Feb. 25, 1936. T. A. KUNDTS 2,031,963

CARTON

Filed Sept. 19, 1935 2 Sheets-Sheet 1

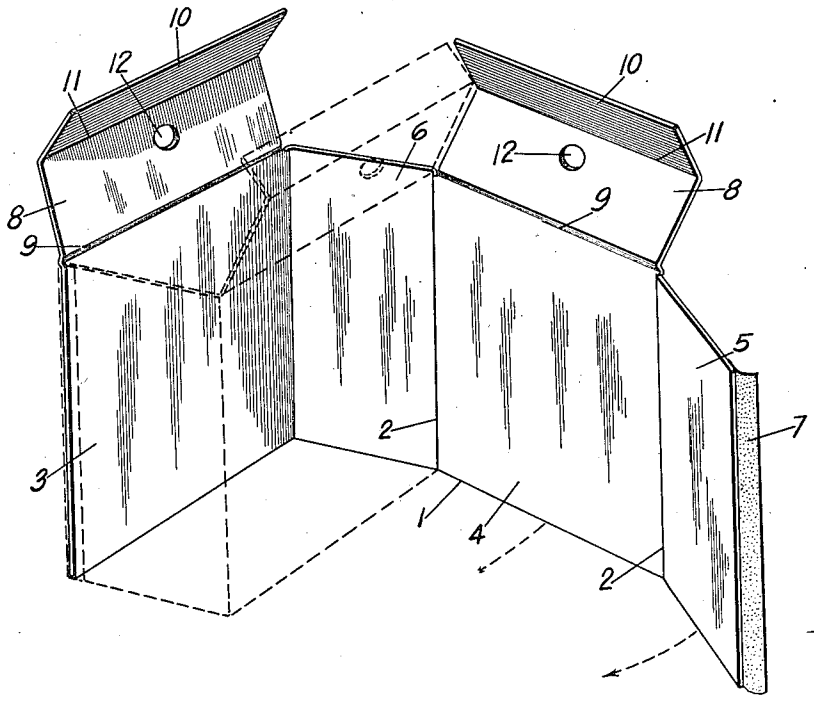


Fig. 1

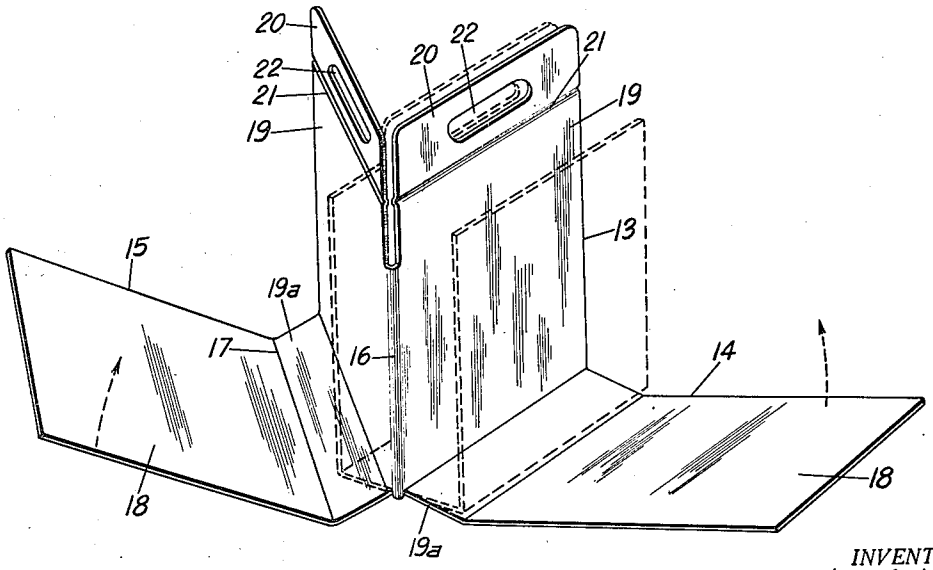


Fig. 2

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CARTON

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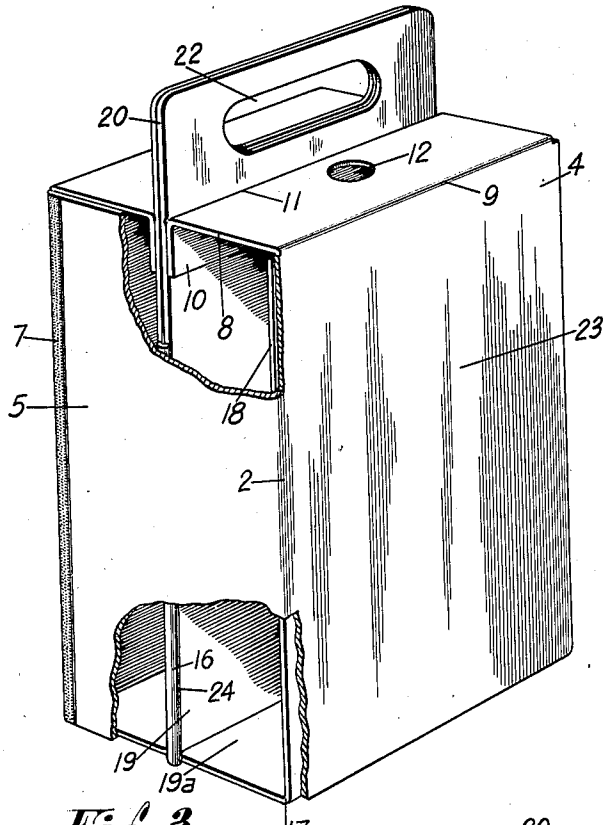


