April 2, 1957 C. W. VOGT 2,787,409

MULTI-UNIT CONTAINER

Filed June 3, 1953 3 Sheets-Sheet 1

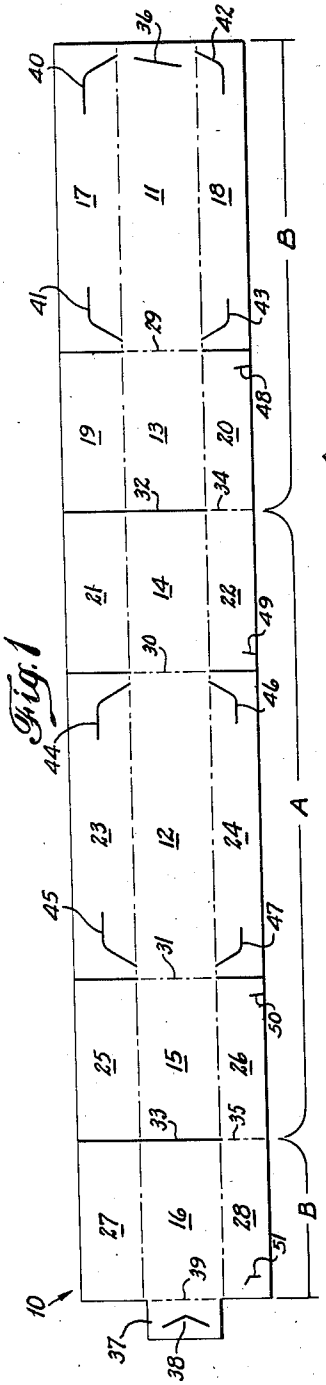


Fig. 1

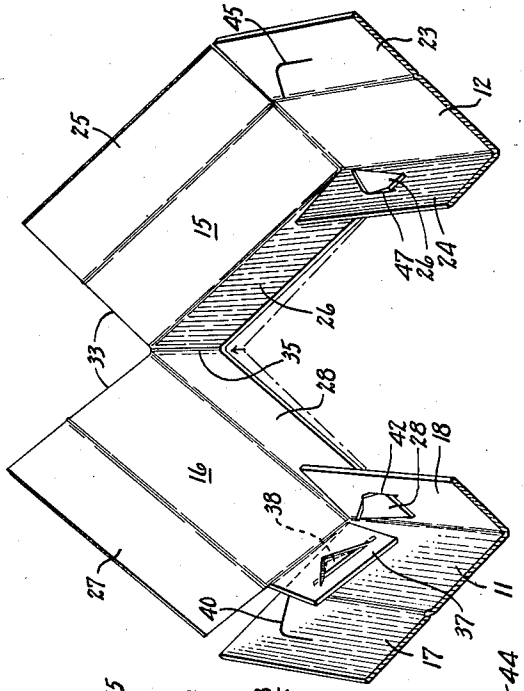


Fig. 3

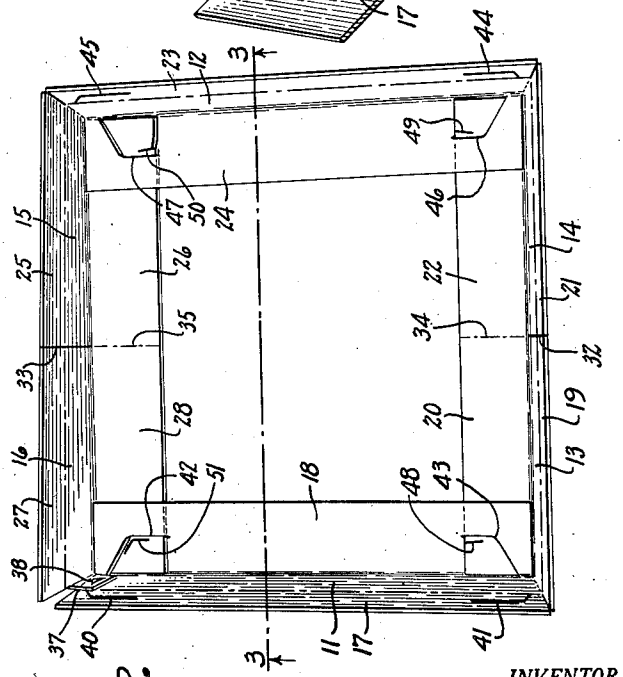


Fig. 2

INVENTOR.
CLARENCE W. VOGT
BY
Campbell, Brumbaugh, Free & Graves
ATTORNEYS.

