June 4, 1968 H. G. GENTRY 3,386,569

CAN WRAPPER

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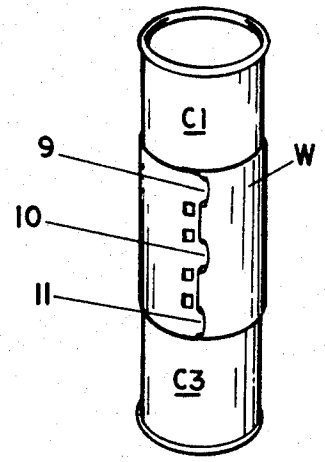

FIG. 1

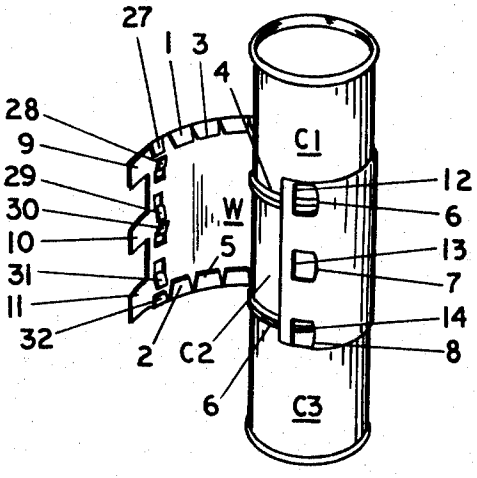

FIG. 2

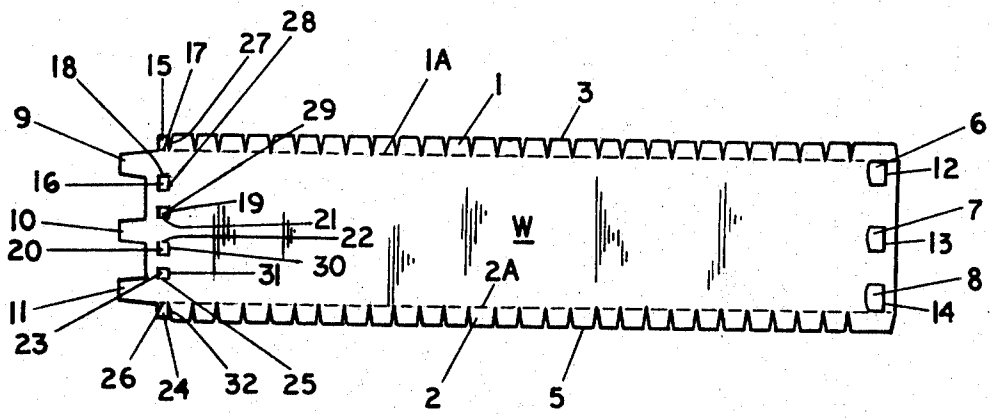

FIG. 3

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CAN WRAPPER

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ABSTRACT OF THE DISCLOSURE

A wrapper is provided along its side edges with inwardly protruding holding tabs for engaging the end flanges of end-to-end primary packages so as to hold such packages in coaxial relation and a locking aperture is formed in one end of the wrapper blank which receives a locking tongue forming a part of the other end of the wrapper blank. One or more locking tabs are struck from the wrapper blank adjacent the locking tongue and are folded transversely with respect thereto so that the side edges thereof engage a locking edge of the associated locking aperture when the tongue is inserted therein.

This invention relates to can wrappers and more particularly to a wrapper and interlocking means therefor which is well adapted for use in conjunction with flanged primary packages and which affords a convenient means for packaging such items in end-to-end coaxial relationship.

Primary packages such as flanged cans, bottles and the like are frequently arranged in groups in side-by-side relationship and the group of such articles is then enveloped in a wrapper which holds the primary packages in side-by-side rectilinear relationship. Wrappers of this type perform an effective packaging operation and also provide substantial areas on which advertising is imprinted.

A principal object of this invention is to arrange a plurality of primary packages in coaxial relationship and by this means to effect substantial economies in material required to form the wrapper and at the same time to expose the primary package to the view of the purchaser and thereby to utilize the label on the primary package as the principal advertising means rather than to utilize advertising data on the wrapper itself.

