June 5, 1951 G. C. CURRIE ET AL 2,556,069

BOTTLE CARTON

Filed Nov. 28, 1947 3 Sheets-Sheet 1

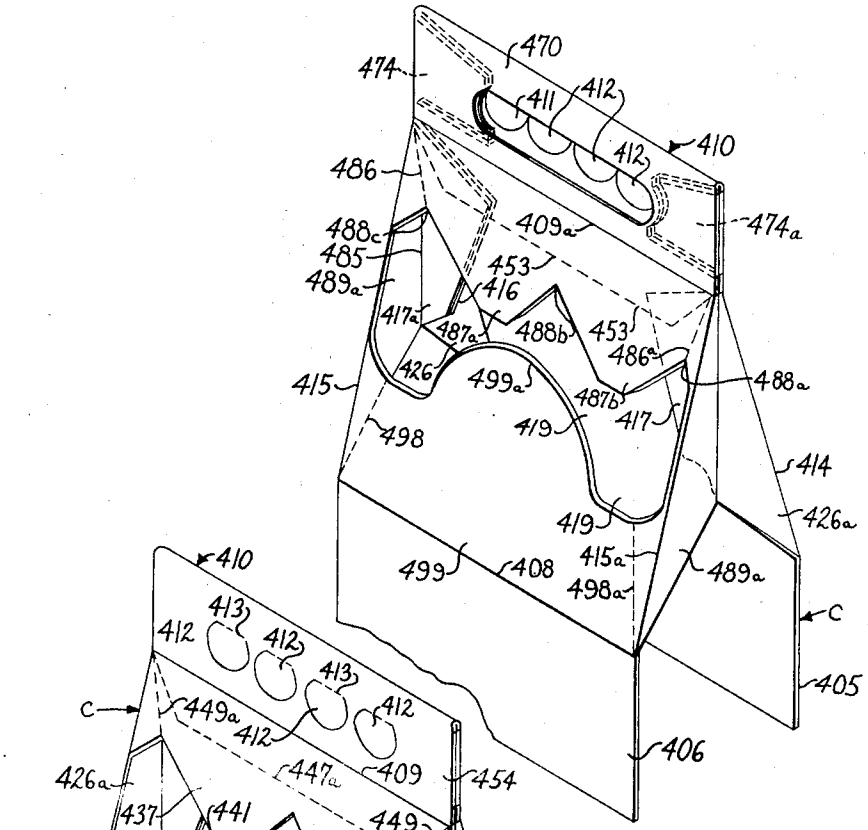

Fig-1

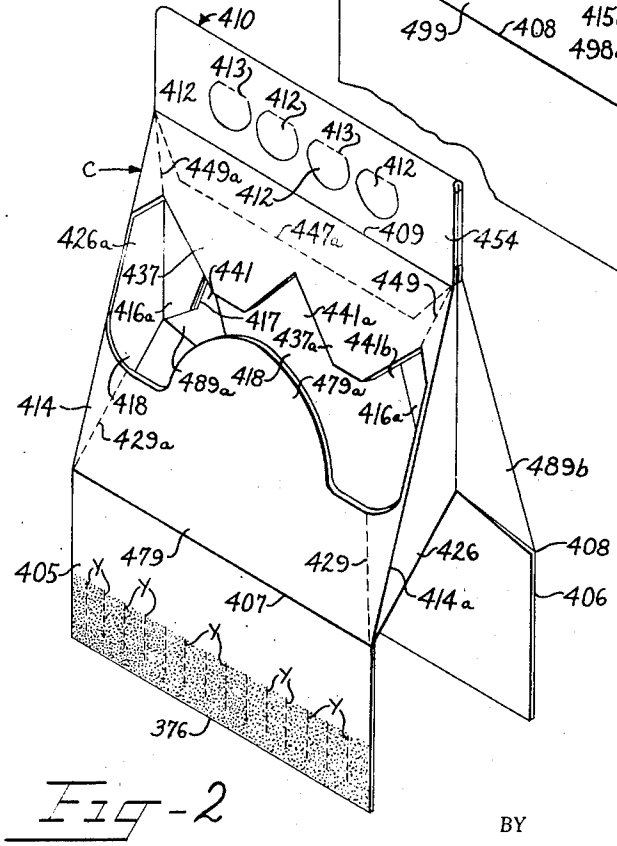

Fig-2

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BOTTLE CARTON