Fig. 3

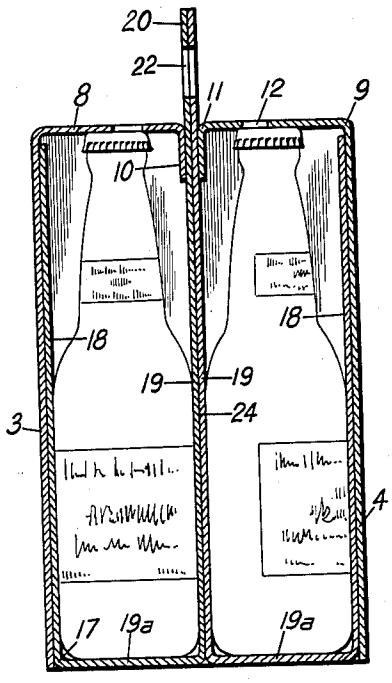


Fig. 4

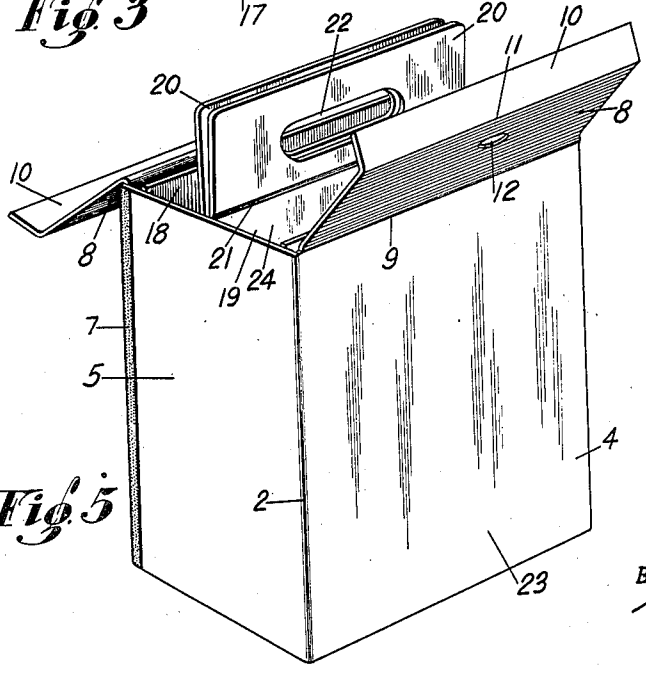


Fig. 5

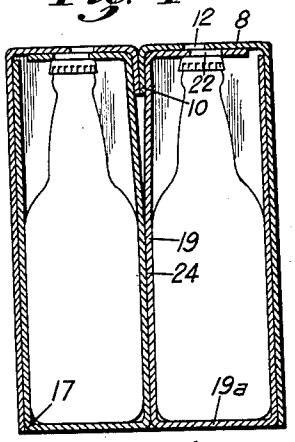


Fig. 6

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Patented Feb. 25, 1936

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UNITED STATES PATENT OFFICE

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CARTON

Theodore A. Kundts, Columbus, Ohio, assignor to The Federal Glass Company, Columbus, Ohio, a corporation of Ohio

Application September 19, 1935, Serial No. 41,279

5 Claims. (Cl. 229—27)

My invention relates to a carton. It has to do, more specifically, with that type of carton which is particularly useful for carrying a number of bottles, such as beer-bottles, and which is provided with a handle for facilitating carrying of the carton.

There have been a number of cartons devised in the past of the general type indicated. One type has been made from a single blank of straw-board, pasteboard, fibreboard or the like. Another type has been made from a plurality of blanks of such material and has consisted of an outer casing and an inner handle unit. This latter type of carton is the most suitable because it is much easier to make, requires less material, can be packed and shipped in large quantities in collapsed condition and can be readily assembled. However, this type of carton, as it has been constructed heretofore, has been possessed of certain undesirable features. In the past, the inner handle unit and the outer casing have been so constructed and assembled that there is a tendency for the handle unit to accidentally pull out of the outer casing, which would cause breakage of the bottles contained in the carton. Another disadvantage of prior art cartons of this general type resides in the fact that the inner unit is usually made of a number of blanks which tend to become displaced relative to each other or which must be joined by staples or the like which increases the manufacturing cost of the carton.

One of the objects of my invention is to provide a carton of the general type indicated embodying an outer casing and an inner handle unit which are so constructed and disposed relative to each other that there is no danger of the handle unit pulling out of the outer casing when the carton is being used for carrying the articles which it is adapted to contain.

