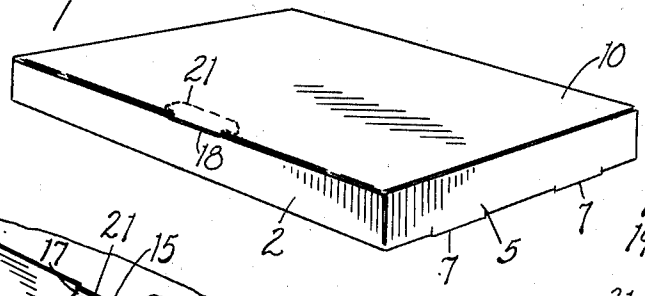
April 13, 1954 K. T. BUTTERY 2,675,160

KNOCKDOWN COVERED CARTON

Filed Jan. 9, 1951

Fig. 1.



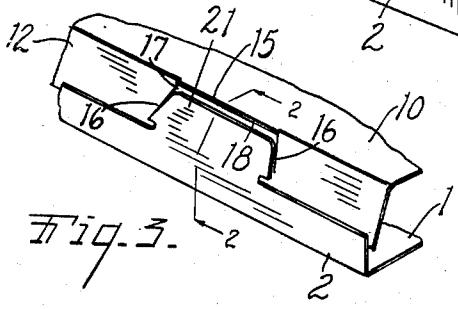


Fig. 3.

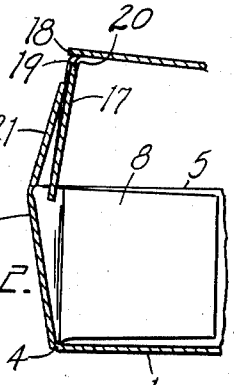


Fig. 2.

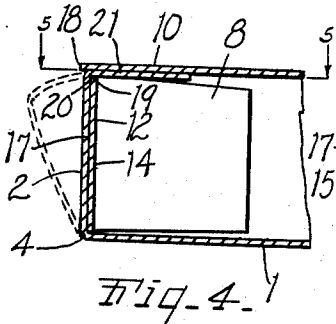


Fig. 4.

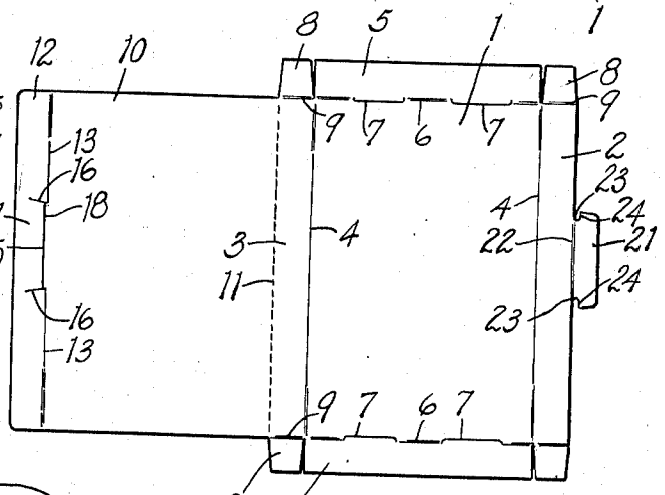


Fig. 6.

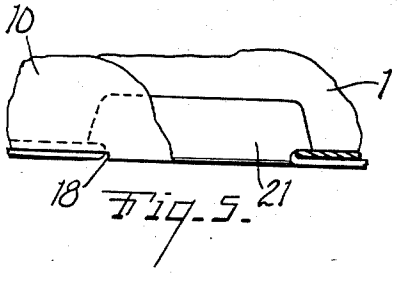


Fig. 5.

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KNOCKDOWN COVERED CARTON

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Application January 9, 1951, Serial No. 205,184

3 Claims. (Cl. 229—33)

1

This invention relates to improvements in a knock-down covered carton.