Another object of this invention is the provision of an improved wrapper for flanged cans which affords stable can arrangement and which lends itself to stacking one on top of another in side-by-side relationship with the axes of the packages arranged vertically, horizontally, or in some other disposition.

Still another object of this invention is to provide an improved interlocking means for a wrapper which is simple and easy to lock and unlock.

A further object of this invention is the provision of an improved can wrapper having advertising area which is exposed from all sides of the package and yet which does not employ a substantial amount of material.

The invention in one form as applied to a wrapper for securing a plurality of flanged primary packages in end-to-end relationship comprises a locking aperture formed in one end portion of the wrapper, a locking tongue forming a part of the other end portion of the wrapper, the locking tongue being arranged for disposition within the locking aperture in face contacting relation with the end of the wrapper in which the aperture is formed, and at least one locking tab struck from the end portion of the wrapper adjacent the base of the locking tongue and folded so as to expose an edge thereof for engagement by an edge of the locking aperture and by this means to secure the ends of the wrapper together.

For a better understanding of the invention, reference may be had to the following detailed description taken in

conjunction with the accompanying drawings in which FIG. 1 is a perspective view of a package formed of three flanged cylindrical containers stacked one atop another in coaxial relationship and with the wrapper constructed according to this invention shown in its locked relationship; FIG. 2 is a view similar to FIG. 1 but showing the ends of the wrapper in unlocked condition; and in which FIG. 3 is a plan view of a blank from which the wrapper depicted in FIGS. 1 and 2 is formed.

In the drawings, the flanged cans constituting the primary packages shown in FIGS. 1 and 2 are designated C1, C2, and C3. The wrapper in the drawings is designated W.

Generally speaking, the wrapper W is arranged in encircling relationship with respect to the primary packages with its ends secured together, the packages being held in position by a plurality of inwardly folded holding tabs formed along each edge of the wrapper W and designated respectively by the numerals **1** and **2**. Thus, as is apparent, holding tabs **1** are folded forwardly and downwardly to occupy positions as depicted in FIG. 2 and when so folded the holding tabs **1** are arranged so that their end edges **3** are in abutment with the lower flange **4** of primary package C1. Similarly, the holding tabs **2** as shown in FIG. 2 are folded upwardly and toward the main body of the wrapper W so that the inner end edges **5** thereof engage the upper flange **6** of can C3. Thus, the holding tabs **2** and **3** hold the top can C1 and the bottom can C3 into close secure contact with the opposite ends of the middle can C2.

In order to secure the ends of the wrapper W together as shown in FIG. 1, a plurality of generally rectangular locking apertures **6**, **7** and **8** may be formed in one end portion of the wrapper W and a corresponding plurality of locking tongues designated **9**, **10** and **11** may constitute a part of the opposite end portion of the wrapper W. The apertures **6**, **7** and **8** are provided with transverse locking edges **12**, **13** and **14**, respectively. Each locking tongue is provided with at least one locking tab. Preferably, each tongue is provided with a pair of locking tabs and in the drawings tongue **9** is shown as provided with a pair of locking tabs **15** and **16** which are struck from and foldably joined respectively to the end portion of the blank W along fold lines **17** and **18**, respectively. Fold line **17** as shown in FIG. 3 is simply disposed as a continuation of the fold lines **1A** by which the holding tabs **1** are foldably joined to the blank W.

Holding tongue **10** is also provided with a pair of locking tabs which are designated by the numerals **19** and **20**. Locking tab **19** is struck from the end of blank W and is foldably joined thereto along a fold line **21** while locking tab **20** is struck from the blank W and is foldably joined thereto along a fold line **22**.

In like fashion, a pair of locking tabs **23** and **24** are associated with the locking tongue **11**. Locking tab **23** is struck from the blank W and is foldably joined thereto along fold line **25** while locking tab **24** is foldably joined to an edge of blank W along fold line **26**. As is apparent from FIG. 3, the fold line **26** for locking tab **24** is a continuation of the fold lines **2A** by which the holding tabs **2** are foldably joined along a side edge of the blank W.

In order to form the package according to this invention, the primary packages such as C1, C2 and C3 are arranged in coaxial end-to-end relationship as shown in FIGS. 1 and 2 and the wrapper W is then disposed thereabout.