Another object of my invention is to provide a carton which is made of an outer casing unit and an inner handle unit, the outer unit and the inner unit each being made from a single blank of material so that the carton may be easily and cheaply manufactured and assembled.

Various other objects and advantages will be apparent from the following description.

The preferred embodiment of my invention is illustrated in the accompanying drawings wherein similar characters of reference designate corresponding parts and wherein:

Figure 1 is a view of the blank which is adapted to form the outer casing unit of my carton and illustrating by the dotted lines how it is to be assembled.

Figure 2 is a similar view showing the inner handle unit of my carton and illustrating by the dotted lines how it is adapted to be folded before being placed in the outer unit.

Figure 3 is a perspective view, partly broken away, of the complete carton after it has been assembled, showing the handle portion projecting therefrom and the cover flaps tucked in to close the upper end of the carton.

Figure 4 is a vertical section taken through the carton illustrated in Figure 3 and showing how beer-bottles may be positioned therein.

Figure 5 is a view similar to Figure 3 but showing the cover flaps swung into open position to permit removal of the bottles.

Figure 6 is a sectional view similar to Figure 4 but on a smaller scale showing the carton in the preferred condition for shipping or stacking.

With reference to the drawings, in Figure 1 I have illustrated a single blank 1 which is adapted to form the outer casing of my carton. This blank 1 is scored and folded along the lines 2 to form vertical side walls 3 and 4 and vertical end walls 5 and 6. The blank is adapted to be folded in the manner indicated by the dotted lines in Figure 1 so that the edge of the wall 5 meets the edge of the wall 3. The adjacent edges of these walls may be secured together by a strip 7 of adhesive tape, or in any other suitable manner. Each of the side walls 3 and 4 carries a cover flap 8 at its upper edge. This cover flap is part of the blank 1, being connected hingedly to the side wall by a scored and folded joint 9. The cover flap 8 has an extension 10 connected thereto along a scored and folded line 11. The main portion of the cover flap is provided with an opening 12 through which the finger may be inserted, for purpose to be explained later.

