

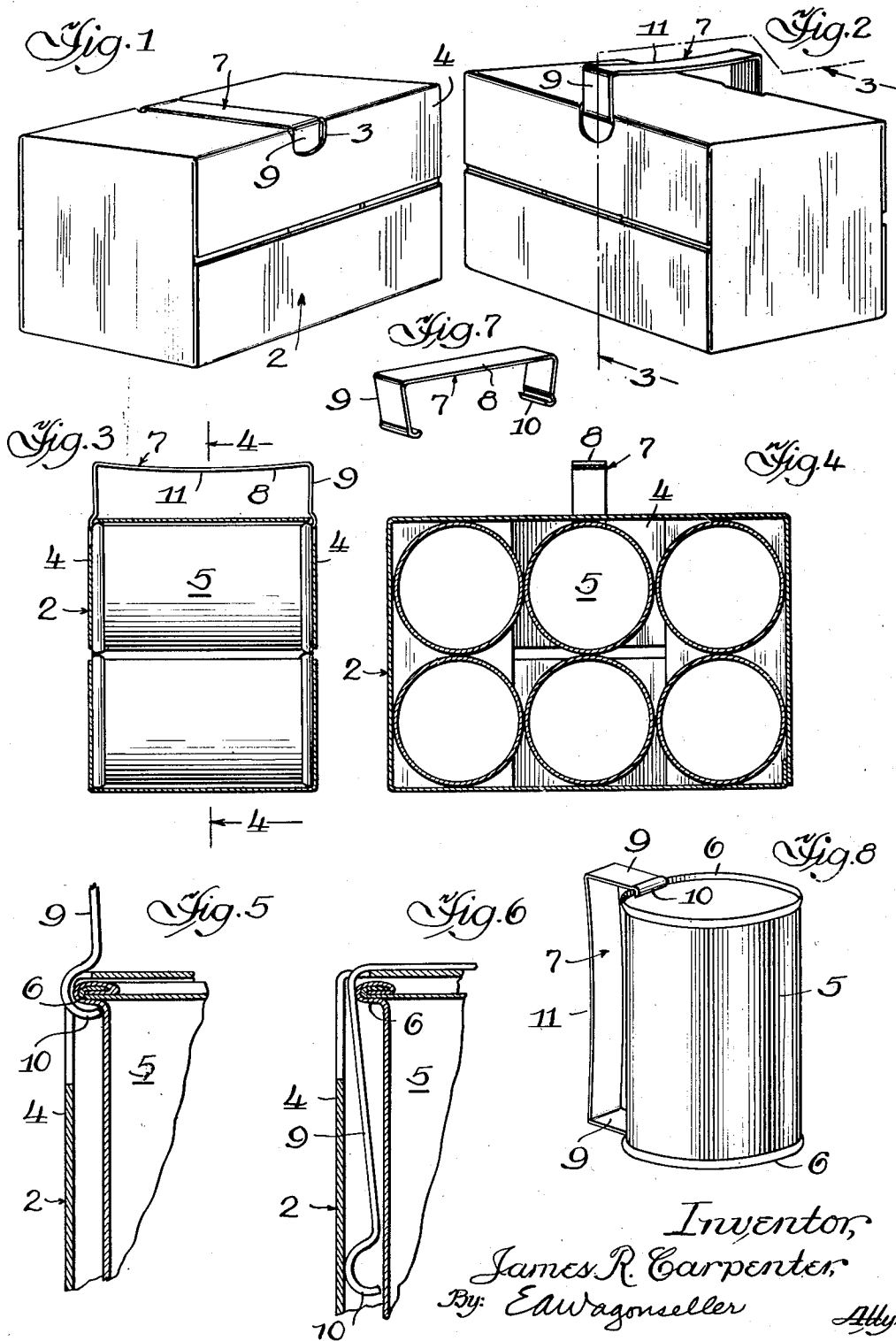
Oct. 6, 1953

J. R. CARPENTER
CAN PACKAGE WITH HANDLE

2,654,475

Filed Nov. 14, 1950

2 Sheets-Sheet 1



Inventor,
James R. Carpenter
By: Edwagonseller
Atty.

