Dec. 6, 1960 T. F. BRENNAN ET AL 2,963,194

MULTIPLE CONTAINER PACKAGE

Filed Feb. 7, 1958

Fig. 1

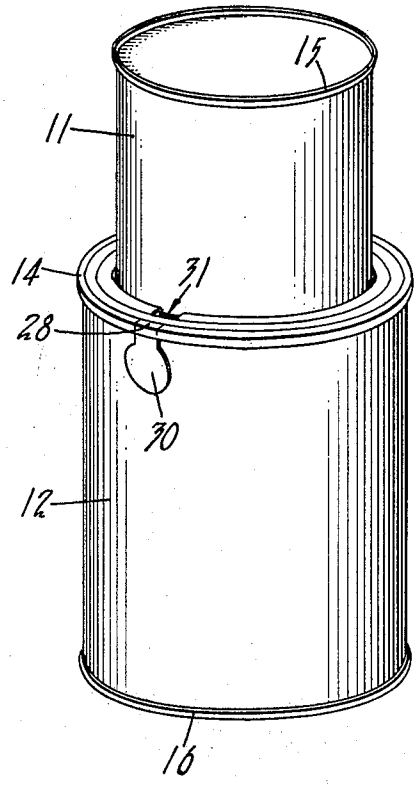


Fig. 2

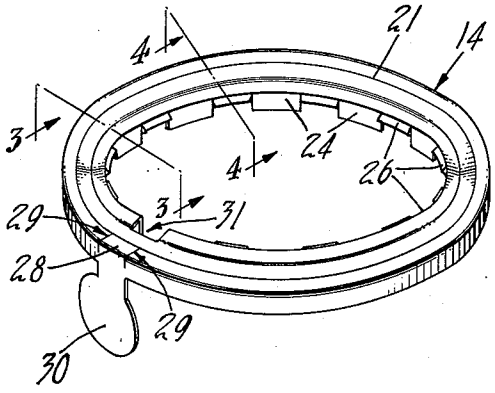


Fig. 4

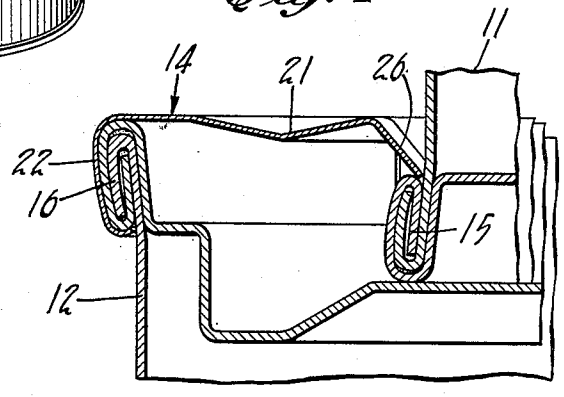
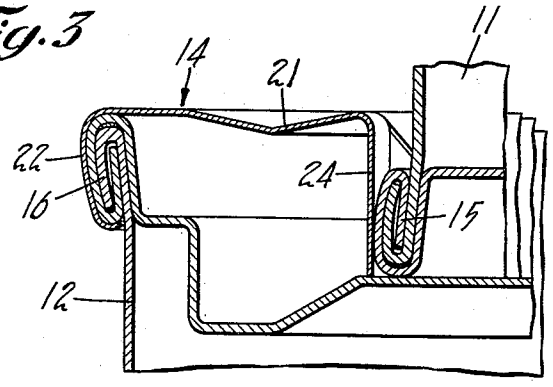


Fig. 3



INVENTORS
THOMAS F. BRENNAN
RICHARD J. WHITE

BY Leland R. McCann
George W. Raiber

ATTORNEYS

United States Patent Office

2,963,194

Patented Dec. 6, 1960

2,963,194

MULTIPLE CONTAINER PACKAGE

Thomas F. Brennan, Valhalla, and Richard J. White, New York, N.Y., assignors to American Can Company, New York, N.Y., a corporation of New Jersey

Filed Feb. 7, 1958, Ser. No. 713,985

6 Claims. (Cl. 220—23.83)

The present invention relates to a container package comprising a pair of containers clamped together in end-to-end relation as a unitary structure and has particular reference to an improved clamping ring for locking the containers against displacement from each other.

An object of the invention is to provide a multiple container package in which one container may be easily attached to another container in substantially permanent relation for the purposes of promotional sales handling of related or unrelated products desired to be sold together or one given as a premium with the sale of the other.