In Figure 2 I illustrate a single blank 13 from which the inner or handle unit is adapted to be formed. This blank is cut, scored and folded in such a manner that two sections 14 and 15 are formed therefrom and are connected together by a hinge joint 16. Each section is scored and folded along the lines 17 to form an outer side wall portion 18 and an inner side wall portion 19 joined together by a bottom portion 19a. Each side wall portion 19 has a handle flap 20 connected to its upper end by a hinge joint 21. Each handle flap 20 has a slot 22 formed therein through which the fingers may be passed. The inner handle unit is formed from a single blank, as previously described, and before it is positioned in the outer

unit it is adapted to be folded in the manner illustrated by the dotted lines in Figure 2. It is folded in such a manner that the inner side wall portions 19 lie back-to-back and the outer side wall portions 18 lie substantially parallel thereto.

When the inner handle unit is folded in this manner, as illustrated by the dotted lines in Figure 2, it is inserted in the outer casing which is previously assembled in the manner indicated by the dotted lines in Figure 1. This produces the carton illustrated in Figures 3 to 6, which comprises an outer casing unit 23 and an inner handle unit 24. The handle unit is so positioned in the outer unit that the inner walls 19 thereof form a centrally disposed vertical partition which divides the carton into two chambers in which the bottles are placed as indicated in Figure 4 and lessens the danger of breakage. The outer side walls 18 of the handle unit will lie against the side walls 3 and 4 of the outer casing unit. The upper edges of the walls 18 of the handle unit will always be positioned beneath the cover flaps 8 and will contact therewith directly adjacent the points where the cover flaps are connected to the side walls of the outer casing. Consequently, there will never be any danger of the inner handle unit 24 slipping upwardly out of the outer casing unit 23 when the carton is being used for carrying bottles or other articles.

When the carton is being used for carrying articles, it will appear as in Figures 3 and 4 wherein the handle flaps project upwardly and the cover flaps are folded downwardly with the extensions 10 thereof tucked in at each side of the partition formed by the walls 19. The slots 22 in the handle flaps 20 coincide with each other so that the fingers may be extended therethrough. Thus, the carton has an upwardly projecting handle member which may be readily gripped in order to carry the carton. The cover flaps 8 cover the upper end of the carton so that the contents thereof cannot be seen. The cover flaps also, as previously stated, serve to prevent the inner handle unit from pulling upwardly out of the outer casing unit, since the upper edges of walls 18 will contact with the under surface of the flaps 8 adjacent the points where they are connected to the side walls 3 and 4 of the outer unit. The extension 10 on each cover flap 8 is connected thereto at such a point that the extension will frictionally engage the vertical partition member, formed by walls 19, on opposite sides thereof so that the cover flaps will normally be firmly held in the positions indicated in Figure 4. However, the cover flaps may be swung to the position indicated in Figure 5 by inserting the fingers through the openings 12 to permit removal of the bottles.

If the carton is to be used for shipping purposes or if it is desired to stack the cartons, it should be in the condition illustrated in Figure 6. The handle flaps 20 are swung downwardly and the cover flaps are swung inwardly over the flaps 20 with the extensions 10 on the cover flaps being inserted between the walls 19 which will frictionally engage them and hold them in position. In this condition a flat top will be provided which will not interfere with stacking of the cartons.

It will be understood from the above description that I have provided a carton having a number of desirable features not possessed by prior art cartons of this general type. It embodies an outer casing unit and an inner handle unit which are so constructed and so disposed relative to each other that there is no danger of the handle unit accidentally pulling out of the outer unit when the carton is being used for carrying the articles, which it is adapted to contain, and the handle member is being employed. The outer unit and also the inner unit are each made from a single blank of material and, consequently, the carton may be easily made by die-cutting and there will be no wastage of material. Furthermore, the carton may be readily assembled.

