Aug. 28, 1956 A. J. WEISS 2,760,711

FOLDING PAPERBOARD CARTON AND CARTON BLANK

Filed Nov. 1, 1950

Fig. 1

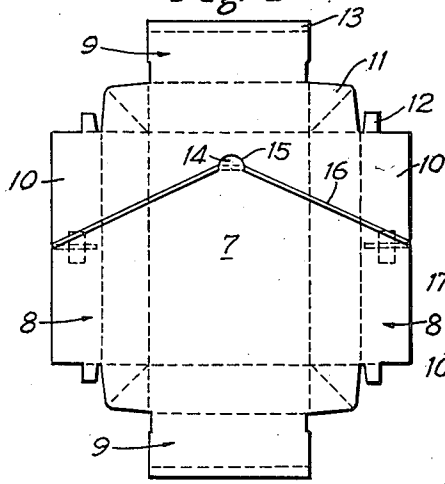


Fig. 2

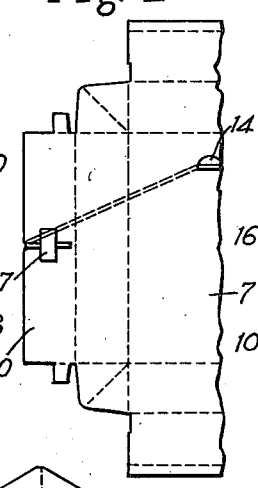


Fig. 3

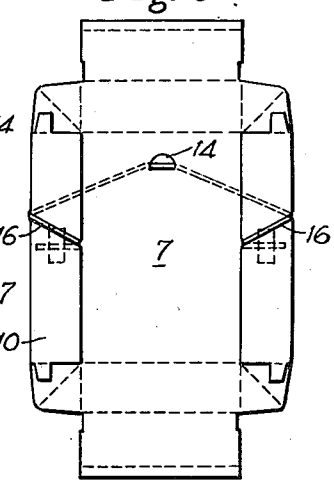


Fig. 4

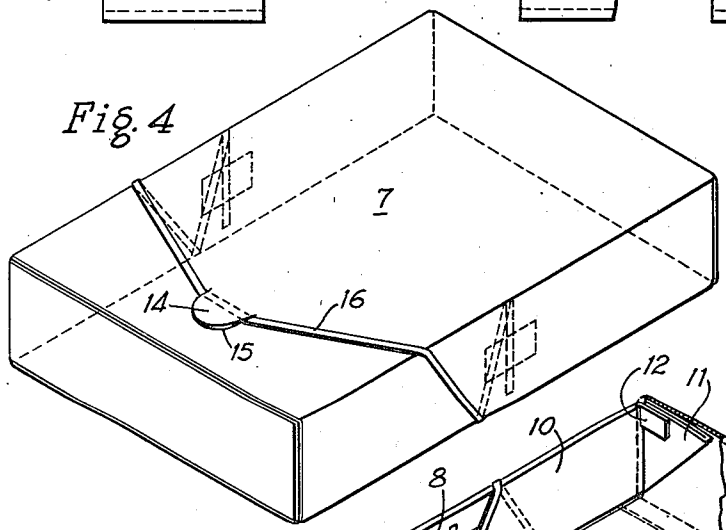


Fig. 5

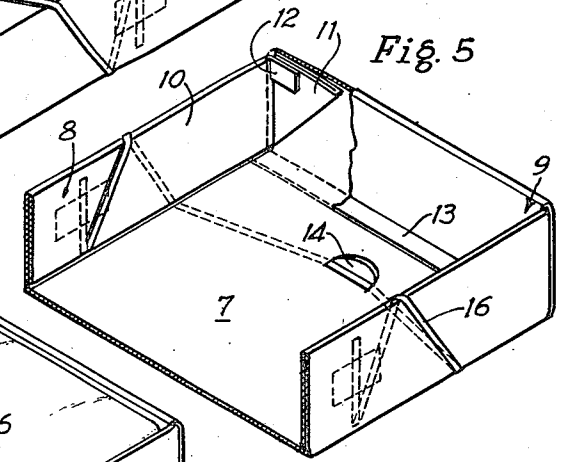
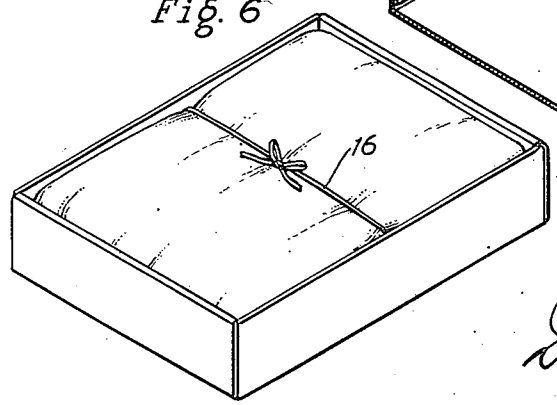


Fig. 6



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FOLDING PAPERBOARD CARTON AND CARTON BLANK

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Application November 1, 1950, Serial No. 193,370

7 Claims. (Cl. 229—46)

The invention relates to paperboard cartons and carton blanks.

Summary

I have devised a blank for forming carton bodies provided with means for tying the contents of the carton in place with a tape or string, and which includes improved means for measuring or predetermining the correct length of the ties. It includes also improved means for securing the tape or string in such a way as to permit the blank to be run through an automatic gluing and/or folding machine. My blank comprises the usual bottom, side wall and end wall forming panels, a tongue formed in the bottom panel, and a tape hooked over the tongue and having its ends secured to the side wall panels at points which are offset with respect to the tongue. Thus the tape extends diagonally of the blank at either side of the tongue; thence it passes over the side edges of the blank and is secured to the reverse side of the blank. The side wall panels preferably have inwardly folding flaps, and the ends of the tape are secured to these flaps.

Description

In the drawings, I have shown the application of my invention to a shirt box or the like, and to the blank from which it is formed. This box and its blank embody my invention in what I now consider to be its best and preferred form.

Fig. 1 is a plan view of the blank, seen from that side which is to form the outside of the box, with tape affixed.

Fig. 2 is a fragmentary plan view of the opposite side of the blank.

Fig. 3 is a plan view of the blank after the side wall inner flaps have been folded inwardly to provide a double thickness. This view is from the same side as Fig. 2.