Another object is to provide a clamping ring for holding the containers together, the ring being of such a construction that it may be secured by the usual can making practice and machinery, to the end seam of a container for shipment with the container as an integral part thereof for subsequent use by the promoter in attaching another container to produce the container package.

Another object is to provide such a clamping ring that is formed to permit the easy attachment of the second container thereto by a mere insertion of the end of the second container into the ring and is further formed to lock the second container against displacement so that it cannot be removed except by breakage of the ring to prevent sale of the containers separately.

Numerous other objects and advantages of the invention will be apparent as it is better understood from the following description, which, taken in connection with the accompanying drawings, discloses a preferred embodiment thereof.

Referring to the drawings:

Figure 1 is a perspective view of a container package embodying the instant invention;

Fig. 2 is an enlarged perspective view of a clamping ring utilized in the container package shown in Fig. 1; and

Figs. 3 and 4 are enlarged sectional views of adjacent corners of the containers shown in Fig. 1 secured together by the clamping ring shown in Fig. 2 to produce the container package, the views being taken substantially along vertical planes indicated by the respective lines 3—3, 4—4 in Fig. 2.

As a preferred and exemplary embodiment of the instant invention the drawing discloses a container package comprising two separate cans or containers **11**, **12** arranged in end-to-end relation, i.e. one on top of the other endwise, and secured together against displacement by a clamping ring **14**. The containers **11**, **12** are conventional sheet material containers comprising tubular bodies having end closures permanently secured thereto in suitable end seams **15**, **16** respectively, which ordinarily project outwardly beyond the bodies, such as the well known double seam shown in the drawing. As shown in the drawing the lower container **12** is greater in diametrical dimensions than the upper container **11**, but the invention is equally well adapted to containers of equal diameters if desired.

The clamping ring **14** surrounds and engages the adjacent end seams **15**, **16** of the two containers **11**, **12** and is constructed in such a manner that by the use of ordinary can making machinery it can be secured, against displacement, to one of the containers, preferably the upper end of the lower container **12**. The ring **14** is also constructed to accept the lower end of the upper container **11** by a mere endwise insertion of the upper container **11** into the ring. Once inserted into the ring, the upper container **11** cannot be removed. It is substantially permanently locked to the lower container **12** and can only be released by breakage of the ring. The clamping ring **14** is thus a locking ring as distinguished from a mere holding or tie ring from which the containers may be readily released.

Thus through the use of such a clamping ring **14** attached to one of the containers, the other of the containers may be readily assembled therewith to produce the desired package of any combination of products, by the promoter, packer, or store keeper without the use of tools, the resulting package being a unitary structure that cannot be divided except by breakage of the ring.

For these purposes, the clamping ring **14** preferably is a narrow horizontally disposed substantially flat member adapted to seat against the top of the end seam **16** of the lower container **12** as shown in Figs. 3 and 4. Intermediate its outer and inner peripheries, the ring **14** preferably is provided with an annular reenforcing bead **21**. At its outer periphery, the ring **14** is provided with a depending annular skirt or rim or seam engaging portion **22** which extends down over and adjacent the outer periphery of the lower container end seam **16**, and is crimped under the seam as shown to substantially permanently secure the ring to the lower container for shipment therewith as an integral part thereof.

At its inner periphery, the ring **14** is provided with a depending annular wall portion comprising a plurality of spaced resilient locating tongues **24** which surround and yieldably engage against the outer periphery of the end seam **15** of a container **11** in place on top of the container **12** as shown in Fig. 3. The tongues **24** centralize the upper container **11** relative to the lower container **12** and thus locate the containers in substantially axial alignment.

The inner periphery of the ring **14** is also provided with a plurality of reversely bent hook shaped resilient locking tongues **26** (Figs. 2 and 4) which extend inwardly and downwardly toward the center of the ring. These locking tongues **26** are located between the locating tongues **24** (see Fig. 2) and surround and engage edgewise against the body of the upper container **11** at points immediately above or beyond its end seam **15** as best shown in Fig. 4 for substantially permanently locking the upper container **11** in place on the lower container **12**.

When the ring **14** is secured to the lower container **12**, assembly of the upper container **11** to the lower container is only a simple matter of pushing the lower end of the upper container into the ring. In effecting this assembly, the end seam **15** of the upper container **11** is pushed down against and snapped past the locking tongues **26**, the tongues yielding inwardly and immediately snapping back into the original position above the end seam **15** as soon as the seam is below the tongues. Once the seam **15** is beyond the tongues **26**, the upper container **11** is locked in place and cannot be removed without destroying the ring. The ring **14** therefore acts as a telltale if broken.