April 2, 1957 C. W. VOGT 2,787,409

MULTI-UNIT CONTAINER

Filed June 3, 1953 3 Sheets-Sheet 2

Fig. 4

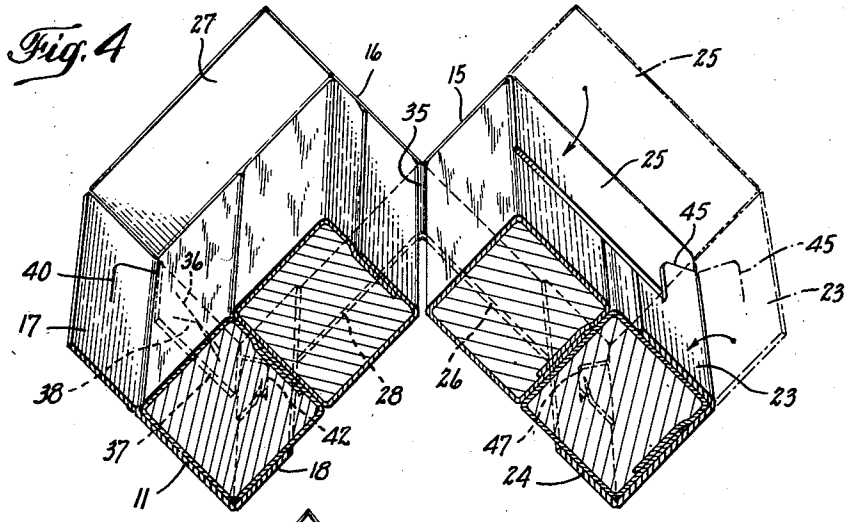
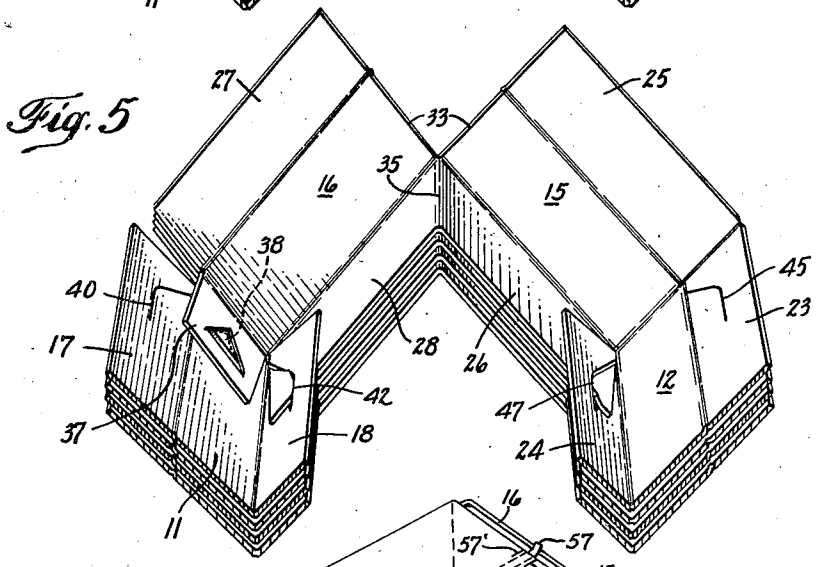