Fig. 4 is a rectilinear perspective view, enlarged, of the finished box as set up for use. In this view the box is bottom side up.

Fig. 5 is a rectilinear perspective view, enlarged, of the finished box, right side up. The figure is in section and is partly broken away to illustrate the construction of a typical box corner.

Fig. 6 is a somewhat reduced rectilinear perspective view of the finished box, right side up, loaded, and with the severed tape tied over the contents.

The blank has a bottom forming panel **7**, side wall forming panels **8**, and end wall forming panels **9**, although the end wall forming panels may be omitted if desired, as for example when an overwrap of cellophane is used. The side wall forming panels have inwardly folding flaps **10** to form side walls of double thickness. The various panels are defined by the usual score or fold lines which are represented by dotted lines in the drawings. Also, depending upon the particular style of carton in which the invention is to be used, there may be provided, if desired, "simplex" corners **11**, glue laps **12**, locking tabs **13**, etc., the purposes and construction of which are so well known in the folding paperboard carton business as to make any detailed description of them here entirely superfluous.

Coming now to the construction which more particularly identifies my invention, bottom forming panel **7** is provided with a tongue **14**, conveniently formed by die-cutting an arcuate slit **15** therein during the blanking and scoring operation. A tape **16** is hooked over this tongue and extends diagonally of the blank at either side of the tongue, thence passing over the side edges of the blank and being secured, as by means of glued strips **17**, to the reverse side of the blank. Tape **16** may be a woven cloth tape, or a piece of string, or any other desired flexible tie means, and it will of course be understood that all such equivalent means are intended to be included within the meaning of the term "tape" as used herein and in the appended claims. While the construction particularly described has just one tongue **14**, it is feasible to provide two or more tongues. Where several tongues are used, it is possible to obtain a tape of additional length as may be desired where the carton is of more than average depth.

