

- (21) Application No **8204109**
(22) Date of filing **12 Feb 1982**
(43) Application published
7 Sep 1983
(51) **INT CL³**
B65D 5/46
(52) Domestic classification
B8P H2
U1S 1110 B8P
(56) Documents cited
WO A 8100090
US 4195765
(58) Field of search
B8P
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(54) **Carton having a handle**

(57) A carton (e.g. for a flexible fluid filled bag) has a carrying handle (10) which is initially held against a side (2) of the carton by an extension flap folded in below an end flap (14(d)) of the carton. When the handle is required it can be pulled away from the side (2) tearing off the extension flap at a tear line connecting it to the handle (10).

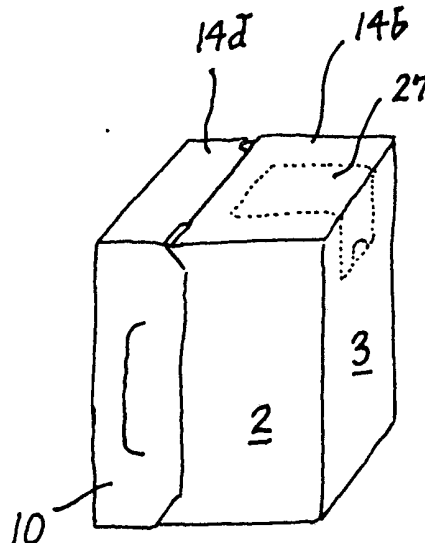
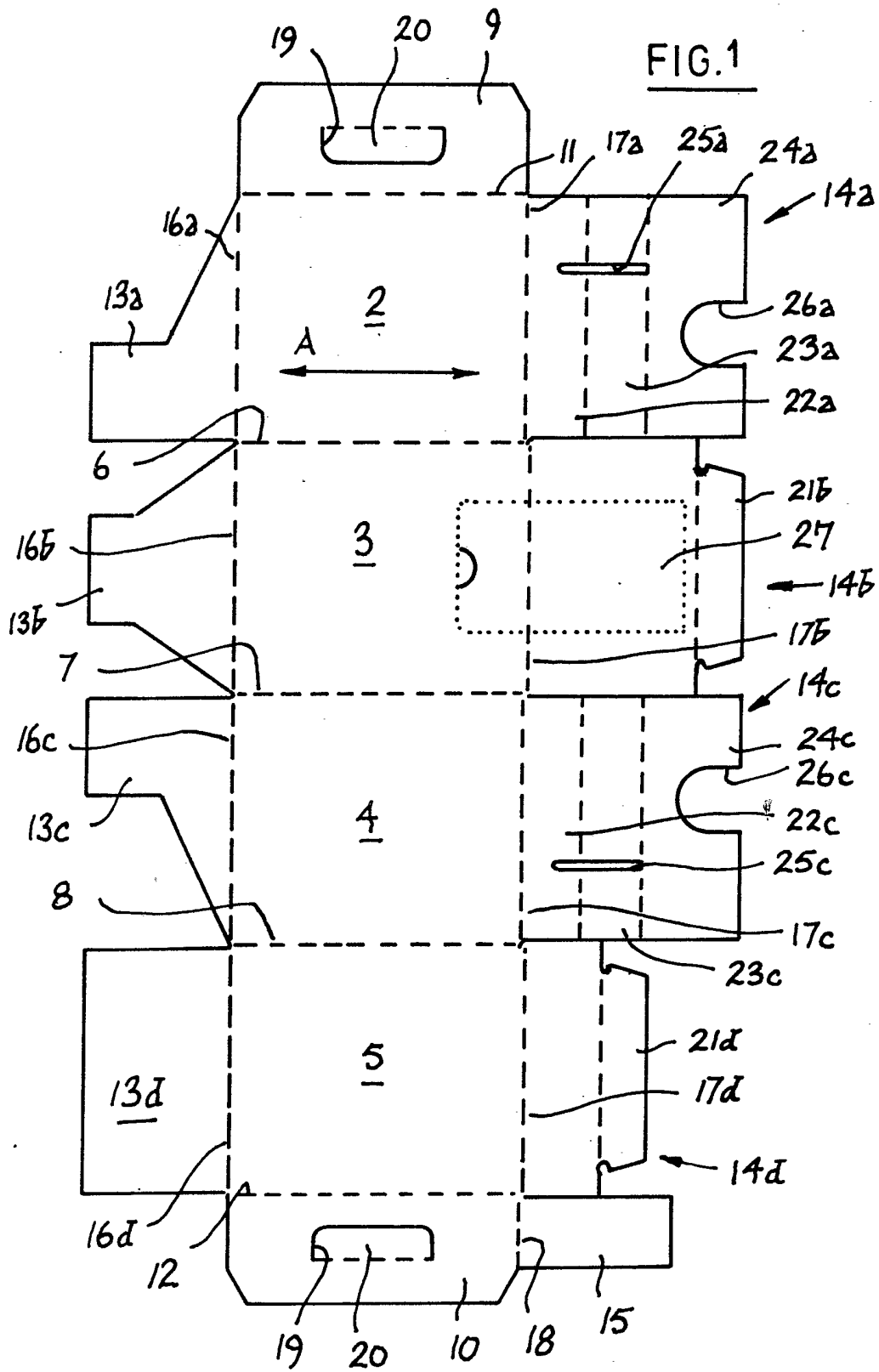