The main objects of this invention are:

First, to provide a knock down covered carton which may be quickly and easily erected and is provided with inter-engaging and interlocking parts that effectively retain or support it in erected position.

Second, to provide a carton having these advantages in which the interlocking parts may be easily engaged.

Further objects relating to details and economies of the invention will appear from the description to follow. The invention is defined and pointed out in the claims.

The drawings illustrate a preferred form of my invention, in which:

Fig. 1 is a perspective view of the carton in erected position, the locking tongue being shown in engaged position by dotted lines.

Fig. 2 is an enlarged fragmentary view in section on a line corresponding to line 2—2 of Fig. 3 illustrating structural details and certain of the steps in closing and locking the carton.

Fig. 3 is a fragmentary front perspective view with the parts in the position shown in Fig. 2.

Fig. 4 is a fragmentary view sectioned on a line corresponding to that of Fig. 2 with the front wall shown in partially erected position by dotted lines.

Fig. 5 is a fragmentary view in section on a line corresponding to 6—6 of Fig. 4.

Fig. 6 is a plan view of the blank from which the carton is formed.

The embodiment of my invention illustrated is formed of an integral blank and comprises a bottom 1, front wall 2 and rear wall 3 hingedly connected to the bottom at 4. End walls 5 are hingedly connected to the bottom at 6. The hinging connections for the end walls to the bottom are provided with slits 7 facilitating the swinging of the parts to erected position and reducing the tendency of the walls to swing outwardly or collapse. The front and rear walls are provided with corner flaps 8 hingedly connected thereto at 9 and adapted to be disposed on the inner sides of the end walls.

A cover 10 is hingedly connected to the upper edge of the rear wall at 11. The cover is provided with a closure flap 12 hingedly connected to its swinging edge at 13 and of a width corresponding to the width of the front wall and adapted to close on the inner side thereof, as shown at 14. The closure flap has a longitudinal slit 15 of considerable length and transverse slits 16 at the

2

ends of the longitudinal slit and diverging relative to each other and downwardly relative to the position of the closure flap when the carton is in erected position.

This provides a deflectable tongue-like portion 17. It will be noted that the longitudinal slit 15 is outwardly offset relative to the hinging line 13 providing an extension 18 on the cover which overhangs or projects forwardly beyond the closure flap when it is in erected position or disposed at a substantial angle relative to the cover, as, for example, is illustrated in Figs. 2 and 3. This offsetting of the slit 15 also results in there being a slot-like space 19 between the upper edge 20 of the deflectable portion 17 and the cover (see Figs. 2 and 4).

The front wall 2 is provided with a tongue 21 hingedly connected to the upper edge of the cover at 22 and provided with notches 23 at its ends resulting in keepers 24. The tongue is preferably tapered, as illustrated. The distance between the end edges of the keepers exceeds the length of the slit 15 so that when the tongue is fully inserted, the keepers engage the front wall at the ends of the slit 15.

In erecting the cartons the front, rear and end walls are erected with the corner flaps on the inner sides thereof. The cover may then swing forwardly, and the edges of the closure flap positioned on the inner side of the front wall approximately as indicated in Figs. 2 and 3. The tongue 21 is then pressed inwardly against the deflectable portion 17 and the cover pushed downwardly with continued pressure on the tongue. The edge of the tongue engages the overhang 18 and is effectively guided into closed position, as shown in Fig. 4, as the cover is brought to fully closed position. The keepers in this position, as stated, are brought into locking retaining engagement with the cover flap, as is clearly shown in Fig. 5.

It will be noted that there is little waste stock when the blanks are cut from sheets or webs, and they may be slit and scored simultaneously with the blanking die so that the structures may be very economically produced. They may be shipped in knock down and readily set up for use, and when set up are effectively retained in erected position.

I have illustrated and described my invention in a relatively flat carton, but it will be appreciated that it may be adapted to cartons of various shapes and dimensions. I have not attempted to illustrate or describe other adaptations or embodiments of my invention, as it is believed that this disclosure will enable those skilled in the

art to embody or adapt my invention as may be desired.