Oct. 6, 1953

J. R. CARPENTER
CAN PACKAGE WITH HANDLE

2,654,475

Filed Nov. 14, 1950

2 Sheets-Sheet 2

Fig. 9

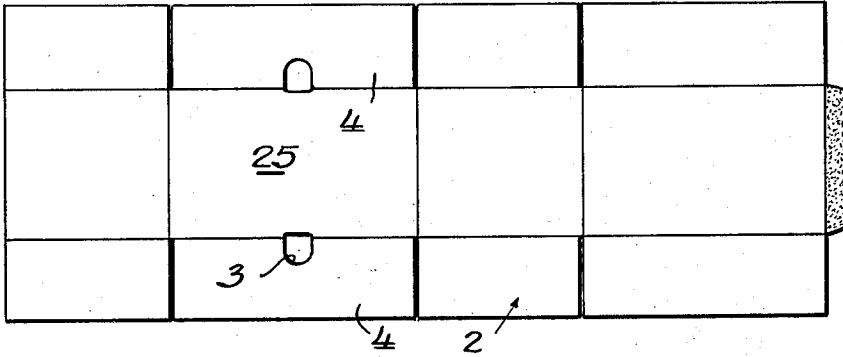


Fig. 10

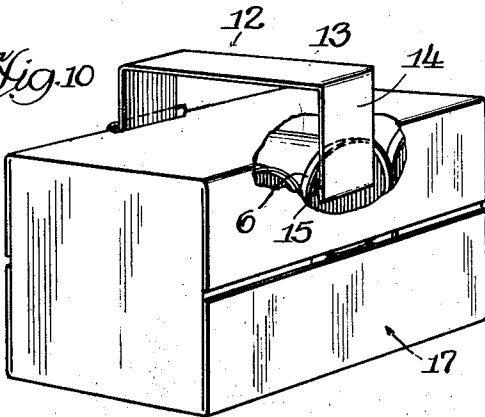


Fig. 11

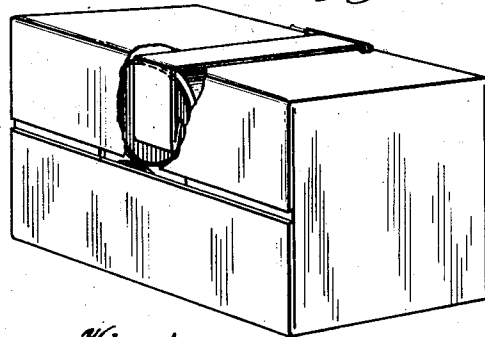


Fig. 15

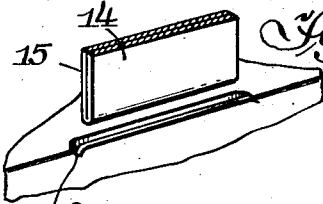


Fig. 14

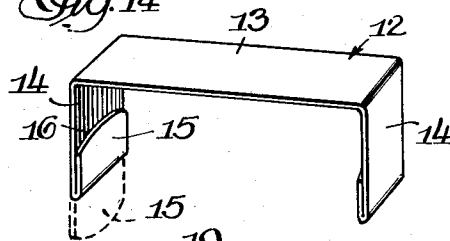


Fig. 16

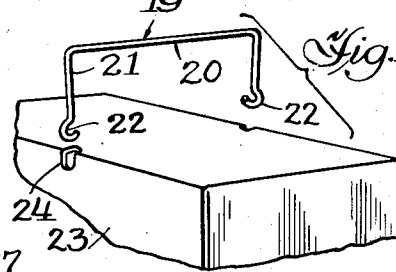


Fig. 12

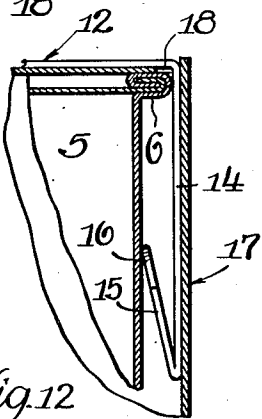
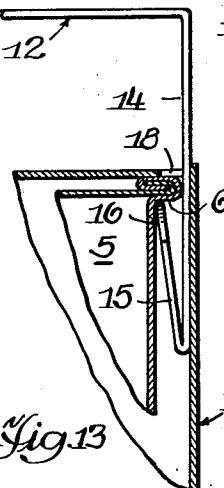


Fig. 13



Inventor,
James R. Carpenter,
By: Edwagonseller
Att'y

UNITED STATES PATENT OFFICE

2,654,475

CAN PACKAGE WITH HANDLE

James R. Carpenter, Fort Worth, Tex., assignor
to Container Corporation of America, Chicago,
Ill., a corporation of Delaware

Application November 14, 1950, Serial No. 195,581

2 Claims. (Cl. 206—65)

1

The present invention relates to a package comprising a plurality of cans packed in a carton and provided with a convenient carrying handle.

