, of the same address, do hereby declare the nature of this invention to be as follows:—

This invention relates to the manufacture of moulded hollow-ware and has for its object to produce by moulding means, a mechanical fastening or engagement by which a lid or cover may be releasably secured.

The invention also includes means for producing such a lid by moulding.

The present invention is primarily intended for application to articles produced in moulded synthetic resin and to dies for producing such articles.

One of the features of the present invention is to provide the lid or cover with a depending lip or peripheral flange the edge of which has one or more inwardly extending projections.

The upper part of the vessel with which the lid or cover is to be used is provided at or near its upper edge with a rib having a gap for each projection so that each projection on the lid can be passed downwardly through the gap after which the lid can be given a partial rotation to lock it in position.

The rib provided upon the upper part of the vessel is preferably placed somewhat below the upper edge thereof and the peripheral lip or flange of the lid is preferably shouldered so that it seats itself upon the upper edge of the vessel.

The rib provided on the vessel at one end adjacent each gap may preferably extend downwardly for a short distance so as to form a locating stop to indicate to the user when the projection or projections on the lid is opposite the gaps and to act as a stop.

For producing the lid by moulding in dies, the inner die may be made with a removable central piece of width equal to the length of the projection or projections, the arrangement being such that this part of the die can be removed from the outer portion of the die, and by turning the moulding on its own centre until it is clear of the inward projections the moulding can be removed.

Dated the 26th day of April, 1929.

FORRESTER, KETLEY & Co.,
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COMPLETE SPECIFICATION.

Improvements in the Manufacture of Moulded Hollow-ware.

We, BROOKES & ADAMS LIMITED, a Company organised under the Laws of Great Britain, of 250—252, Barr Street, Hockley, Birmingham, in the County of Warwick, and ARNOLD EDWIN BROOKES, a Subject of the King of Great Britain, of the same address, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

This invention relates to moulded hollow-ware and to the manufacture thereof and particularly concerns vessels of the class having a lid adapted to be secured on the vessel when desired by a mechanical fastening comprising spaced inward projections on the lid adapted to be engaged under spaced or interrupted flanges or projections on the upper edge of the vessel by passing the projections on the lid between those on the vessel and giving the lid a partial rotation, the projections or flanges having horizontal or inclined engaging surfaces as desired, and the object of this invention is to provide an improved form of mechanical connection of the kind specified and an improved method of manufacturing the lid of the vessel, by moulding.

The present invention is primarily intended for application to articles produced in moulded synthetic resin and to dies for producing such articles.

According to one feature of this invention we provide a moulded article of hollow-ware comprising a vessel and a lid or cover wherein the lid or cover is provided with a moulded depending lip or peripheral flange, the edge of which has a pair only of short moulded diametrically disposed downwardly and inwardly extending projections adapted to each engage one of a pair only of long circumferential ribs moulded on the outside of the vessel so as to project therefrom, gaps being left between the ends of said ribs.

According to another feature of this invention we provide a moulded article of hollow-ware comprising a vessel and a lid therefor wherein the lid is provided with a pair of short integrally moulded inwardly extending projections, and the upper part of the vessel is provided at a distance below its upper edge with an integrally moulded circumferential outstanding rib extending substantially all round the vessel but having a gap for each projection on the lid so that the projections on the lid can be passed downwardly through the gaps after which the lid can be given a partial rotation to engage said inward projection or projections on the lid with said rib for locking the lid in position on the vessel.

According to another feature of the invention the rib provided on the vessel extends downwardly for a short distance adjacent each gap in it so as to form a locating stop to indicate to the user when the projection or projections on the lid is or are opposite the gaps and to act as a stop.

For producing the lid by moulding in dies, the inner die may be made with a removable central piece of width equal to the length of the projection or projections, the arrangement being such that this part of the die can be removed from the outer portion of the die, and by turning the moulding on its own centre until it is clear of the inward projections the moulding can be removed.

In order that our invention may be clearly understood and more readily carried into practice, we have appended hereunto one sheet of drawings illustrating the same, wherein:—

Figure 1 is a perspective view of an article of hollow-ware provided with a lid and constructed according to this invention.

