Dec. 19, 1961 K. J. WOLLAEGER 3,013,712

RECLOSABLE TEAR-STRIP CARTON

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FIG. 1.

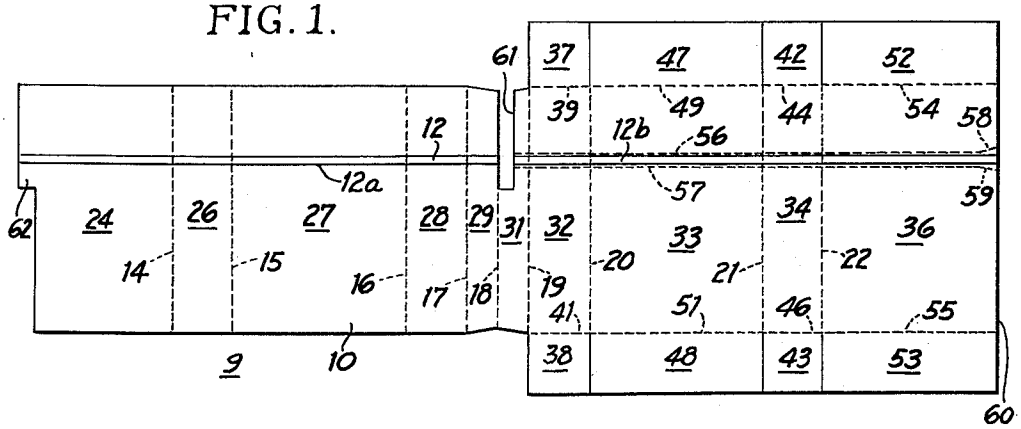
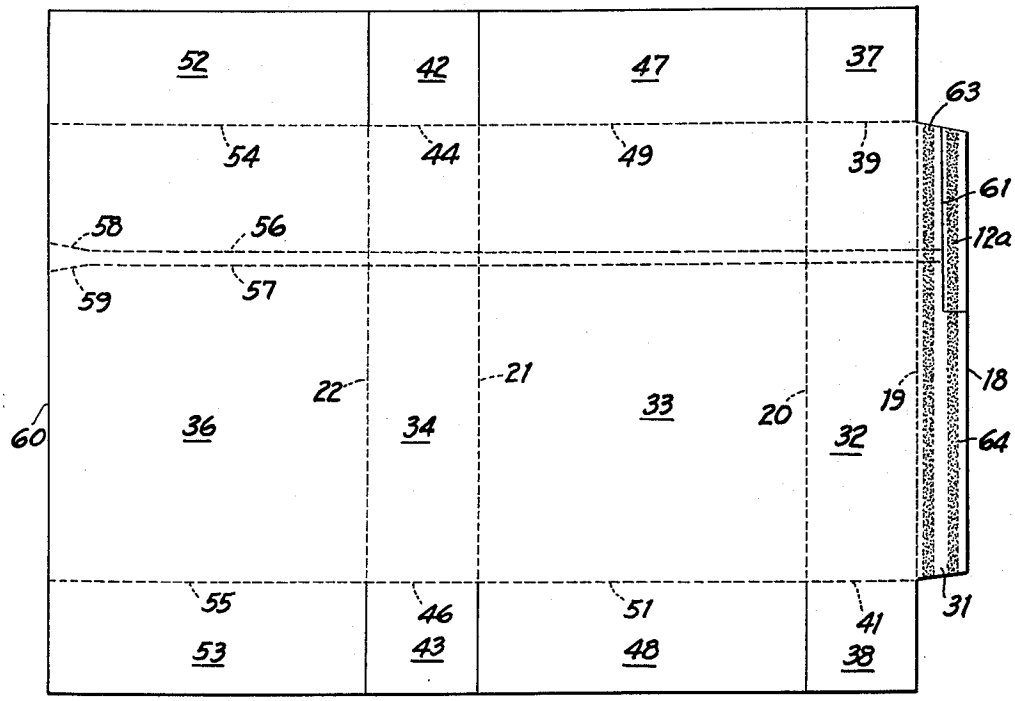


FIG. 2.