FIG. 2

~ 1 ~



~2~

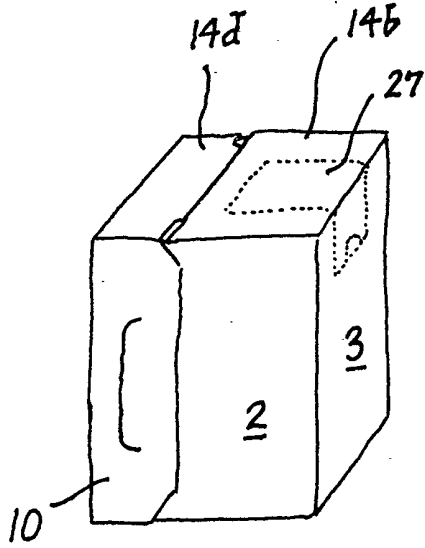


FIG. 2

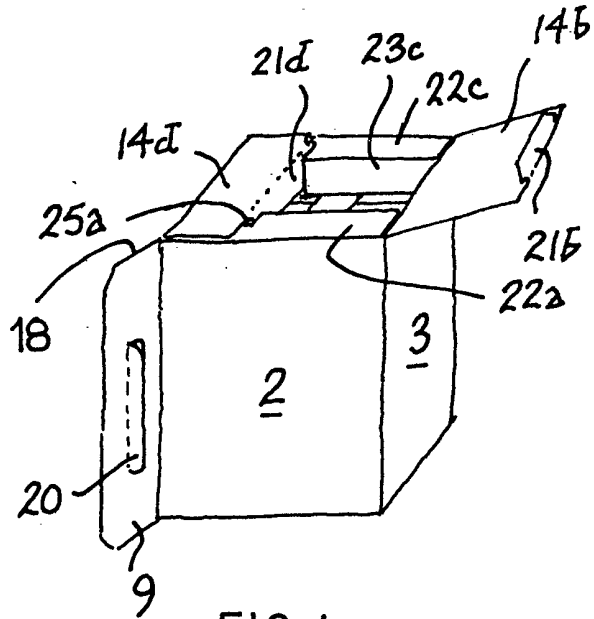


FIG. 4

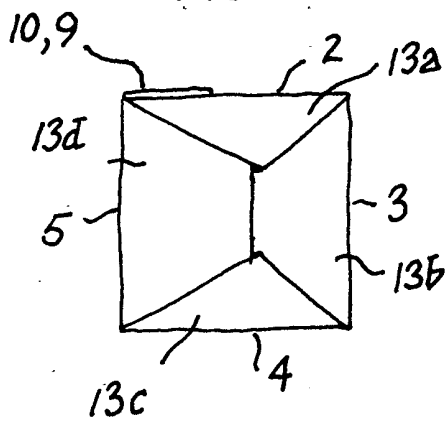


FIG. 3

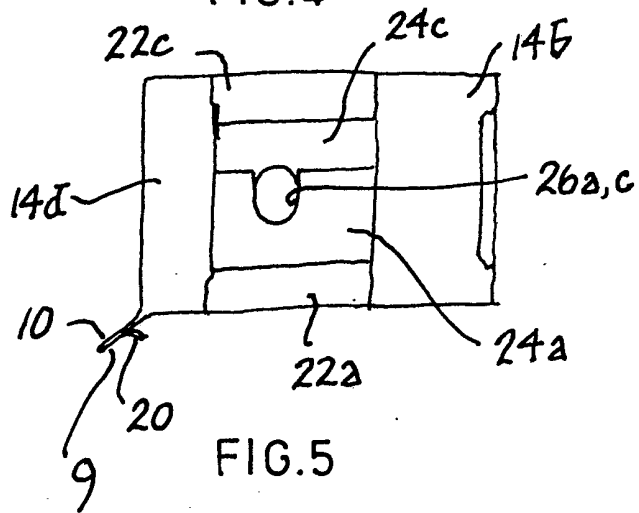


FIG. 5

SPECIFICATION

Improved packaging carton and blank therefor

5 This invention relates to an improved packaging carton which can be erected from a blank of stiff yet foldable material and includes an integral carrying handle. Cartons in accordance with the invention are suitable for a variety of different uses but have particular application for the packaging of fluent materials (such as wine) retained in a bag within the carton. The invention also extends to a blank from which a carton can be erected.

10 It is known from U.K Patent Specification 248931 to provide a carton blank having handle-forming flaps at each end of the blank, these flaps being disposed adjacent to one another when the carton is erected from the blank to provide a handle projecting outwardly from the centre of one wall of the erected carton.

15 It is also known from U.K. Patent Specification 242758 to provide an integral double-thickness handle projecting from one edge of a carton of rectangular cross-section.

20 However, in these known arrangements, the handle interferes with the close side-by-side stacking of a plurality of erected cartons and close stacking is important to minimise the space occupied by the cartons when transporting them to a point of sale or when displaying them for sale (e.g. on the crowded shelves of a supermarket).

25 A carton in accordance with the present invention has a significant advantage over prior art cartons provided with integral carrying handles, in that the handle is retained in a non-projecting position until required for use, but can readily be brought into a usable projecting position when required.

30 According to one aspect of the invention a packaging carton comprises a body portion of polygonal (e.g. square) cross-section comprising pairs of contiguous side walls with integral end flaps on at least some of the side walls at least partly closing opposite ends of the body portion, an integral carrying handle projectable outwardly of the body portion and a removable extension of the carrying handle which is engaged with at least one end flap to hold the handle against an adjacent side wall.