Figure 2 is a vertical section of the same.

Figure 3 is a sectional view showing the dies for moulding the lid of the vessel shown in Figures 1 and 2 and the moulded lid.

Figure 4 is a further sectional view showing the dies and the lid.

Figure 5 is an inverted plan of the lid and one of the dies for moulding it.

In the embodiment of this invention shown in the drawings, 1 is an article of hollow-ware which may be conveniently used as a butter dish, but may be used for other purposes, and the vessel 1 is provided with a lid 2 which has a depending rim or flange 3 shouldered on the inside at 4.

The lid has also two diametrically opposite depending and inwardly extending projections 5 formed on the lower edge of the flange 3.

The vessel is provided with a peripheral projection or rib 6 at a short distance from its upper edge, which rib is preferably formed parallel with the upper edge of the vessel, but may, if desired, be slightly angularly disposed relative thereto. This rib or peripheral projection is spaced slightly from the upper edge of the vessel and has a pair of diametrically opposite gaps 7 which are adapted to receive the projections 5 on the lid when the latter is being fitted to the vessel.

The rib 6 is also provided with downwardly extending stop portions 8, one of these stops being provided adjacent each gap 7 so as to limit the rotational movement of the lid when this is being applied.

In applying the lid to the vessel, the projections 5 are passed through the gaps 7 and the lid is rotated so that the projections 5 engage under the rib 6. The shoulder 4 rests upon the upper edge of the vessel.

For moulding the lid an upper die 9 and a lower die 10 are employed, and within the upper die 9 is provided an inner die 11 having a central groove 12 in which is placed a removable section 13 of the die. The removable section 13 is shaped at its ends 14 so as to form the insides of the projections 5 on the lid.

When the lid has been moulded as is shown in Figures 3 and 4, the lid together with the removable section 13 of the die is removed, thus leaving the die 9 and lid associated as shown in inverted plan in Figure 5. The removable section 13 of the die is then rotated or the lid is rotated (as shown in dotted lines) and the removable section 13 and the lid are so separated.

Having now particularly described and ascertained the nature of our said invention and in what manner the same is to be performed, we declare that what we

claim is :—

1. A moulded article of hollow-ware comprising a vessel and a lid or cover wherein the lid or cover is provided with a moulded depending lip or peripheral flange, the edge of which has a pair only of short moulded diametrically disposed downwardly and inwardly extending projections adapted to each engage one of a pair only of long circumferential ribs moulded on the outside of the vessel so as to project therefrom, gaps being left between the ends of said ribs.

2. A moulded article of hollow-ware comprising a vessel and a lid therefor wherein the lid is provided with a pair of short integrally moulded inwardly extending projections and the upper part of the vessel is provided at a distance below its upper edge with an integrally moulded circumferential outstanding rib extending substantially all round the vessel but having a gap for each projection on the lid so that the projections on the lid can be passed downwardly through the gaps, after which the lid can be given a partial rotation to engage said inward projection or projections on the lid with said rib for locking the lid in position on the vessel.

3. A moulded article of hollow-ware according to Claim 1 or 2, wherein the rib provided on the vessel is provided with a downwardly projecting portion adjacent each of the gaps formed in it, each downwardly projecting portion forming a locating stop limiting the rotational movement of the lid on the vessel.

4. A moulded article according to Claim 3, wherein an annular shoulder is provided on the interior of the lid which is adapted to rest on top of the rib or ribs on the vessel.

5. Apparatus for producing by moulding a lid for a vessel according to Claim 1, 2, 3 or 4, wherein the die for moulding the inside of the lid is provided with a removable section adapted to form the insides of the projections on the lid and adapted to be removed from the lid, after the lid and the removable section have been removed from the remaining part of the moulding apparatus, by rotating the removable section of the die and the lid relative to one another.

6. Apparatus for producing by moulding a lid for a vessel according to Claim 5 wherein upper and lower dies are employed, and the upper die is provided with an inner part adapted to mould the inside of the lid and having a diametrical groove or slot for the reception of the removable section of the inner die.