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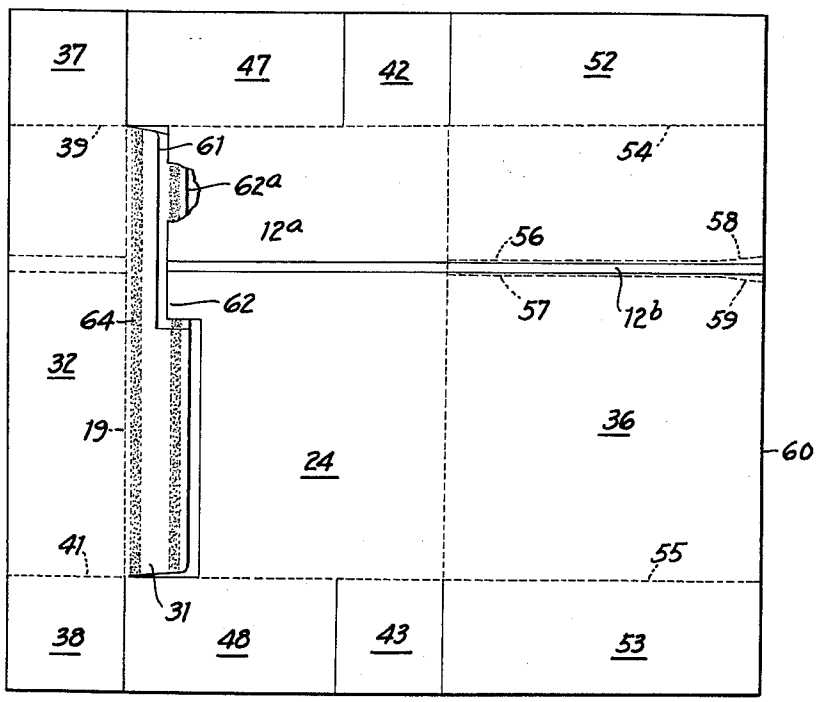
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RECLOSABLE TEAR-STRIP CARTON

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FIG. 3.



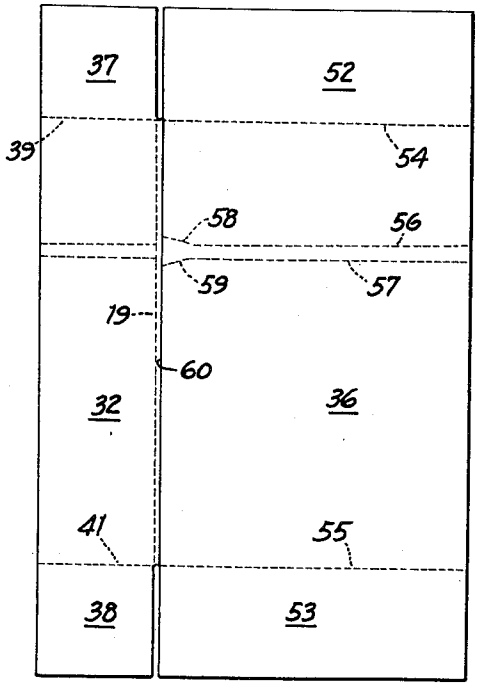


FIG. 4.

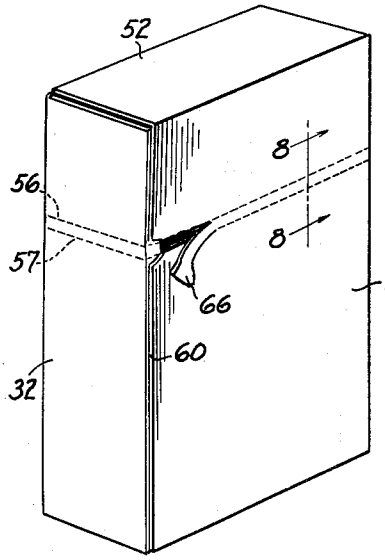
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FIG. 5.



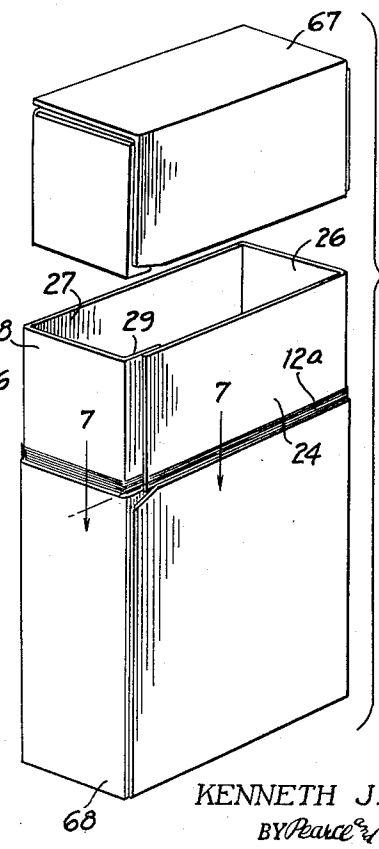


FIG. 6.

FIG. 7.