The invention is concerned primarily with means for permitting the easy application of a carrying handle to a carton which is sealed or otherwise closed containing a plurality of flanged cans. The handle utilized for this purpose may, after it has been removed from the package, be applied in some cases to an individual can to provide convenient holding means therefor.

It is an object of this invention to provide a simple, inexpensive handle that may be easily applied to a package of the type referred to, and may be extended to serve as a carrying handle, or pushed substantially flat against the surface of the package so that a plurality of the packages, with the handles attached, may be stacked or packed into large containers for shipment.

Other and further objects and advantages of the invention will become apparent upon reading the following description, taken in conjunction with the accompanying drawings showing a preferred illustrative embodiment of the invention, in which:

Fig. 1 is a perspective view of a package and carrying handle embodying the invention, showing the carrying handle in down or shipping position;

Fig. 2 is a perspective view, similar to Fig. 1, showing the handle in raised or carrying position;

Fig. 3 is a cross sectional view, taken along the line 3—3 of Fig. 2;

Fig. 4 is a cross sectional view, taken along the line 4—4 of Fig. 3;

Fig. 5 is an enlarged fragmentary cross sectional view showing the end of the carrying handle in engagement with the flange of one of the cans of the package;

Fig. 6 is a view, similar to Fig. 5, showing the carrying handle in its down position;

Fig. 7 is a detail perspective view of one embodiment of the carrying handle;

Fig. 8 is a detail perspective view showing the handle engaged with flanges on the opposite ends of a can;

Fig. 9 is a plan view of the blank from which the carton is made, showing the openings through which the ends of the handle project;

Fig. 10 is a perspective view of a package showing another embodiment of the carrying handle in carrying position, with a portion of the carton broken away to facilitate illustration of the engagement of one end of the handle with the flange of a can inside the carton;

2

Fig. 11 is a perspective view of the package showing the handle of Fig. 10 in its down position;

Fig. 12 is an enlarged fragmentary cross sectional view showing the handle of Fig. 10 in its down position;

Fig. 13 is a view, similar to Fig. 12, showing the handle in raised position;

Fig. 14 is a detail perspective view of the carrying handle of Fig. 10;

Fig. 15 is a fragmentary perspective view showing the manner of inserting the end of the handle of Fig. 10 through the carton; and

Fig. 16 is a fragmentary perspective view showing another embodiment of the carrying handle just before it is inserted through the carton.

Referring to the drawings, the reference numeral 2 indicates a carton conventional in all respects except for a pair of aligned openings 3 arranged centrally of the wall portions 4 adjacent the carton wall 25. A plurality of cans 5, each of which is provided with a circumferential flange 6 at its top and bottom ends, is packed in the carton, and the carton is sealed or otherwise closed in conventional fashion. The cans are disposed transversely of the carton so that flanges 6 of the center can in one row are positioned adjacent the openings 3. The number of cans packed in a carton may vary, but one can should be arranged with its flanges positioned adjacent the openings 3.

A carrying handle 7, made of a single flat resilient strip of metal comprises a bridge portion 8, and a pair of end portions 9 each bent from the bridge portion through an angle slightly greater than 90°. The length of the bridge portion is approximately equal to the height of the can for which the handle is designed, and the angularity or inset of end portions 9 makes it necessary for those end portions to be spread slightly when they are engaged with the ends of a can 5. A lip 10 is formed on the end of each end portion 9 by curling the end inwardly.

After the package has been sealed, the handle 7 is secured in place by merely spreading the ends 9 slightly and inserting them through the openings 3 to engage the opposite ends of the can 5 positioned adjacent the openings. The spreading of the ends 9 causes the center of the bridge portion 8 to bow slightly towards the side of the can, as indicated at 11, in Figs. 2, 3, and 8. The openings may be of any suitable size, but for the sake of neatness it is preferred to make them approximately the same width as the width of the handle 7. After the ends of the handle are engaged with the opposite ends of the can 5 in

3

the package, the handle is pushed down to the position shown in Fig. 1 where it is out of the way and will not interfere with stacking a plurality of the packages in superposed relation. It is obvious that the handles may also be packed and shipped separately to the retailer who may apply them to the packages as required.

