July 2, 1957 H. R. JAESCHKE 2,797,856

HANDLED CARTONS

Filed Jan. 2, 1953 2 Sheets-Sheet 1

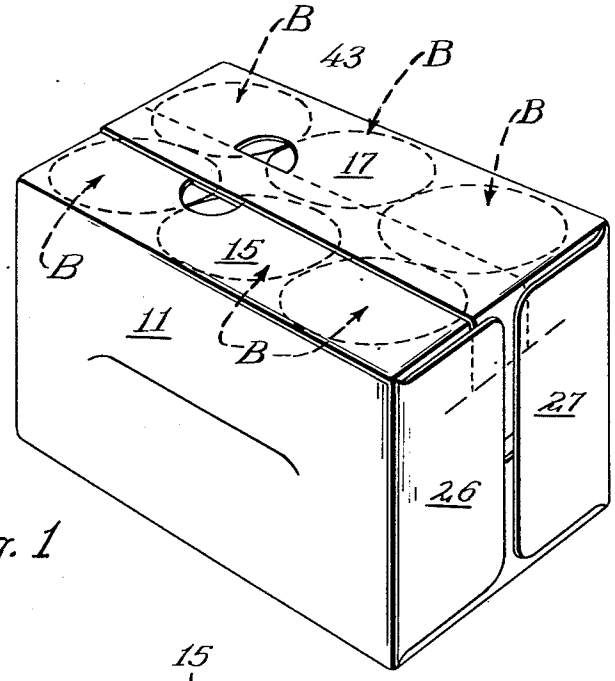


Fig. 1

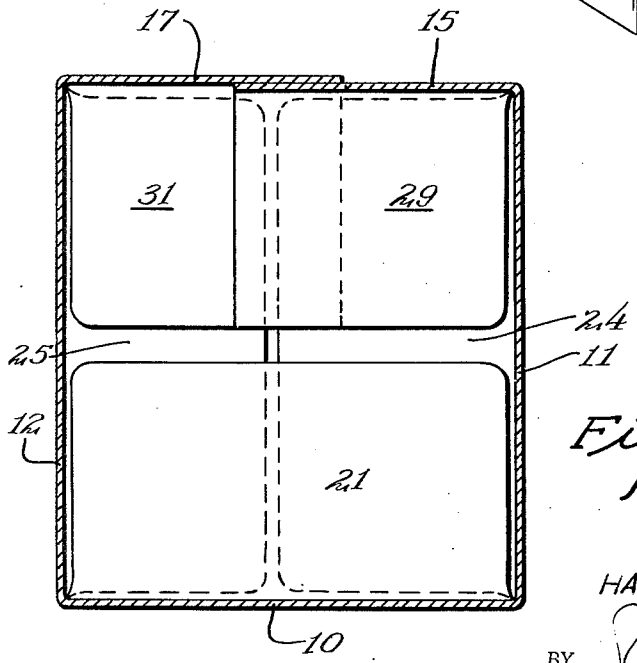


Fig. 2

INVENTOR

HAROLD R. JAESCHKE

BY Robert M. Dunning

ATTORNEY

July 2, 1957 H. R. JAESCHKE 2,797,856

HANDLED CARTONS

Filed Jan. 2, 1953 2 Sheets-Sheet 2

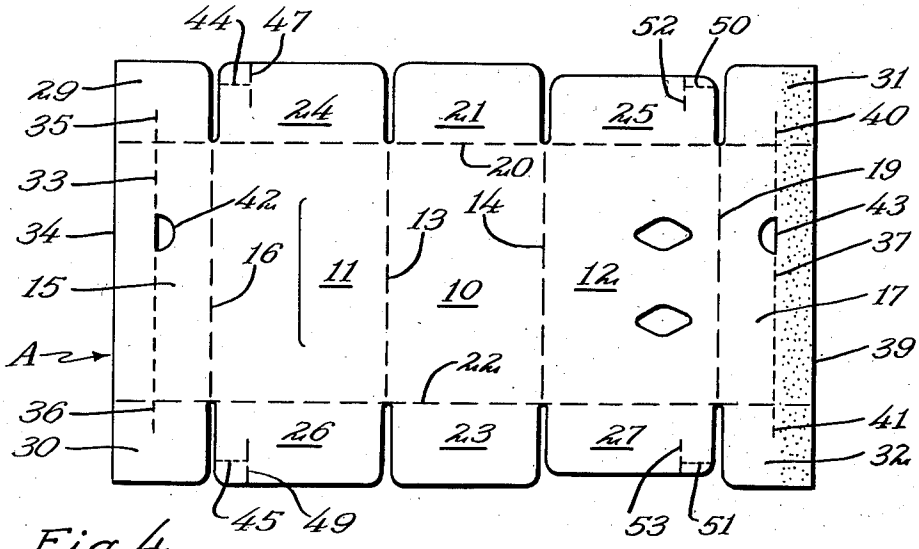


Fig. 4

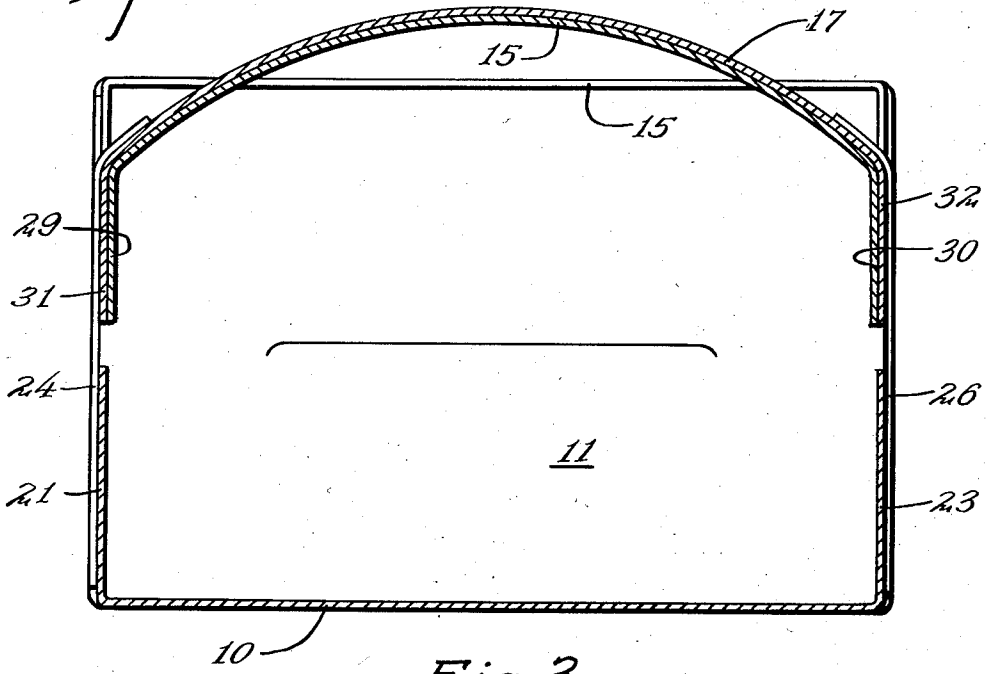


Fig. 3

INVENTOR

Harold R. Jaeschke

BY Robert M. Dunning

ATTORNEY

United States Patent Office

2,797,856

Patented July 2, 1957

2,797,856

HANDLED CARTONS

Harold R. Jaeschke, Milwaukee, Wis., assignor to Waldorf Paper Products Company, St. Paul, Minn., a corporation of Minnesota

Application January 2, 1953, Serial No. 329,159½

1 Claim. (Cl. 229—52)

This invention relates to an improvement in handled cartons and deals particularly with a carton provided with a handle by means of which the carton may be carried.

