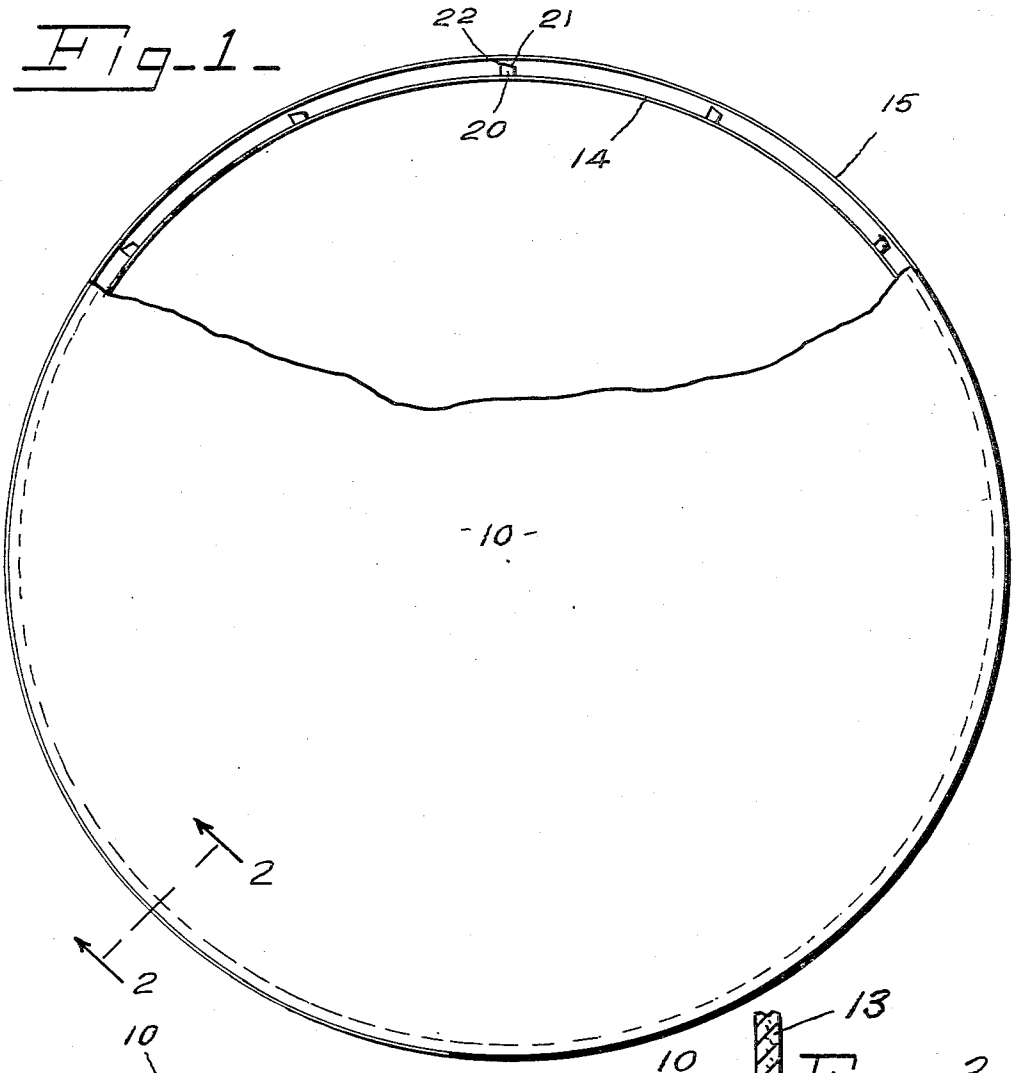
March 18, 1958 I. L. WILCOX 2,827,218

BOTTOM CLOSURE ASSEMBLY FOR CONTAINERS

Filed March 14, 1957

Fig-1-



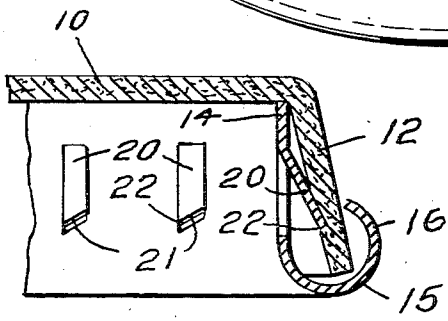


Fig-2-

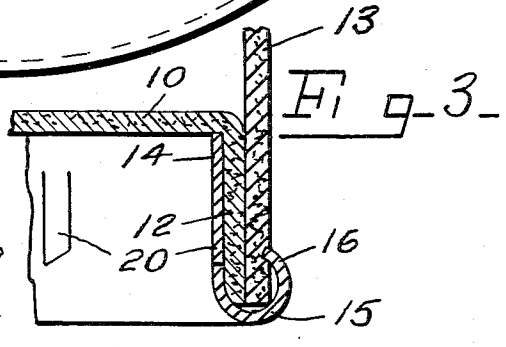


Fig-3-

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BOTTOM CLOSURE ASSEMBLY FOR CONTAINERS

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2 Claims. (Cl. 229—5.5)

This invention relates to bottom closure assemblies for containers formed of paperboard, or like material, and of the type wherein the container bodies are shipped in flat collapsed condition, the bottom closures being assembled to the container bodies at the packaging plant. Such containers are used extensively for the bulk packaging of ice-cream, frozen food products, etc.