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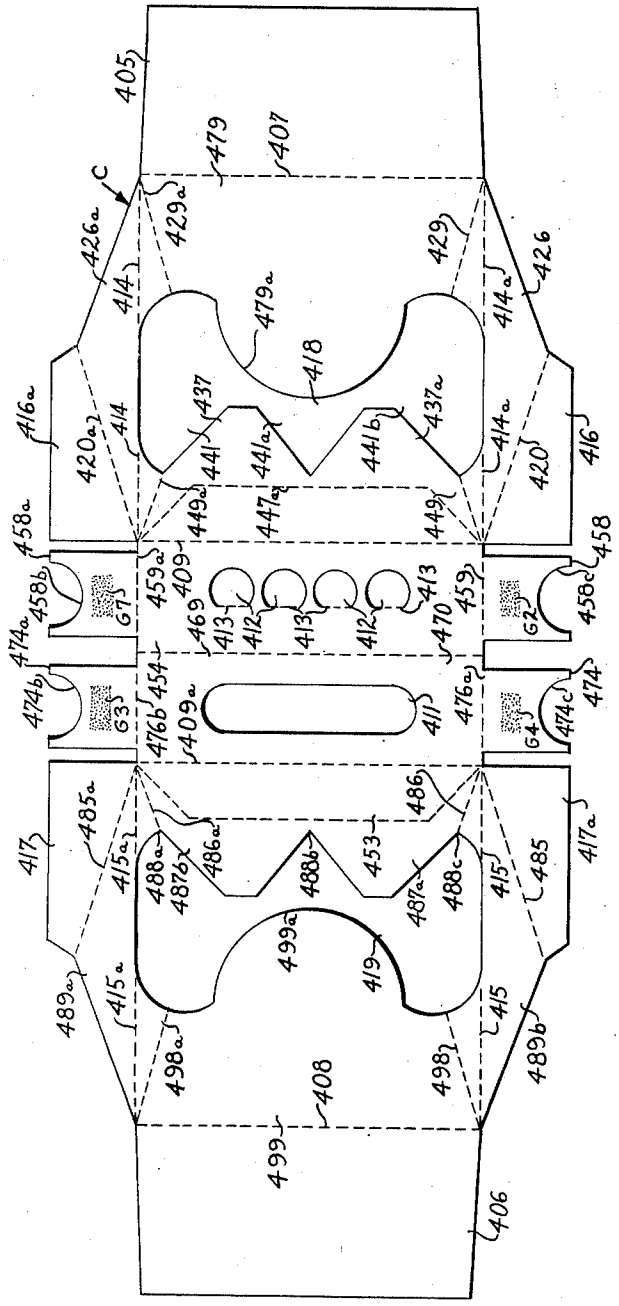

FIG - 3

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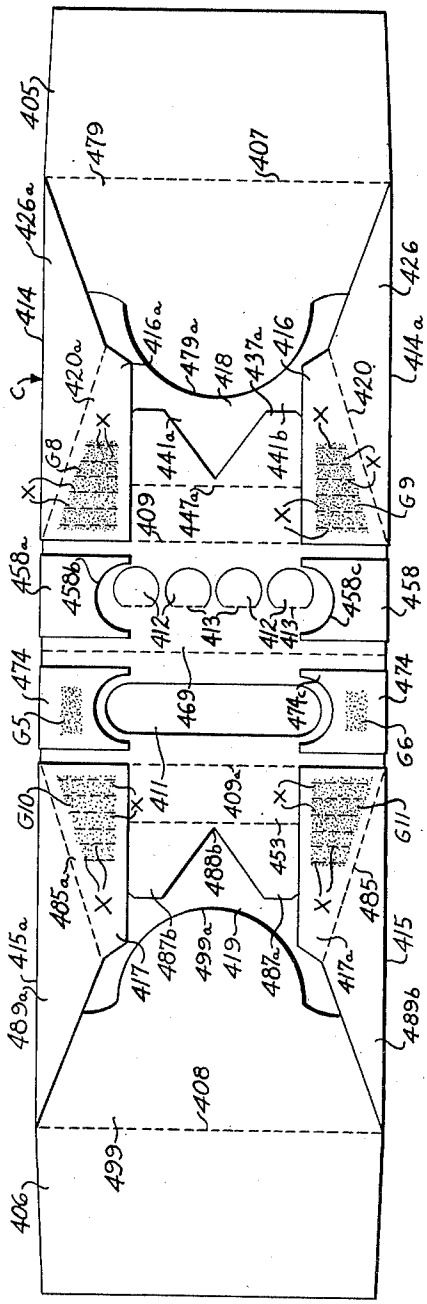