During recent years it has become common practice to contain a series of cans in a paperboard carton so that the cans may be easily carried. Handles of various types have been provided for carrying the cartons. Certain of these cartons have been provided with a strap handle extending across one complete panel and into portions of the adjoining panels. While such handles have been extremely popular and successful in operation the cartons must be made of substantial strength in order to prevent breakage of the handle when carrying heavy products. As cartons of this type are often used to contain six cans of beer, a considerable weight is often involved.

A feature of the present invention resides in the provision of a handled carton which is somewhat stronger than previous cartons of the same general type. While the carton is constructed of relatively light paperboard, the handle is formed of two thicknesses of the board, thus considerably strengthening the same.

A feature of the present invention lies in the provision of a handled carton which includes a handle composed of two thicknesses of paperboard adhered together. Two thicknesses of board secured together are ordinarily stronger than a single layer of material of equal thickness to the two layers. Therefore the handle thus produced is extremely strong.

An added feature of the present invention lies in the provision of a carton having a strap handle of double thickness which is formed of the paperboard of the carton and which does not require the addition of extra stock. This feature is of importance due to the competitive nature of such cartons.

A further feature of the present invention resides in the provision of a paperboard carton having a strap handle connected to the paperboard along weakened lines of separation and which may be folded out of the planes of the various walls to form an upwardly bowed handle. In spite of the fact that the handle is formed of two thicknesses of paperboard, the weakened lines of separation along each edge of the handle extends through only one thickness of board, therefore making the handle as simple to produce as strip handles composed of a single thickness of paperboard.

These and other objects and novel features of my invention will be more clearly and fully set forth in the following specification and claims.

In the drawings forming a part of the specification:

Figure 1 is a perspective view of the carton in closed condition.

Figure 2 is a sectional view through the closed carton showing the manner in which the handle is formed of double thickness.

Figure 3 is a longitudinal sectional view through the closed carton.

Figure 4 is a diagrammatic view of the blank of which the carton is formed.

The carton is indicated in general by the letter A. The carton includes three rectangular walls including a bottom wall 10, a side wall 11, and a side wall 12. The side walls 11 and 12 are hingedly connected to the bottom panel 10 along parallel fold lines 13 and 14. A top panel 15 is hingedly connected to the wall panel 11 along fold line 16. A second top panel 17 is hingedly connected to the wall panel 12 along a fold line 19. The panels 15 and 17 are of proper width to overlap near the center of the top wall, each panel extending past the center line a predetermined distance.

The various wall panels are provided with end closing flaps designed to form end closures for the carton. The bottom panel 10 is connected along the fold line 20 to a flap 21 and along the fold line 22 to a flap 23. Flaps 24 and 25 are connected to the wall panels 11 and 12 along the fold line 20, while end flaps 26 and 27 are also connected to these wall panels along the fold line 22. End flaps 29 and 30 are hingedly connected to opposite ends of the top panel 15 and similar end flaps 31 and 32 are hingedly connected to opposite ends of the top panel 17.

The top panel 17 is provided with a weakened line of separation 33 extending parallel to the fold line 16 and spaced from the edge 34 of the panel a distance substantially equal or slightly greater than the amount of overlap between the top panels 15 and 17. The weakened line of separation 33 is provided with an extension 35 in the end flap 29 and an extension 36 in the end flap 30.

A second weakened line of separation 37 extends across the top panel 17 parallel to the fold line 19. The line 37 is spaced from the edge 39 of the panel a distance substantially equal or slightly greater than the amount of overlap between the top panels 15 and 17. The weakened line 37 is provided with an extension 40 extending into the end flap 31 and an extension 41 in the end flap 32. A semi-circular aperture 42 is provided in the panel 15 adjoining the weakened line 33 and between this line and the fold line 16. A similar semi-circular aperture 43 is provided in the portion of the top panel 17 between the weakened line 37 and the fold line 19 and adjoining the weakened line. These semi-circular apertures are in the particular construction illustrated, located a distance from the fold line 20 equal to one-third the distance between the fold lines 20 and 22. This arrangement is made as the container is designed to contain six cans B which are arranged in two parallel rows of three cans each. By locating the apertures 42 and 43 in the manner described the apertures are located at the juncture between cans permitting the fingers to be more readily inserted into the carton on opposite sides of the area defined by the fold lines.