The body formation of such a container is shown in Patent No. 2,053,153, issued September 1, 1936, to Leon E. La Bombard. A bottom assembly, consisting of a bottom closure and crimping ring, is shown in Patent No. 2,079,292, issued May 4, 1937, to G. S. Jones. The bottom closure assemblies are applied and fixedly secured to the container bodies by an assembling machine, such as the type shown in Patent No. 2,238,372, April 15, 1941, to J. F. Price.

The container bodies or barrels are of tubular formation and are scored lengthwise to provide for collapsing the bodies in substantially flat form for economy in shipping. A substantial number of container bodies are packaged for shipment in a large carton, and a corresponding number of bottom assemblies are also included in the package. At the packaging plant, the container bodies are expanded to tubular form, inserted in the assembling machine, the bottom closure assembly placed on the end of the expanded body, and the closure is affixed to the body by a crimping operation performed on the crimping ring included in the bottom assembly. In the rapid handling of these bottom assemblies at the packaging plant, the flanged end closure often becomes dislodged, or separated, from the crimping ring, necessitating additional manual work on the part of the operator.

This invention has as an object a bottom assembly wherein the flanged end closure is secured temporarily in the channel of the crimping ring against displacement thereform until the bottom assembly has been affixed to the container body.

The invention consists in the novel features and in the combinations and constructions hereinafter set forth and claimed.

In describing this invention, reference is had to the accompanying drawings in which like characters designate corresponding parts in all the views.

In the drawings—

Figure 1 is a plan view, partially broken away, of the bottom assembly.

Figure 2 is a cross section of the bottom assembly taken along line 2—2 of Figure 1.

Figure 3 is a view, similar to Figure 2, showing the bottom assembly affixed to the container body.

Referring to the drawings, the numeral **10** designates the discoidal portion of the bottom closure, the marginal portion of which is bent to form an annular flange **12**. When the bottom closure is affixed to the container body **13**, the flange **12** engages the inner surface of the side wall of the container, as shown in Figure 3.

The bottom closure is fixedly secured to the container body 13 by a crimping ring formed with an inner flange

14 engaging the inner surface of the flange **12**. The outer portion of the crimping ring is curved outwardly, as at **15**, to form a channel for the reception of the edge of the flange **12** of the bottom closure and the end portion of the container body **13**.

Initially, the outer wall **16** of the channel portion is spaced outwardly from the inner flange wall **14** a sufficient distance to accommodate both the closure flange **12** and the container side wall **13**.

The bottom closure assembly is applied to the end of the container body by moving the assembly axially toward the body, whereby the flange **12** enters the end of the container body and the latter moves into the channel portion of the crimping ring. Thereupon, the channel portion of the crimping ring is crimped to close the outer wall **16** of the channel into engagement with the outer surface of the container body **13**, this operation resulting in the flange **12** of the end closure and the contiguous portion of the container body being securely pinched together to prevent any displacement of the closure from the end of the container body.

Specifically, the improvement of my invention resides in an arrangement for interlocking the end closure flange **12** to the crimping ring prior to the application of the assembly to the container. This is brought about by a series of barbs **20** struck out of the inner ring flange **14**. These barbs are substantially of rectangular formation, as shown in Figures 2 and 3, with the free ends of the barbs being inclined to the side edges of the barbs, as shown at **21**, to provide a point **22**.

The flange **12** of the end closure is positioned in the channel formation of the crimping ring and the barbs **20** are then struck outwardly, engaging the flange **12** and moving it against the end edge of the curved outer wall **16** of the channel. This operation results in the points **22** of the barbs piercing the flange **12** sufficiently to prevent displacement to the crimping ring from the flange **12**.

When the end closure assembly is applied to the end of the container body **13**, the flange **12** is engaged by the container body and swung inwardly, also effecting inward movement of the barbs **20**, whereby they are returned in the plane of the flange **14**, as shown in Figure 3.

With this arrangement, the end closure members are initially secured to the crimping rings in such manner that the rings do not become displaced from the bottom closure and yet the barbs **20** do not in any way interfere with the application of the end closures to the container bodies and the affixing of the closure to the body by the crimping of the channel portion **15** of the ring.

What I claim is:

1. A bottom closure assembly for a container comprising a bottom closure having a central discoidal portion encircled by a depending annular flange, a crimping ring for ultimately affixing the bottom closure to a container body having an inner flange positioned within the flange of the bottom closure and having an outwardly curved portion forming a channel for the reception of the edge portion of said bottom closure flange, said inner flange of said crimping ring being formed with a plurality of outwardly and downwardly projecting barb portions engaging the inner surface of the bottom closure flange and urging the same against the outer wall of said channel formation.

2. A bottom closure assembly, as defined in claim 1, wherein the free ends of said barbs are formed with a point piercing said bottom closure flange.

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