35 Preferably the carrying handle is located between one pair of contiguous side walls and is formed from a pair of handle flaps secured together, one handle flap being integral with each of the two side walls of the said pair. Conveniently each handle flap extends the full length (i.e. between opposite end flaps) of each side wall, the removable extension being formed at one end only of only one of the two handle flaps. The extension may be delimited from the handle flap by a line of weakness (e.g. a line of spaced-apart perforations).

40 Where the carton is to serve as the container of a flexible bag filled with fluent material, one set of end flaps may co-act to (a) define a support for a pouring opening of the bag and (b) to cover that pouring opening until it is required for use. A removable panel can be provided at least partly in one side wall of the carton to provide a means of easy access to

the pouring opening when required.

The carton is desirably made from faced corrugated card material.

45 According to a further aspect of the invention a one piece blank for a packaging carton comprises a plurality of side wall panels delimited side-by-side by longitudinal creases, at least one of the two outermost side wall panels being connected to a handle flap, the other outermost side wall panel being connected to a closing flap for connection to the said one outermost side wall panel or to the handle flap to form the side wall panels into a body portion of the carton, end wall panels, at the ends of at least some of the side wall panels, delimited from the respective side wall panels by transverse creases, the end wall panels serving, in the erected form of the blank, to at least partly close the opposite ends of the body portion, and an extension flap integral with the handle flap and adapted to be folded in with the adjacent end wall panels when the blank is erected to form the carton, whereby the handle flap is held to lie adjacent to an outermost side wall panel.