Under normal usage the locked together containers **11**, **12** are released for use separately, through a weakened area **28** in the ring. As shown in Figs. 1 and 2 this weakened area preferably is defined by a pair of spaced score lines **29** in the ring. A tab **30** connected to the weakened area **28** is provided as a finger hold to tear the ring **14** across, along the score lines, into an oppositely disposed

notch 31 at the ring inner periphery and thus facilitate proper removal of the ring to release the containers.

In Figs. 3 and 4 of the drawing the top end member of the lower container 12 is illustrated as a double countersink panel member. This however is merely a preferential showing. The invention works equally well with the usual single or substantially flat single countersink panel end member.

It is thought that the invention and many of its attendant advantages will be understood from the foregoing description, and it will be apparent that various changes may be made in the form, construction and arrangement of the parts without departing from the spirit and scope of the invention or sacrificing all of its material advantages, the form hereinbefore described being merely a preferred embodiment thereof.

We claim:

1. A container package, comprising two cylindrical containers arranged in endwise relation and having adjacently disposed laterally projecting end seams, and an endless locking ring having at one end thereof an annular skirt secured to and over the end seam of one of said containers to lock said ring against displacement therefrom, said ring having at its other end a plurality of circumferentially spaced depending tongues surrounding and engaging the outer periphery of the end seam of the other container to locate the latter in axially aligned engagement with said one container, said ring also having at its said other end a plurality of circumferentially spaced resilient locking tongues disposed between said depending tongues, said locking tongues being inclined toward and engaging edgewise circumferentially against said other container immediately inwardly of its end seam to permanently lock said containers together as a unitary package.

2. A container package of the character defined in claim 1 wherein said ring is provided with a weakened area, and a tongue attached to said weakened area for rupturing the same to open said ring to release said containers for use separately.

3. A container package, comprising two cylindrical containers of different diameters disposed in endwise relation and having adjacently disposed laterally spaced and projecting end seams, and an endless locking ring having an annular skirt secured to and over the end seam of the container of greater diameter to lock said ring against displacement therefrom, said ring also having a plurality of circumferentially spaced depending tongues surrounding and engaging the outer periphery of the end seam of the container of lesser diameter to locate the latter centrally of and in axially aligned engagement with said greater diameter container, said ring also having a plurality of inwardly extending circumferentially spaced resilient locking tongues disposed between said depending tongues, said locking tongues being inclined toward and engaging edgewise against said lesser diameter container

immediately adjacent its said end seam to permanently lock said containers together as a unitary package.

4. A cylindrical container having a laterally projecting end seam, and a clamping ring having an annular skirt seated on and permanently secured to said end seam, said ring having a plurality of inwardly projecting yieldable snap tongues arranged in circumferentially spaced concentric relation and spaced radially inwardly from said end seam, said tongues being resiliently engageable with the end seam of a second cylindrical container of less diameter as the latter is pushed axially into place past said tongues to obtain axially aligned end-to-end engagement of said containers, said tongues being disposed for endwise snapping engagement against the cylindrical side wall of said second container immediately adjacent its said end seam when thus pushed into place to clear the end seam from said tongues, thereby locking said second container in permanent end to end engagement with said first mentioned container.

5. A one piece clamping ring for permanently securing together in endwise relation two cylindrical containers having adjacently disposed laterally projecting end seams, said ring having an outer depending cylindrical skirt for enclosing in secured relation the end seam of one of said containers to lock the ring against displacement therefrom, said ring also having a plurality of circumferentially spaced depending locating tongues spaced radially inwardly from said skirt for centrally locating the end seam of the other container when the latter is moved axially into said ring, and a plurality of circumferentially spaced yieldable locking tongues on said ring disposed between said spaced locating tongues and projecting radially inwardly at an angle to the ring axis, said locking tongues having resilient snapping engagement over the end seam of said other container to bear endwise against the side wall thereof upon axial insertion of said other container into engagement with the surrounding locating tongues of said ring to permanently secure said containers together in end to end contacting relation.

6. A clamping ring of the character defined in claim 5 having a weakened area, and means for rupturing said area to break said ring and release said containers.

References Cited in the file of this patent

UNITED STATES PATENTS

1,921,015	Young	Aug. 8, 1933
1,937,939	Behrens	Dec. 5, 1933
1,939,719	Nicholls	Dec. 19, 1933
1,967,349	Carvalko	July 24, 1934
2,249,764	Hothersall	July 22, 1941
2,552,318	Hartmann	May 8, 1951

FOREIGN PATENTS

354,247	Great Britain	Aug. 4, 1931