Fig. 5



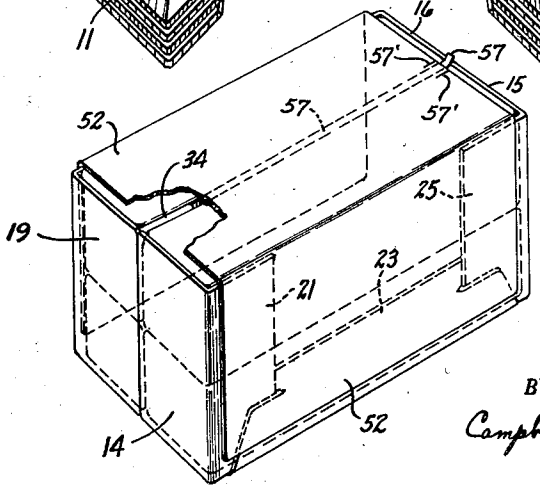


Fig. 6

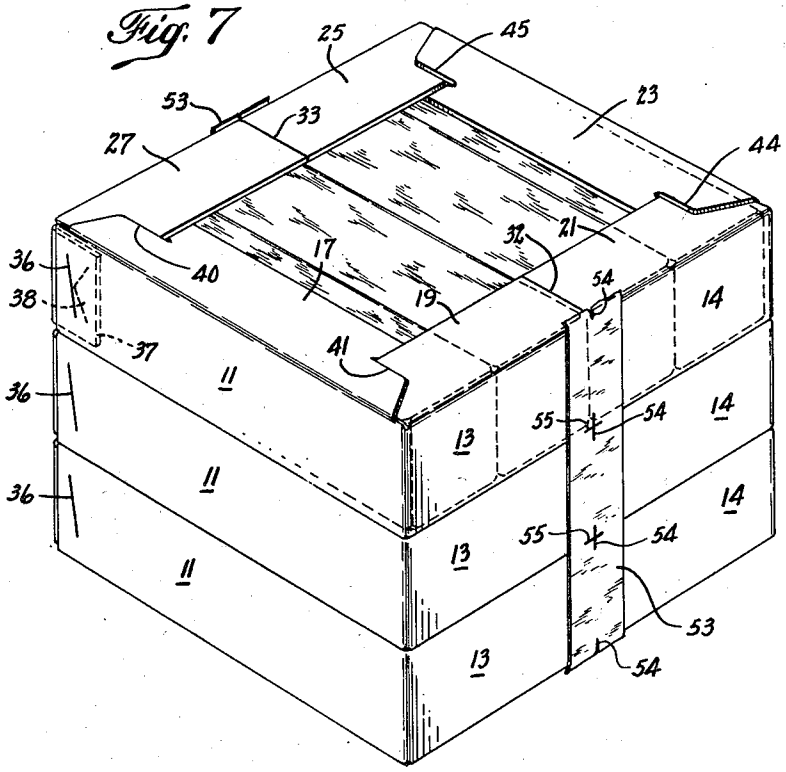
INVENTOR.
CLARENCE W. VOGT
BY
Campbell, Brumbaugh, Free & Graves
ATTORNEYS.

April 2, 1957 C. W. VOGT 2,787,409

MULTI-UNIT CONTAINER

Filed June 3, 1953 3 Sheets-Sheet 3

Fig. 7



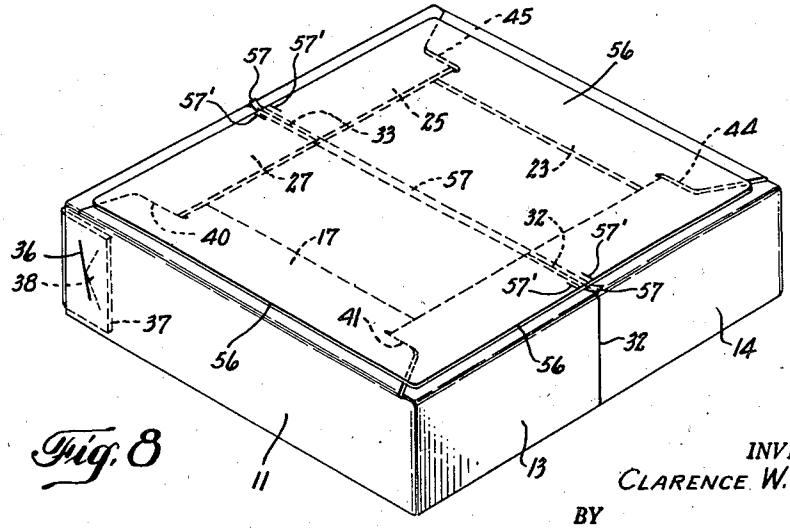


Fig. 8

INVENTOR.
CLARENCE W. VOGT.

BY
Campbell, Brumbaugh, Free & Graves
ATTORNEYS.

United States Patent Office 2,787,409 Patented Apr. 2, 1957

2,787,409

MULTI-UNIT CONTAINER

Clarence W. Vogt, Norwalk, Conn.

Application June 3, 1953, Serial No. 359,333

9 Claims. (Cl. 229—37)

This invention relates to containers for commodities and embodies, more specifically, an improved device by means of which a plurality of commodities may be secured together in such fashion that they may be readily separated and removed from the assembled group when and as desired, while at the same time enabling all of the assembled articles to be viewed.