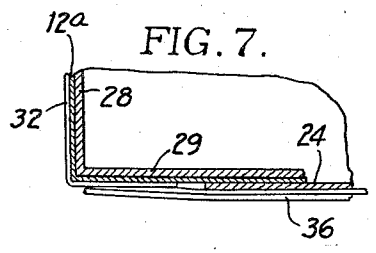
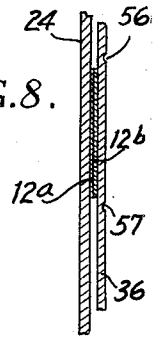


FIG. 8.



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United States Patent Office 3,013,712 Patented Dec. 19, 1961

3,013,712

RECLOSABLE TEAR-STRIP CARTON

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Filed May 3, 1960, Ser. No. 26,476
4 Claims. (Cl. 229—51)

This invention relates to a carton construction. More particularly, this invention relates to a tear-strip carton.

An object of this invention is to provide a tear-strip carton in which, when a tear-strip is removed, a cap is formed which can be replaced and reused.

A further object of this invention is to provide a tear-strip carton having a double wall and in which the outer wall is divided by the tear-strip into a cap portion and a lower or main portion, and in which the inner wall serves to strengthen the carton and in which the upper part of the inner wall forms a guide or support for receiving the cap portion.

A further object of this invention is to provide a tear-strip carton of this type which can be folded flat for ready shipment and which can be erected and filled by means of conventional filling machines.

The above and other objects and features of the invention will be apparent to those skilled in the art to which this invention pertains from the following detailed description, and the drawings, in which:

FIG. 1 is a plan view of a blank from which a carton constructed in accordance with an embodiment of this invention is formed, score lines being indicated in dash lines.

FIG. 2 is an enlarged plan view of the blank folded to a first folded position;

FIG. 3 is a plan view showing the blank further folded, a portion of one panel being broken away to reveal internal construction;

FIG. 4 is a plan view of the carton in shipping position;

FIG. 5 is a perspective view showing the completed, filled carton, a tear-strip thereof being shown partly released;

FIG. 6 is an exploded view showing the carton after removal of the tear-strip;

FIG. 7 is a view in section taken on the line 7—7 in FIG. 6; and,

FIG. 8 is a view in section taken on the line 8—8 in FIG. 5.

In the following detailed description, and the drawings, like reference characters indicate like parts.

In FIG. 1 is shown a blank 9 from which a carton constructed in accordance with an embodiment of this invention is formed. The carton includes a main portion 10 of paperboard or the like to which a strip 12 of strong tape is adhesively attached. The strip of tape can be of any suitable tear-strip material and it can include lengthwise threads or filaments or the like to impart strength. The blank is cut to the shape shown in FIG. 1 and is provided with score lines as indicated in dash lines. Transverse score lines 14, 15, 16, 17, 18, 19, 20, 21, and 22, divide the blank into an inner front panel 24, an inner side panel 26, an inner back panel 27, an inner side panel 28, an inner glue panel 29, an outer glue panel 31, an outer side panel 32, an outer rear panel 33, an outer side panel 34, and an outer front panel 36. Upper and lower tabs 37 and 38 are hinged to ends of the outer side panel 32 at score lines 39 and 41 respectively. Upper and lower tabs 42 and 43 are hinged to ends of outer side panel 34 at score lines 44 and 46 respectively. Upper and lower closure flaps 47 and 48 are hinged to opposite ends of the outer rear panel 33 at score lines 49 and 51 respectively. Upper and lower closure flaps 52 and 53 are hinged to opposite ends of the outer front panel 36 along score lines 54 and 55 respectively. Score lines 56 and 57 are provided along opposite sides of the tear-strip 12 and extend crosswise of panels 31, 32, 33, 34, and 36. End portions 58 and 59 of the score lines 56 and 57, respectively diverge to form a tab at one end thereof where the diverging end portions of score lines intersect an edge 60 of the outer front panel 36. A slot 61 is formed in the linking and glue panel 31 which intersects the tear-strip 12 dividing the tear-strip 12 into sections 12*a* and 12*b*.