Having thus described my invention, what I claim is:

1. In a carton of the type described, an outer casing unit made of a single blank of material which is cut and folded to form vertically disposed side walls and end walls joined together, with cover flaps hingedly connected to the upper edges of the side walls, the bottom of said outer casing being open, each of said cover flaps having a hinged extension thereon and an opening in the main portion thereof through which the finger may be passed, and an inner unit made from a single blank of material which is so cut and folded as to form two identical sections each of which is folded to form inner and outer side walls connected together by a bottom portion, each inner side wall having a handle flap hinged to its upper edge with a slot formed therein through which the fingers may be inserted, the two sections of the inner unit being hinged together and being folded back-to-back so that the inner side walls of the two sections will lie in contact with each other and the handle flaps on the upper ends thereof will lie adjacent each other with the slots formed therein coinciding with each other, the outer side wall of each section being folded upwardly into substantially parallel relation with the inner side wall thereof, and the inner unit being slipped into the outer unit in such a manner that the outer side walls of the inner unit will lie adjacent the side walls of the outer unit and the adjacent inner side walls of the inner unit will form a vertically disposed partition.

2. In a carton of the type described, an outer casing unit made of a single blank of material which is cut and folded to form vertically disposed side walls and end walls joined together, with cover flaps hingedly connected to the upper edges of the side walls, the bottom of said outer casing being open, each of said cover flaps having a hinged extension thereon, and an inner unit made from a single blank of material which is so cut and folded as to form two identical sections each of which is folded to form inner and outer side walls connected together by a bottom portion, each inner side wall having a handle flap hinged to its upper edge, the two sections of the inner unit being hinged together and being folded back-to-back so that the inner side walls of the two sections will lie adjacent each other and the handle flaps on the upper ends thereof will lie adjacent each other, the outer side wall of each section being folded upwardly into substantially parallel relation with the inner side wall thereof, and the inner unit being slipped into the outer unit in such a manner that the outer side walls of the inner unit will lie adjacent the side walls of the outer unit and the adjacent inner side walls of the inner unit will form a vertically disposed partition.

3. In a carton of the type described, an outer casing unit made of a single blank of material which is cut and folded to form vertically disposed side walls and end walls joined together, with cover flaps hingedly connected to the upper

edges of the side walls, and an inner unit made from a single blank of material which is so cut and folded as to form two identical sections each of which is folded to form inner and outer side walls connected together by a bottom portion, each inner side wall having a handle portion at its upper edge, the two sections of the inner unit being hinged together and being folded back-to-back so that the inner side walls of the two sections will lie adjacent each other and the handle portions on the upper ends thereof will lie adjacent each other, the outer side walls of each section being folded upwardly into substantially parallel relation with the inner side wall thereof, and the inner unit being slipped into the outer unit in such a manner that the outer side walls of the inner unit will lie adjacent the side walls of the outer unit and the adjacent inner side walls of the inner unit will form a vertically disposed partition.

4. In a carton of the type described, an outer casing unit, and an inner handle unit inserted into the outer casing unit, said inner handle unit having side walls which lie adjacent the corresponding side walls of the outer casing unit, said outer casing unit having cover flaps hingedly connected to said side walls thereof which close the upper end of the carton when they are in substantially horizontal position, the upper edges of the said side walls of the inner handle unit being disposed beneath said cover flaps when they are in closed position and contacting therewith to prevent the handle portion from being pulled upwardly out of the outer casing unit.

5. In a carton of the type described, an outer casing unit, and an inner handle unit made from a single blank of material which is so cut and folded as to form two identical sections each of which is folded to form inner and outer side walls connected together by a bottom portion, each inner side wall having a handle flap hinged to its upper edge, the two sections of the inner unit being hinged together and being folded back-to-back so that the inner side walls of the two sections will lie adjacent each other and the handle flaps on the upper ends thereof will lie adjacent each other, the outer side wall of each section being folded upwardly into substantially parallel relation with the inner side wall thereof, and the inner unit being slipped into the outer unit.

THEODORE A. KUNDTS.