In my copending application Serial No. 79,591, now abandoned, there is illustrated a container for a plurality of commodities by means of which all of the commodities may be viewed from one side only of the package of the assembled group. In accordance with this invention, a package is provided wherein opposite sides of each of a plurality of assembled commodities may be viewed while so assembled, thus increasing substantially the advertising and sales appeal of the commodities. Also, in applicant's copending applications Serial Nos. 144,088, now abandoned, 155,401, now Pat. No. 2,671,-731, 161,590, now abandoned, 165,784, now Pat. No. 2,676,106, 213,110, now Pat. No. 2,752,037, and 235,209, there are shown forms of chaining means for a plurality of commodities by means of which the individual commodities may be maintained in assembled position with capacity for easy separation of individual commodities from those remaining in the chained group of commodities, and this invention provides an improved structure by means of which such ease of separation is preserved while at the same time greatly enhancing the display characteristics of the package.

In accordance with the present invention, an object thereof is to provide a chaining device for a plurality of commodities by means of which a substantial reduction is permitted in the material required for the device, thus affording substantial savings over previously available devices.

Another object of the invention is to provide a device of the above character by means of which the operation of inserting commodities into the package structure is facilitated, thus enabling the packaging of commodities in multiple to be greatly simplified.

Yet another object of the invention is to provide a device of the above character wherein the removal of one or more commodities from the assembled or chained group is easily accomplished without disturbing the commodities remaining in the assembled group.

Still another object of the invention is to provide a package of the above character wherein the plurality of commodities may be viewed from opposite sides while maintained in assembled position.

Another object of the invention is to provide a device of the above character which is capable of being formed into partially assembled position and maintained in such position during the operation of inserting commodities therein.

Yet another object of this invention is to provide an improved package of the character hereinabove described and wherein supplementary sheet closure means may be incorporated.

Another object of the invention is to provide means by which a plurality of packages, each containing a plurality of components as hereinabove referred to, may be secured together in chained relationship, by means which serves to maintain each package closed.

The foregoing and other objects will be apparent as the invention is described in greater detail with reference to the accompanying drawings wherein:

Fig. 1 is a plan view of a blank formed in accordance with the present invention;

Fig. 2 is a plan view showing the container or package in partially assembled position;

Fig. 3 is a view in section taken on the plane indicated by the line 3—3 of Fig. 2 and looking in the direction of the arrows, this view showing the open position assumed by the blank when in partially assembled position and when it is ready to receive the commodities which are adapted to be enclosed or chained together by the package;

Fig. 4 is a view similar to Fig. 3 showing the articles or commodities that have been inserted into the package and illustrating the manner in which the side flaps are folded over the commodities in order to secure them within the package;

Fig. 5 is a view similar to Fig. 3 showing a plurality of packages in partially assembled and nested position;

Fig. 6 is a perspective view illustrating the manner in which a modified form of package may be formed in accordance with this invention;

Fig. 7 is a perspective view illustrating the manner in which a plurality of packages are assembled in chained relationship in accordance with the present invention; and

Fig. 8 is a view showing a further modified form of the invention utilizing a package structure such as illustrated in Figs. 1 to 3 inclusive.

Referring to the above drawings and particularly to Fig. 1, a blank is illustrated at **10**, this blank being adapted to provide a package which, in the form of the invention illustrated, comprises parts A and B, each part being adapted to receive one or a plurality of commodities, as illustrated in Fig. 4. The blank **10** includes two unsevered peripheral portions **11** and **12** and two pairs of severed peripheral portions **13**, **14**, and **15**, **16**, respectively. Side flanges **17** and **18** are hinged to the opposite sides of the unsevered peripheral portion **11** while corresponding side flanges **19**, **20**; **21**, **22**; **23**, **24**; **25**, **26**; **27**, **28**, are hinged to the corresponding sides of the respective portions **13**, **14**, **12**, **15** and **16**, as viewed from left to right in Fig. 1. Hinge folds **29**, **30** and **31** are provided between the respective portions **11**, **13**, **14**, **12**, and **12**, **15**. In order that the peripheral portions may be folded to provide a complete peripheral enclosure of the package as illustrated in Fig. 2, cuts **32** and **33** are provided between the respective peripheral portions **13**, **14** and **15**, **16**, these cuts lying in the planes of hinge folds **34** and **35** which serve to connect the respective side flaps **20**, **22** and **26**, **28** together. In this fashion, the hinge portions **34** and **35** connect the parts A and B together hingedly, as illustrated in Fig. 3, in order that these parts may be swung away from each other to permit the package to be opened up so that the filling thereof may be facilitated.