FIG - 4

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Patented June 5, 1951

2,556,069

UNITED STATES PATENT OFFICE

2,556,069

BOTTLE CARTON

Grover C. Currie, Charlotte, and Walter A. Becker, High Point, N. C., assignors to Dacam Corporation, Charlotte, N. C., a corporation of North Carolina

Application November 28, 1947, Serial No. 788,603

1 Claim. (Cl. 224—45)

1

This invention relates to an improved carton for carrying bottle drinks and more especially to a carton adapted to be used in a machine adapted to place the bottles in a carton such as shown in an application filed of even date herewith and entitled Method and Means for Placing Articles in Cartons, filed by Grover C. Currie, Bernard D. Dans, and Sterling R. Arner.

It is an object of this invention to provide a carton formed from a continuous blank of material having end wall tabs folded from each edge thereof and having a centrally disposed portion doubled upon itself to provide a handle portion and having openings in each side thereof through which the necks of bottles or other articles may be projected to stand out through the openings and having bottom flaps which are adapted to be folded one on top of the other and secured together to complete the carton.

It is another object of this invention to provide a carton for bottled drinks and the like having crease lines along which the end walls may be folded and secured to each other and having crease lines along which the bottom flaps may be folded to horizontal overlapping position and the end walls being adapted to be collapsed between the two side walls so that the carton, until it is assembled ready for use, can be collapsed to a flat condition without providing additional crease lines for folding purposes only.

Some of the objects of the invention having been stated, other objects will appear as the description proceeds when taken in connection with the accompanying drawings, in which

Figure 1 is an isometric view of the assembled carton;

Figure 2 is a reverse isometric view of the assembled carton and showing the portions not shown in Figure 1;

Figure 3 is a plan view of the inside surface of the blank before it is folded;

Figure 4 is a view similar to Figure 3 but showing some of the tabs folded into position ready for the blank to be folded one half upon the other along a median line.

By referring to Figures 1, 3, 4 and 2 there may be observed the details of a specially constructed carton for use in a packaging machine. This carton is made from a single piece of material such as cardboard creased along a crease line 469 to divide it into two identical sections. On the right-hand side of crease line 469 in Figure 3 therein is a rectangular section 454 bounded by crease lines 459 and 459a, 409 and 469. This section has cut outs 412 therein with crease lines

2

413 along which they may be bent by insertion of one's fingers for carrying the filled carton. Extending from crease lines 459 and 459a are tabs 458 and 458a respectively, which have semi-circular cut outs 458c and 458b respectively which have glue spots G2 and G1 respectively thereon and which tabs are folded over to the position shown in Figure 4.

This end of the blank has an opening 418 which is irregular in shape and is provided with tabs 437 and 437a which define gaps 441, 441a and 441b into which one side of the bottles in one side of the carton fit in the assembled carton.

This side also has an irregular crease line 447a along which the tabs 437 and 437a may be bent outwardly and it also has crease lines 449 and 449a to allow outward bulging of the tabs 437 and 437a.

This section of the blank also has crease lines 414 and 414a along which end tabs 426 and 426a may be bent over to the position shown in Figure 4. Tabs 416 and 416a project from the portions 426 and 426a respectively and may be bent along the crease lines 420 and 420a respectively in distending the carton ready for filling.

The tabs 416, 426, 416a and 426a when turned over to the position shown in Figure 4 have glue spots G9 and G8 respectively applied thereto and one of the glue spots may be omitted, if desired. The said one side portion of the blank has crease lines 429 and 429a along which a portion 479 may bulge outwardly as the bottles are inserted therein. The sidewall portion 479 has a lip 479a for engaging the outer sides of the bottles. The lower end of the portion 479 has a crease line 407 along which a bottom tab 405 may be bent inwardly to horizontal position.