When it is desired to use the handle for carrying the package, the user lifts the bridge portion 2 to raise the handle to its carrying position. In this position the lips 10 engage flanges 6 and the weight of the package urges the lips 10 inwardly because of the slight bow 11 imparted to the bridge portion 2 of the handle when the ends 9 are spread apart, and the lips 10 are firmly held in contact with the flanges 6.

After the package has reached its ultimate destination, the consumer may detachably secure the handle to the individual cans, as indicated in Fig. 8, and use it as a regular handle.

In the embodiment of the invention illustrated in Figs. 10 to 15, inclusive, a handle 12 formed of a single strip of paperboard has a central bridge portion 13 from which two end portions 14 extend. A flap 15 is folded inwardly from each end portion 14. The free edge of each flap 15 is rounded, as indicated at 16, to conform to the circumferential curvature of the end of can 5. The carton 17 is similar to carton 2 except that the openings 18 are in the form of slots so narrow that the flap 15 must be pressed against the inner surface of the end portion 14 when the ends of the handle are inserted into the carton. The inherent resilience of the paperboard causes the flap 15 to spring away from the end portion 14, as shown in Figs. 12 and 13, as soon as the flap is clear of the edges of the opening 18. This resiliency causes the flaps 15 to engage the ends of the cans 5, so that when the handle is raised to its carrying position the edges 16 will engage the inner radius of the flanges 6 and provide firm support for the handle so that it may sustain the weight of the package to which it is secured. As in the previous embodiment, the bridge portion 13 of the handle fits substantially flat against the top of the package when in its down position so that the packages may be stacked in superposed relationship.

The embodiment of Fig. 16 is essentially the same as that of Figs. 1 to 9 except that the handle 19 is made of a length of wire bent to form a bridge portion 20, end portions 21, and intumed lips 22. The carton 23 is provided with small openings 24 positioned in the same relative position as the openings 3 or 18 in the cartons using the other embodiments of the handle. The wire of which the handle 19 is made must be fairly stiff, and heavy enough to support the weight of the package to which it is secured.

While the present invention sets forth a few preferred embodiments of the invention in considerable detail, certain changes may be made in the construction without departing from the spirit of the invention, and it is therefore desired that the present embodiments be considered in all respects as illustrative, and not restrictive, reference being had to the appended claims

4

rather than to the foregoing description to indicate the scope of the invention.

I claim:

1. A package comprising a carton, a plurality of cans packed in the carton, each of the cans having a circumferentially disposed flange at each end, a pair of openings in the carton adjacent opposite ends of one of the cans packed therein, and a detachable carrying handle comprising a strip of paperboard having its end portions projecting through the openings, and flaps on the end portions of the paperboard strip reversely bent inwardly and upwardly against the strip to engage the inner radius of the flange at each end of the can positioned adjacent the openings.

2. A package unit consisting of a plurality of cans enclosed within the surrounding walls of a paperboard carton and a carrying handle associated with one of the cans and the carton walls as a part of the package unit, said carton walls including a top wall and substantially opposite side wall parts extending downwardly from opposite side edges of said top wall, said side wall parts also extending across the opposite ends of said one can, each said end of said one can having a flange thereon projecting toward and into close proximity to the adjacent one of said opposite wall parts, said carton top wall having a pair of spaced slots therethrough, there being one slot adjacent to each of said ends of said one can, said handle including a grip part extending along said top wall across the space between said slots on the exterior of the package, an angularly disposed part depending from the grip part at each end of the latter and disposed through the adjacent slot and across the said flange of the adjacent end of said one can, and a can flange hooking portion on each of said angularly disposed parts and so disposed as to underlie the adjacent can end flange for hooking engagement therewith, said opposite wall parts serving to constrain said handle depending parts thereby to tend to hold said hooking portions in positions for engaging said flanges, the length of each of said angularly disposed parts between the grip part and the hooking portion being substantially greater than the perpendicular distance between the exterior face of the said top wall adjacent to said handle grip part and the adjacent one of said can end flanges, said handle being composed of a strip of paperboard the ends of which are folded back upon the inner side of the strip to provide the hooking portion.

JAMES R. CARPENTER.

References Cited in the file of this patent

UNITED STATES PATENTS			
Number	Name	Date	
2,040,209	Levyne	May 12, 1936	
2,179,555	Kells	Nov. 14, 1939	
2,284,989	Rue	June 2, 1942	
2,290,971	King	July 28, 1942	
2,313,731	Brogden	Mar. 16, 1943	
2,424,094	Herr	July 15, 1947	