When the carton is glued in tubular form, the area between the weakened line 33 and the adjacent edge 37 of the panel 15 overlaps the area between the weakened line 37 and the adjacent edge 39. Therefore the portion between the fold lines in tubular form of the carton is of double thickness while the remainder of the carton is of single thickness. It is normal practice to provide an overlapping glue flap connecting the panels of the carton into tubular formation and in the present case the overlapping portions extend centrally across the top of the carton.

In closing the ends of the carton the end flaps 21 and the combined end flaps 29 and 31 are folded into substantially a common plane and the flaps 24 and 25 are then folded to overlie the first folded flaps. Similarly at the other end of the carton the combined flaps 30 and 32 are folded into a common plane with the flap 23 and the flaps 26 and 27 are then folded to overlie the previ-

ously folded flaps. Adhesive is provided between the flaps to close the ends of the carton.

In order that the adherence between the end flaps of the carton may not prevent the operation of the handle strap, weakened lines 44 and 45 are provided in the panels 24 and 26, respectively which align with the fold line extensions 35 and 36 of the end flaps 29 and 30. Transverse score lines 47 and 49 are provided at the extremities of the weakened lines 44 and 45 to simplify the inward folding of the flap portions outwardly of the weakened lines. Similar weakened lines 50 and 51 are provided in the end flaps 25 and 27 to register with the weakened line extensions 40 and 41 of the closing flaps 31 and 32, respectively. Score lines 52 and 53 extending at right angles to the weakened line connect these weakened lines with the adjacent ends of their respective flaps.

When the carton has been formed, filled and sealed, it appears as best illustrated in Figure 1 of the drawings. When it is desired to use the handle of the carton, the fingers are inserted through the apertures 42 and 43 to engage opposite sides of the area between the weakened lines. By pulling upwardly on this area, the strap like body may be pulled upwardly so as to bow above the top of the carton as indicated in Figure 3 of the drawings. When thus folded the handle forms a double thickness strap which is connected to double thickness anchoring portions at each end of the carton. The portions of the strap located within the end panels may either break away from the exterior end flaps or may draw portions of them inwardly along the weakened lines of separation formed.

In accordance with the patent statutes, I have described the principles of construction and operation of my handled carton, and while I have endeavored to set forth the best embodiment thereof, I desire to have it understood that

obvious changes may be made within the scope of the following claim without departing from the spirit of my invention.

I claim:

A handled carton including a series of five elongated panels having longitudinal edges foldably connected together along generally parallel fold lines to form a rectangular carton having top, bottom, and side walls, the end panels of the series forming the top wall and overlapping medially thereof to form a two ply strip extending along the medial portion of the carton, the strip being narrow relative to the top wall, end flaps on all of said panels, the end flaps of said end panels being overlapped to form an integrally connected continuation of the strip of double thickness, adhesive securing said overlapping portions of said end panels and end flaps together, said panels forming an elongated tubular body, the end flaps on said end panels and on the opposite panel of the tubular body being folded into a substantially common plane, the end flaps of the remaining opposed panels overlying said folded end flaps, means securing said flaps together in superposed relation, and weakened lines of separation extending along the edges of said strip of double thickness, said weakened lines being substantially parallel and extending into the adjoining portions of the end flaps connected to said end panels at each end of the top panel, said weakened lines terminating short of the free ends of said last mentioned end flaps.

References Cited in the file of this patent

UNITED STATES PATENTS

1,974,792	Berney	Sept. 25, 1934
2,359,298	Brogden	Oct. 3, 1944
2,613,867	Darr	Oct. 14, 1952
2,681,143	Guyer	June 15, 1954