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

1. A carton formed of an integral blank cut and scored to provide a bottom and front, rear and end walls hingedly connected to the bottom and corner flaps hingedly connected to the front and rear walls to be positioned on the inner sides of the end walls when the carton is erected, a cover hingedly connected to the upper edge of the rear wall and a closure flap hingedly connected to the swinging edge of the cover corresponding in width to the front wall and adapted to be disposed on the inner side thereof, said closure flap having a longitudinal slit therein adjacent to and outwardly offset from the hinge connection for the closure flap to the cover to provide a projecting edge for the cover when the closure flap is folded downwardly, said cover flap having downwardly diverging transverse slits extending from the ends of the longitudinal slit providing an inwardly deflectable portion, the upper edge of which is spaced vertically from said projecting edge of the cover to provide a tongue receiving opening when the closure flap is disposed angularly relative to the cover, and a tapered tongue provided with keepers at its ends, said tongue being hingedly connected to the top edge of the front wall in alignment with the said deflectable portion of said closure flap and being insertable through said tongue receiving opening to be disposed on the inner side of the cover, when the carton is fully erected, with its keepers in engagement with the inner side of the closure flap at the ends of said longitudinal slit therein, said keepers being disposed approximately in the general plane of the tongue when the tongue is inserted through the tongue receiving opening, the said projecting edge of the cover and the said deflectable portion facilitating the interlocking engagement of the tongue with the closure flap.

2. A carton formed of an integral blank cut and scored to provide a bottom and front, rear and end walls hingedly connected to the bottom, a cover hingedly connected to the upper edge of the rear wall and a closure flap hingedly connected to the swinging edge of the cover and adapted to be disposed on the inner side thereof, said closure flap having a longitudinal slit therein adjacent to and outwardly offset from the hinge connection for the closure flap to the cover to provide a projecting edge for the cover when the closure flap is folded downwardly, said cover flap having downwardly diverging transverse slits extending from the ends of the longitudinal slit providing an inwardly deflectable portion, the upper edge of which is spaced vertically from said projecting edge of the cover to provide a tongue receiving opening when the closure flap is disposed angularly relative to the cover, and a tapered tongue provided with keepers at its ends, said tongue being hingedly connected to the top edge of the front wall in alignment with the said deflectable portion of said closure flap and being insertable through said tongue receiving opening to be disposed on the inner side of the cover when the carton is fully erected, with its keepers in engagement with the inner side of the closure flap at the ends of said longitudinal slit therein, said keepers being disposed approximately in the general plane of the tongue when the tongue is inserted through the tongue receiving opening, the said projecting edge of the cover and the said deflectable portion facilitating the interlocking engagement of the tongue with the closure flap.

3. A carton formed of an integral blank cut and scored to provide a bottom and front, rear and end walls hingedly connected to the bottom, a cover hingedly connected to the upper edge of the rear wall and a closure flap hingedly connected to the swinging edge of the cover corresponding in width to the front wall and adapted to be disposed on the inner side thereof, said closure flap having a longitudinal slit therein adjacent to and outwardly offset from the hinge connection for the closure flap to the cover to provide a projecting edge for the cover when the closure flap is folded downwardly, said cover flap having downwardly diverging transverse slits extending from the ends of the longitudinal slit providing an inwardly deflectable portion, the upper edge of which is spaced vertically from said projecting edge of the cover to provide a tongue receiving opening when the closure flap is disposed angularly relative to the cover, and a tongue provided with keepers at its ends, said tongue being hingedly connected to the top edge of the front wall in alignment with the said deflectable portion of said closure flap and being insertable through said tongue receiving opening to be disposed on the inner side of the cover, when the carton is fully erected, with its keepers in engagement with the inner side of the closure flap at the ends of said longitudinal slit therein the said projecting edge of the cover and the said deflectable portion facilitating the interlocking engagement of the tongue with the closure flap.

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