In assembly of the carton the blank can first be folded along the score line 18 (FIG. 1), to fold the carton to the condition shown in FIG. 2 in which each inner panel is in registry with one of the outer panels. Glue strips 63 and 64 are rolled onto the glue panels 31 and 29 as indicated by stippling in FIG. 2, the glue strip 64 extending onto both the panel 31 and the panel 29. The inner front panel 24 is then folded, as shown in FIG. 3, to bring an edge portion 62 thereof into registry with the slot 61 in the glue panel 31 and with a section of the inner glue panel 29 where the edge portion 62 of the inner front wall panel is attached to the glue panel 29 by means of adhesive on inner glue panel 29. The outer front panel is folded inwardly against the adhesive area on the outer glue panel 31 and attached thereto, to form the carton into the condition shown in FIG. 4. In this condition the carton is flat and can readily be shipped. The carton can be set up or raised and filled in a conventional manner, whereupon the end tabs and closure flaps may be folded inwardly and sealed to form a completed, filled carton. In FIG. 5 the carton is shown in set up, filled position with the tear-strip thereof started or partially released. The tear-strip is started by raising an end portion 66 thereof where the tear-strip intersects the edge 60 of the front panel. The tear-strip can then be raised and removed to separate a cap portion 67 (see FIG. 6) of the carton from a main portion 68, as shown in FIG. 6. As shown in FIG. 6, upper portions of the inner panels 24, 26, 27, 28 and 29, form guides upon which the cap portion can be mounted for closing the carton for reuse. The portion 12*a* of the strip links these upper portions of the inner panels.

The carton construction illustrated in the drawing and described above is subject to structural modification without departing from the spirit and scope of the appended claims.

Having described my invention, what I claim as new, and desire to secure by Letters Patent is:

1. A carton which comprises an inner front panel, a first inner side panel, an inner back panel, a second inner side panel, an inner glue panel, an outer glue panel, a first outer side panel, an outer back panel, a second outer side panel, and an outer front panel hinged together tandemwise, an elongated tape attached to and extending crosswise of said panels, there being a slot in the outer glue panel adjacent one end thereof, the inner panels being in registry with the outer panels, adhesive means on a part of the inner glue panel in registry with said slot attaching the inner front panel to said portion of the inner glue panel, adhesive means on the outer glue panel attaching a portion of the outer front panel to the outer glue panel, and means attached to the outer panels for closing ends of the carton, the tape on the outer panels forming a tear-strip adapted to remove a strip of the outer panels to divided the carton into a cap portion and a main portion, portions of the inner panels forming guides for the cap portion.

2. A carton which comprises an inner front panel, a first inner side panel, an inner back panel, a second inner side panel, an inner glue panel, an outer glue panel, a first outer side panel, an outer back panel, a second outer side panel, and an outer front panel hinged together tandemwise, an elongated tape attached to and extending crosswise of said

panels, there being a slot in the outer glue panel adjacent one end thereof intersecting the tape, the inner panels being in registry with the outer panels, adhesive means on a part of the inner glue panel in registry with said slot attaching the inner front panel to said portion of the inner glue panel, adhesive means on the outer glue panel attaching a portion of the outer front panel to the outer glue panel, and means attached to the outer panels for closing ends of the carton, the tape on the outer panels forming a tear-strip adapted to remove a strip of the outer panels to divide the carton into a cap portion and a main portion, portions of the inner panels forming guides for the cap portion, the tape on the inner panels linking said portions of the inner panels.

3. A carton which comprises an inner front panel, a first inner side panel, an inner back panel, a second inner side panel, an inner glue panel, an outer glue panel, a first outer side panel, an outer back panel, a second outer side panel, and an outer front panel hinged together tandemwise, an elongated tape attached to and extending crosswise of said panels, there being a slot in the outer glue panel adjacent one end thereof, there being score lines in the outer panels adjacent opposite edges of the tape, the inner panels being in registry with the outer panels, adhesive means on a part of the inner glue panel in registry with said slot attaching the inner front panel to said portion of the inner glue panel, adhesive means on the outer glue panel attaching a portion of the outer front panel to the outer glue panel, and means attached to the outer panels for closing ends of the carton, the tape on the outer panels forming a tear-strip adapted to remove a strip of the outer panels to divide the carton into a cap portion and a main portion, portions of the inner panels forming guides for the cap portion.

4. A carton which comprises an inner front panel, a first inner side panel, an inner back panel, a second inner side panel, an inner glue panel, an outer glue panel, a first outer side panel, an outer back panel, a second outer side panel, and an outer front panel hinged together tandemwise, an elongated tape attached to and extending crosswise of the outer panels, there being a slot in the outer glue panel adjacent one end thereof, the inner panels being in registry with the outer panels, adhesive means on a part of the inner glue panel in registry with said slot attaching the inner front panel to said portion of the inner glue panel, adhesive means on the outer glue panel attaching a portion of the outer front panel to the outer glue panel, and means attached to the outer panels for closing ends of the carton, the tape on the outer panels forming a tear-strip adapted to remove a strip of the outer panels to divide the carton into a cap portion and a main portion, portions of the inner panels forming guides for the cap portion.

References Cited in the file of this patent

UNITED STATES PATENTS

1,998,717	Guyer	Apr. 23, 1935
2,170,230	Armstrong	Aug. 22, 1939
2,758,780	Imbs	Aug. 14, 1956