7. An article of hollow-ware substantially as herein described with reference to the annexed drawings.

8. Apparatus for moulding articles of hollow-ware substantially as herein described with reference to the annexed drawings.

Dated the 25th day of February, 1930.
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Redhill: Printed for His Majesty's Stationery Office, by Love & Malcomson, Ltd.—1930.

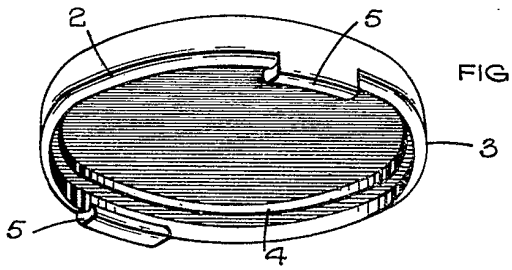


FIG. 1.

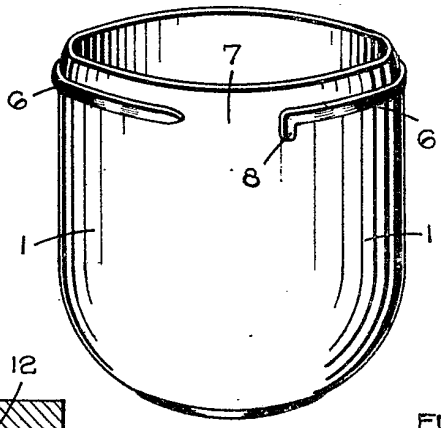


FIG. 4.

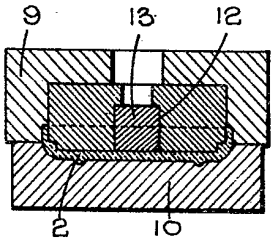
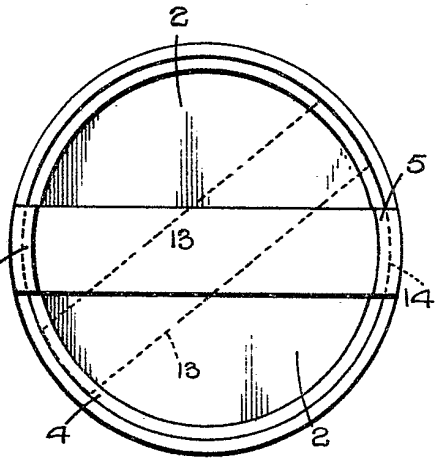


FIG. 5.



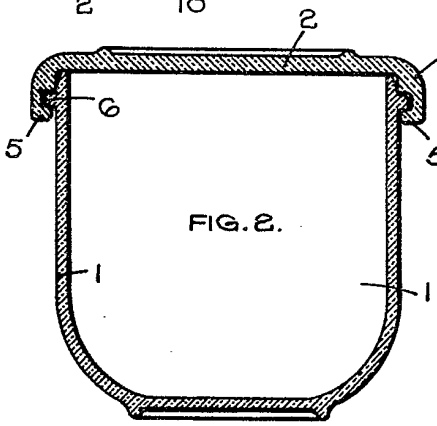
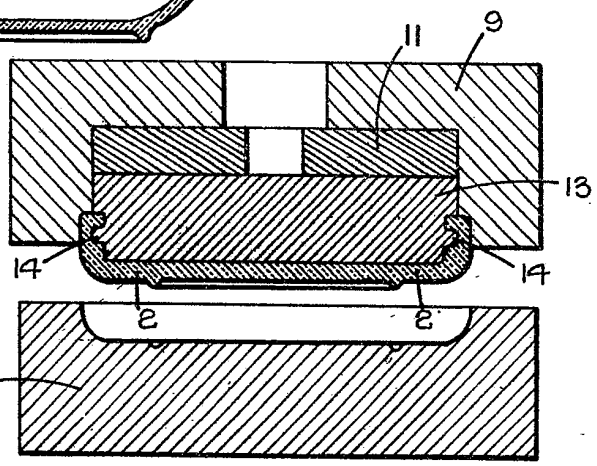


FIG. 2.

FIG. 3.



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