50 Suitably there are four rectangular side wall panels and at least two end flaps at each end of the joined array of four side wall panels. Conveniently the closing flap is also a handle flap so that a double thickness handle is formed when the closing and handle flaps are secured together to form the body portion.

55 Where the blank is to be used for forming the "box" of a "bag-in-box" type of package, one of the side wall panels may be provided with a weakened area to permit a user to gain access to a valve of the bag stored within the box.

60 Where the closing flap is also a handle flap, one handle flap may be provided with a tab which can be passed through an aperture in the other handle flap to permit the tab to rest on the hand of a person carrying the carton, thus improving the comfort of the handle in use.

65 One embodiment in accordance with the invention will now be further described, by way of example, with reference to the accompanying drawings, in which:-

70 *Figure 1* is a plan of a blank in accordance with the invention,

75 *Figure 2* is a perspective view of the blank of *Figure 1* after it has been erected into a carton,

80 *Figure 3* is a bottom end view of the carton in *Figure 2*,

85 *Figure 4* is a perspective view of the carton of *Figure 2* showing the handle projecting for use and the upper end partially open, and

90 *Figure 5* is an upper end view of the carton shown in *Figure 4*.

95 The blank 1 shown in *Figure 1* is cut and pre-creased from a sheet of double-faced corrugated paperboard with the flutes running in the direction of the arrow A. The blank 1 comprises four side wall panels 2, 3, 4 and 5 (delimited by longitudinal creases 6, 7 and 8), two handle flaps 9 and 10, delimited from the respective adjacent side wall panels 2 and 5 by longitudinal creases 11 and 12, four lower end flaps 13a to 13d, four upper end flaps

14a to 14d and an extension flap 15 on the handle flap 10. The lower and upper end flaps are delimited from the respective side wall panels by transverse 16a to 16d and 17a to 17d, and the extension flap 15 is delimited from the handle flap 10 by a tear line 18. U-shaped cuts 19 are formed in the two handle flaps 9 and 10 to define tongues 20.

The upper end flaps 14b and 14d are outer flaps, each having a distal tongue (21b and 21d, respectively). The end flaps 14a and 14c are each in three sections marked 22a,c: 23a,c and 24a,c, respectively. A narrow slot 25a, 25c is formed across sections 23a, 23c and partly across sections 22a, 22c, and a U-shaped recess 26a, 26c is formed in the outer edge of the sections 24a, 24c.

The lower end flaps 13a to 13d are shaped to interlock to close the lower end of the erected carton, but these are shaped to a known pattern and interengage in the manner clearly shown in Figure 3, and need not therefore be further described.

A perforated panel 27 is formed partly in the side wall panel 3 and partly in the end flap 14b.

To form the carton shown in Figure 2, the handle flaps 9 and 10 are glued one over the other after folding the blank 1 about crease 7 to form the carton in a knocked-down condition, the side wall panels 2-5 are then disposed at right angles to one another and the lower end flaps 13a to 13d are folded in, to close the lower end of the carton. The flexible bag (not shown) which is to contain the fluent material to be packaged is then inserted into the open top and its pouring outlet is located in the substantially circular opening formed by the recesses 26a, 26c in the overlapping sections 24a, 24c of the inner end flaps 14a and 14c. In effecting this arrangement of the sections 24a, 24c, the sections 23a, 23c are at right angles to the sections 24a, 24c and the sections 22a, 22c are parallel to the sections 24a, 24c.

The slots 25a, 25c are now positioned to receive the turned-down tongues 21b, 21d of the outer flaps 14b, 14d when the carton is closed after the bag has been filled.

Figure 2 shows the finally closed carton and it will be noted that the two handle flaps 9, 10 are held parallel to the side wall panel 2 by locating the extension flap 15 over the section 22c of the inner flap 14c and locking it in place with the outer flap 14d.

The carton, in the form shown in Figure 2 is of generally square section and can thus be stacked closely with other similar cartons for palletizing, locating in a container for transport and/or storage or for display at a sales outlet.