Adjacent the end of the peripheral portion **11**, a slit **36** is formed, this slit being adapted to have inserted therein a V-shaped ear **38** on a tab **37**. As illustrated in Fig. 2, when the tab **37** is folded along the line **39** and the ear **38** is inserted into the slit **36**, the ear, engaging the slit, will lock the peripheral portions in assembled relationship (see Figs. 2 and 3).

In order that the side flanges may be secured in assembled relationship, they are formed with cooperating

portions provided by a plurality of slits in order that they may be interlocked and thus maintained in assembled relationship, as illustrated in Figs. 2 and 3. For example, the side flanges **17** and **18** are provided respectively with slits **40**, **41** and **42**, **43**, the flanges **23**, **24** being provided with similar slits **44**, **45** and **46**, **47**, respectively. Slits **48** and **49** are formed in the respective side flanges **20** and **22**. Side flanges **26** and **28** are formed with the respective slits **50** and **51**, and the flaps **18**, **20**, **22**, **24**, **26** and **28** are maintained in assembled relationship by interengagement between the respective slits in the following manner. When the peripheral portions **11** and **13** are moved into assembled position, the corners of the side flanges **18** and **20** are caused to interengage, as illustrated in Fig. 2, so that the side flange **20** lies outside of the adjacent portion of the side flange **18** with its corner inserted into the angular slit **43**. When in the assembled position shown in Fig. 2, the natural resiliency of the material of the package will cause one edge of the slit **48** to engage a cooperating edge of the slit **43** to lock the flanges in their assembled position. In similar fashion, the corners of flanges **22** and **24**, and **24** and **26** are caused to inter-engage and the ear **38** is engaged with the slit **36** while the outer corner of the flange **28** is inserted into the curved slit **42** until the edge of the flange **51** reaches the position illustrated in Fig. 2. In such position, the edges of the inter-engaging slits provide an effective lock to maintain the elements in their assembled position.

In order that some play may be provided to permit the peripheral portions to diverge somewhat, as illustrated in Figs. 2 and 3, the locations of the slits hereinabove mentioned are such that a degree of movement is permitted without causing disengagement of the interlocking portions of the side flanges formed by these slits. In this fashion, when the package is filled, it is maintained in the open position illustrated in Fig. 3 and the contents are thus readily inserted without interference by any of the side flanges or peripheral walls or portions of the package.

After the contents have been inserted into the package, as illustrated in Fig. 4, the side flanges **17**, **19**, **21**, **23**, **25** and **27** are folded down into the position illustrated at the right-hand side of Fig. 4 and the corners of the flanges inter-engaged with the slits **40**, **41**, **44** and **45**. Suitable adhesive material may be utilized, if desired, to maintain the side flanges in the assembled position, and the parts A and B of the package are then moved into the fully closed position illustrated in Fig. 7, at which time the entire package becomes a flat one with the contents effectively secured therein. Suitable adhesive tape may be used to secure the abutting portions of the package together, this tape being applied either to the flanges **19**, **21** and **25**, **27** or to the outer peripheral sides of the elements **13**, **14** and **15**, **16**.

Fig. 5 illustrates the manner in which a plurality of partially assembled packages or containers may be positioned in nested relationship for convenient transportation and use, the flexibility provided by this partially assembled position greatly facilitating the transportation and use of the articles.

In Fig. 6, a package is shown, in accordance with the present invention, wherein the parts A and B are moved into contiguous back-to-back relationship with a sheet of suitable material **52** secured over the upper and side faces. A suitable adhesive may be utilized for this purpose and, in order that the contents may be displayed more effectively, the material of the sheet **52** may be transparent.

In Fig. 7, there is shown a plurality of packages assembled in chained relationship by means of adhesive tapes **53** which are preferably formed with longitudinal weakened portions such as cuts **54** and transverse cuts **55**. The cuts **55** are located, as illustrated in Fig. 7, to coincide with the planes between the respective contacting surfaces of the plurality of packages while the cuts **54** lie in the planes of the severed cuts **32** and **33**. In this fashion, when it is desired to separate one package from the remaining chained packages, the proper cuts **55** are continued by pressure of the thumbnail or the like to completely sever the tapes **53** where desired. When it is desired to remove the contents from the package, the remaining portions of the tape **53** at the side of the package are severed by similar action, which is facilitated by the cuts **54**. The parts A and B of the package can then be swung apart and the contents removed when and as desired. As an alternative, and instead of opening the package as above described, the flaps **17**, **19**, **21**, **23**, **25** or **27** may be lifted and the contents removed.