The other half of the carton has a rectangular section 470 bounded by crease lines 469, 409a, 476a and 476b. This is the section which has a slot 411 therein. The crease lines 476a and 476b define tabs 474 and 474a which have semi-circular cut outs 474c and 474b respectively in their outer ends. These tabs have glue spots G4 and G3 respectively on their upper faces in Figure 3, before they are bent over to the position shown in Figure 4 from the position shown in Figure 3. The other side of the carton has an irregular opening 419 having tabs 487a and 487b projecting into this opening which define notches 488a, 488b and 488c for accommodating one side of the bottles when placed in the carton. These tab portions 487a and 487b are bent outwardly along a crease line 453 when the carton is distended to receive the bottles.

There are also crease lines 486 and 486a to allow outward distension of this portion of the side wall.

In alignment with the outer edges of the opening 419 are crease lines 415 and 415a along which end wall tabs 489a and 489b may be bent and crease lines 485 and 485a define tabs 417a and 417 respectively, which when bent over to the position shown in Figure 4 have glue spots G10 and G11 applied thereto.

At this stage in Figure 4, glue spots G5 and G6 are applied to the top surfaces of the tabs 474a and 474 respectively, so that they may adhere to the tabs 458a and 456 respectively.

The left-hand side wall portion 499 also has crease lines 498 and 498a along which the lower portion of this side wall may bulge outwardly along with its projecting portion 499a. The portion 499 has a crease line 408 along which another bottom tab 406 may be bent to horizontal position.

With the carton blank treated as above and being in the position shown in Figure 4, one of the halves of this blank may be folded on top of the other half of the blank along the crease line 469 and glue spots G10 and G8 will secure the tabs 416a and 417 together and glue spots G11 and G9 will secure the tabs 416 and 417a together and glue spot G5 will secure tabs 458a and 474a together and glue spot G6 will secure the tabs 456 and 474 together forming handle 410. Before any glue spots G8 to G11 are applied a plurality of rows of indentations X are formed in the tabs 416, 416a, 417 and 417a to cause better adherence between the proximate faces of these tabs when the carton is folded to assembled position.

Also it will be noted that the bottom flap 405 has rows of indentations Y formed in its lower surface before a coating of glue 376 is applied thereto.

Thus the carton is assembled in flat form ready to be fed into the machine and then have its side walls separated from each other by the suction means of the machine. If desired, glue spots G8 and G9 may be omitted.

In the drawings and specification there has been set forth a preferred embodiment of the invention, and although specific terms are employed, they are used in a generic and descriptive sense only, and not for purposes of limitation, the scope of the invention being defined in the claim.

We claim:

A bottle carrying carton adapted to carry six bottles comprising a sheet of paper board and the like creased adjacent each end thereof to provide a pair of bottom flaps and creased at its medial portion to form the upper end of a handle portion and also creased in spaced relation to the medial portion to form a rectangular handle portion on each side of said medial crease line,

each of the rectangular handle portions having outwardly directed flaps extending therefrom and having a semicircular cut-away portion in the free ends thereof which are adapted to be folded inwardly against the inner sides of the rectangular portions before the rectangular portions are folded against each other into vertical relationship to form a handle, one of said rectangular portions having an elongated opening therein and the other rectangular portion having a plurality of substantially circular cut-away portions adapted to coincide with the elongated opening when the two rectangular portions are folded against each other and secured in position and through which the fingers can be inserted for carrying the carton, a side wall portion hingedly connected to each of said rectangular portions at one of its ends and being hingedly secured at its other end to one of said bottom flaps, each of said side wall portions having end flaps hingedly secured thereto along a continuous longitudinal fold line extending from the junction point of the side wall portion with the bottom flap to the junction point of the side wall portion and the rectangular portion, each of said end flaps being provided with a flap foldable inwardly along crease lines beginning at the junction points of the side portions with the outer edges of the rectangular areas and in divergent relation to the lateral margins of the side portions and adapted to be adhesively secured together to hold the end panels in alinement to bridge the distance between the ends of the side portions and occupying positions above but in spaced relation to the bottom flaps, each of the side portions having an opening extending transversely thereof from one end flap to the other, each of said side wall portions having a pair of crease lines converging inwardly from the junction points of the bottom flap and the lateral side edges of the said side wall portions, the other ends of said last-named crease lines terminating at the lower edge of said opening to thereby allow outward bulging of said side wall portions, said bottom flaps being adapted to be brought into overlapping relation and adhesively secured to each other, whereby the lower ends of the bottles may rest thereon.

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WALTER A. BECKER.

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