In order to interlock the ends of the wrapper W, the locking tabs **15** and **16** are folded inwardly toward each other along their respective fold lines **17** and **18** and when so folded their ends are spaced apart with no overlapping portions. Simultaneously, the locking tabs **19** and **20** are folded inwardly toward each other along their respective fold lines **21** and **22** while at the same time the

locking tabs 23 and 24 are folded inwardly toward each other along their fold lines 25 and 26. Of course the holding tabs 1 and 2 are likewise folded inwardly along their respective fold lines 1A and 2A in a manner similar to the folding of the locking tabs 15 and 24. After the folding of the locking and holding tabs is substantially completed, the locking tongues 9, 10 and 11 are slipped through the locking apertures 6, 7 and 8 respectively, the entry of the locking tongues being from the outer surface of the end of the wrapper in which the locking apertures 6, 7 and 8 are formed. The locking tongues are slipped sufficiently far into their respective locking apertures so that the side edges 27 and 28 of the locking tabs 15 and 16 lie in engagement with the locking edge 12 of locking aperture 6. Of course a secure interlock is provided by this means due to the fact that the locking tabs 15 and 16 do not lie precisely in parallel relationship to the general plane of the wrapper W due to the "fight" of the material from which the wrapper W is formed. In like fashion, the side edges 29 and 30 of the locking tabs 19 and 20 engage the locking edge 13 of locking aperture 7 and, as explained, occupy a position of angular relationship thereto due to the inherent characteristics of the material from which the wrapper W is formed. Similarly, the side edges 31 and 32 of the locking tabs 23 and 24 engage the locking edge 14 of locking aperture 8 and occupy an angular position with respect thereto.

While the invention is shown in the drawings and described above in conjunction with three primary packages such as the cans C1, C2 and C3, it will be understood that the invention is applicable to a package made up of two cans or of any number of cans within the limits of desirable package sizes.

It is also apparent that a minimum quantity of material is required to form the wrapper W particularly when the number of primary packages is small.

Since the package group is not bulky, there is no necessity to provide a handle, it being apparent that an end or intermediate primary package may simply be grasped by hand and the package carried in this manner. The stacking of packages constructed according to this invention obviously is facilitated due to the fact that the packages may be stacked end-on-end or they may be laid in side-by-side relationship to form a display pyramid, for example. Maximum view of the primary package is afforded by a wrapper constructed according to this invention. If advertising space is desired on the wrapper itself, such space is provided and is of such nature that it is visible from any vantage point.

While a particular embodiment of the invention has been shown and described, the invention is not limited thereto and it is intended in the appended claims to cover all such changes and modifications as fall within the true spirit and scope of the invention.

The embodiments of the invention in which an exclusive property or privilege is claimed are defined as follows:

1. A package comprising a pair of flanged articles arranged end-to-end, a wrapper disposed about said articles and overlying the flanges thereof, a generally rectangular locking aperture formed in one end of said wrapper and having a transverse locking edge, a locking tongue forming a part of the other end of said wrapper and disposed in said locking aperture in face contacting relation to said one end of said wrapper and in engagement with an edge of said locking aperture remote from said locking edge, and a locking tab struck from said other end of said wrapper near the base of said locking tongue and folded along a fold line which is generally parallel to said locking tongue and into said generally rectangular locking aperture to a position wherein a side edge thereof is disposed for engagement by said locking edge of said locking aperture, said locking tab being folded in a direction generally transverse to said locking tongue through an angle of approximately one hundred eighty (180) degrees and into face contacting relation with an adjacent article and retained thereby in locking position.

2. An arrangement according to claim 1 wherein a pair of locking tabs are folded toward each other inwardly along fold lines which are generally parallel to each other and to said locking tongue and wherein the ends of said locking tabs are spaced from each other with no overlapping portions.

3. An arrangement according to claim 1 wherein a plurality of locking apertures are formed in one end of said wrapper and wherein a plurality of locking tongues form parts of the other end thereof and wherein a pair of locking tabs is disposed adjacent the base of each locking tongue, one locking tab of such pair of locking tabs which is adjacent the side edges of the wrapper being foldably joined to such side edge.

References Cited

UNITED STATES PATENTS

2,388,288	11/1945	Ringler et al.	229—39
2,896,779	7/1959	Armel	206—65
2,990,997	7/1961	Weiss	229—40

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