If it is desired to retain the flat style of package (generally termed "Elgin" type) as illustrated in Figs. 7 and 8, the slits **54** may be eliminated or tapes as shown in my co-pending application Serial No. 254,535 may be utilized and positioned as shown in Fig. 7. Moreover, these tapes may be applied to the sides of the packages as shown in Fig. 7, or to the ends thereof. If applied to the ends, the longitudinally extending slits are unnecessary.

In Fig. 8, the package is illustrated as having a facing sheet **56** adhered to one or both sides in order to provide an effective and complete closure for the contents. If desired, tear tapes **57** and marginal cuts **57'** may be utilized to facilitate the opening of the package, bearing in mind that the sheet **56** serves effectively to secure the package in its closed position. It will be understood that the tapes **57** and slits **57'** may also be provided with the square (commonly termed "Western" style) type of package shown in Fig. 6.

Referring again to the mechanism to facilitate loading, it is to be observed that the cut **38** is merely to provide a lock to maintain the elements in their partially assembled position during loading. After the package is loaded and the peripheral portions moved into their fully closed position, the lock disengages, as illustrated in Figs. 4 and 8.

I claim:

1. A blank adapted to be formed into a commodity package and comprising a plurality of parts, each part including a plurality of peripheral portions in end to end relation each having side flanges hinged upon opposite sides thereof, some of the portions being connected together by hinge connections between them and others of said portions being connected solely by hinged connecnectitions between adjacent portions of corresponding side flanges on one side of said other peripheral portions.

2. A blank according to claim 1 wherein the blank is formed of four peripheral portions two of which are severed intermediate their lengths into sub-portions, the hinge connections between said side flanges lying in the planes of severance between the sub-portions.

3. A blank according to claim 1 wherein the blank is formed of two parts, each part comprising one unsevered peripheral portion and at least one portion formed of a plurality of severed peripheral sub-portions, side flanges hinged to opposite sides of each peripheral portion and sub-portion, hinge connections between corresponding side flanges of adjacent peripheral sub-portions, and means to connect the end of one of the unsevered peripheral portions to the end of one of the severed peripheral sub-portions.

4. A blank according to claim 3 wherein means is provided to secure the side flanges in parallel planes extending inwardly and lying at right angles to the planes of the respective peripheral portions.

5. A commodity package comprising a plurality of parts, each part having at least one peripheral sidewall portion to which are hinged oppositely extending top and bottom flanges, means to secure the parts together in continguous relationship with the peripheral portions

forming a peripheral package enclosure, and means to secure the side flanges in spaced substantially parallel planes overlapping portions of commodities within the package, two opposite sidewalls of said enclosure and the corresponding top flanges having aligned transverse slits thereacross, the corresponding bottom flange being foldable in alignment with said slits to form a hinge connecting the sidewalls having the slits therein.

6. A package according to claim 5 comprising adhesive tape spanning said slits and adhered to the sidewalls having the slits therein.

7. As an article of manufacture, a plurality of packages as defined in claim 5 assembled in contiguous relationship, and at least two adhesive tapes adhered to the outer surfaces of the peripheral portions of certain of the sides of the assembled packages, each of the tapes having weakened portions spaced longitudinally thereof a distance equal to the width of the peripheral portions and extending transversely of the tapes.

8. An article of manufacture according to claim 7 wherein a plurality of weakened portions are formed in each of the tapes longitudinally thereof, intermediate the sides thereof and intersecting the first-mentioned weakened portions.

9. An article according to claim 7 wherein the tapes serve not only as means for chaining a plurality of packages together but additionally are adhered to portions of each of the packages to serve as closure means therefor.

References Cited in the file of this patent

UNITED STATES PATENTS

910,180	Davidson	Jan. 19, 1909
1,124,875	Dishmaker	Jan. 12, 1915
1,311,541	Tomlinson	July 29, 1919
1,587,280	Burke	June 1, 1926
2,106,748	Karnes	Feb. 1, 1938
2,124,699	Harrington	July 26, 1938
2,287,729	Fallert	June 23, 1942
2,395,558	Lighter	Feb. 26, 1946
2,456,059	Grupe	Dec. 14, 1948
2,594,628	Evans	Apr. 29, 1952