When a purchaser wishes to use the handle, the joined flaps 9, 10 can be pulled away from the side wall panel 2, breaking off the extension flap 15 at the tear line 18. This allows the handle to adopt the position shown in Figures 4 and 5 whereby the carton can be carried, depending from the hand, with the fingers of the hand passed through the apertures formed in the handle flaps by a bending up of the tongues 20.

When the contents of the carton are to be dispensed, the panel 27 can be torn away to expose the pouring outlet of the bag.

By making the upper end flaps of a conventional type, the carton can be used for containing materials other than those filling a flexible bag.

It will be appreciated that the invention extends to cartons and blanks of other than square section (e.g. rectangular or hexagonal).

CLAIMS (Filed on 9.2.83)

1. A packaging carton comprising a body portion of polygonal cross-section comprising pairs of contiguous side walls with integral end flaps on at least some of the side walls at least partly closing opposite ends of the body portion, an integral carrying handle projectable outwardly of the body portion and a removable extension of the carrying handle which is engaged with at least one end flap to hold the handle against an adjacent side wall.

2. A packaging carton as claimed in claim 1, in which the carrying handle is located between one pair of contiguous side walls and is formed from a pair of handle flaps secured together, one handle flap being integral with each of the two side walls of the said pair.

3. A packaging carton as claimed in claim 2, in which each handle flap extends the full length between opposite end flaps of each side wall, the removable extension being formed at one end only of only one of the two handle flaps.

4. A packaging carton as claimed in any preceding claim in which the extension is delimited from the handle flap by a line of weakness.

5. A packaging carton as claimed in any preceding claim adapted to contain a flexible bag filled with fluent material, one set of end flaps co-acting to (a) define a support for a pouring opening of the bag, and (b) to cover that pouring opening until it is required for use.

6. A packaging carton as claimed in claim 5, in which a removable panel is provided at least partly in one side wall of the carton to provide a means of easy access to the pouring opening when required.

7. A packaging carton as claimed in any preceding claim in which the carton is made from faced corrugated card material.

8. A packaging carton substantially as hereinbefore described with reference to, and as illustrated in, Figures 2 to 5 of the accompanying drawings.

9. A one piece blank for a packaging carton comprising a plurality of side wall panels delimited side-by-side by longitudinal creases, at least one of the two outermost side wall panels being connected to a handle flap, the other outermost side wall panel being connected to a closing flap for connection to the said one outermost side wall panel or to the handle flap to form the side wall panels into a body portion of the carton, end wall panels, at the ends of at least some of the side wall panels, delimited from the respective side wall panels by transverse creases, the end wall panels serving, in the erected form of the blank, to at least partly close the opposite ends of the body portion, and an extension flap integral with the handle flap and adapted to be folded in with the adjacent end wall panels when the

blank is erected to form the carton, whereby the handle flap is held to lie adjacent to an outermost side wall panel.

10. A blank as claimed in claim 9, in which there are four rectangular side wall panels and at least two end flaps at each end of the joined array of four side wall panels.

11. A blank as claimed in claim 9 or claim 10, in which the closing flap is also a handle flap so that a double thickness handle is formed when the closing and handle flaps are secured together to form the body portion.

12. A blank as claimed in claim 11, in which one of said handle flaps is provided with a tab which can be passed through an aperture in the other of said handle flaps to permit the tab to rest on the hand of a person carrying the carton, thus improving the comfort of the handle in use.

13. A blank as claimed in any of claims 9 to 12, in which one of the side wall panels is provided with a weakened area to permit a user to gain access to a valve of a bag stored within the carton.

14. A one piece blank for a packaging carton substantially as hereinbefore described with reference to, and as illustrated in, Figure 1 of the accompanying drawings.

New claims or amendments to claims filed on 25.3.83

Superseded claims:- Claim 1

New or amended claims:-

1. A packaging carton comprising a body portion of polygonal cross-section comprising pairs of contiguous side walls with integral end flaps on at least some of the side walls at least partly closing opposite ends of the body portion, an integral carrying handle projectable outwardly from the side walls and a removable extension of the carrying handle which is engaged with at least one end flap to hold the handle against an adjacent side wall.