When the inwardly folding flaps **10** are folded over as shown in Fig. 3, and desirably glued to the mating portions of the side wall forming panels, the ends of the tape **16** will have been firmly secured beneath the flaps. Note that the ends of the tape are secured at points which are offset with respect to tongue **14**. In the construction shown, this is brought about by locating the tongue near one end of the bottom panel **7**, and securing the tape ends near the center of the sides of the blank. The side edges of the blank preferably are notched slightly where the tape passes around them to exactly position the tape ends.

When the flat folded carton is set up for use, as shown in Fig. 4, following the usual setting up operation, the person who is packing the carton cuts the tape **16** with a razor blade or other sharp instrument at the point where the tape hooks over the tongue **14**, i. e. immediately adjacent one side or the other of the tongue. The articles to be packed are then put into the box, and the two ends of the tape are brought over the contents and tied as shown in Fig. 6.

The relative positions of the tongue **14** and the points of attachment of the ends of the tape exactly measures and predetermines the length of the tape. Tongue **14** is so located on the bottom panel **7** as to insure the correct length of tape for tying the contents of the carton in place. Since the tape is stretched tightly over the sides of the blank, it is held flat, and there are no loose ends or loops to interfere with the operation of the automatic folding and gluing machinery. Thus my invention serves a two-fold purpose. Also it makes a meat flat-folded carton as knocked down for shipment, and one which is very easy to handle.

The terms and expressions which I have employed are used in a descriptive and not a limiting sense, and I have no intention of excluding such equivalents of the invention described, or of portions thereof, as fall within the purview of the claims.

I claim:

1. In combination, a paperboard carton blank having bottom and side wall forming panels, a tongue formed in the bottom panel, and a tape hooked over said tongue and extending diagonally of the bottom panel and having its ends permanently secured to said side wall panels at points which are offset angularly with respect to said tongue to increase the length of the tape so that its ends may be easily tied after being cut to convert the tape into an article binding member.

2. In combination, a paperboard carton blank having bottom, side wall and end wall forming panels, said side wall forming panels having inwardly folding flaps to form walls of double thickness, a tongue formed in the bottom panel, and a tape hooked over said tongue and extending diagonally of the bottom panel and having its ends permanently secured to the flaps of said side wall forming panels at points which are offset angularly with respect to said tongue to increase the length of the tape so that its ends may be easily tied after being cut to convert the tape into an article binding member.

3. In combination, a paperboard carton blank having bottom, side wall and end wall forming panels, said side wall forming panels having inwardly folding flaps to form walls of double thickness, a tongue formed in the bottom panel, and a tape hooked over said tongue, the tape extending diagonally on one face of the bottom panel at both sides of the tongue and thence passing over the side edges of the blank and being permanently secured to the reverse side of the blank at points which are offset with respect to said tongue to increase the length of the tape so that its ends may be easily tied after being cut to convert the tape into an article binding member.

4. A flat-folded carton having bottom, side wall and end wall panels, said side wall panels having inwardly folded flaps, a tongue formed in the bottom panel, and a tape hooked over said tongue and extending diagonally of the bottom panel and having its ends permanently secured beneath the inwardly folded flaps of the side wall panels at points which are offset angularly with respect to said tongue to increase the length of the tape so that its ends may be easily tied after being cut to convert the tape into an article binding member.

5. A paperboard carton having bottom, side wall and end wall panels, said side wall panels having inwardly folding flaps forming walls of double thickness, a tongue formed in the bottom panel, and an article binding tape hooked over said tongue and extending diagonally of the bottom panel and having its ends permanently secured to the flaps of said side wall panels at points which are angularly offset with respect to said tongue to increase the length of the tape so that it ends may be easily tied after being cut to convert the tape into an article binding member.

6. A paperboard carton having bottom, side wall and end wall panels, said side wall panels having inwardly folded flaps forming walls of double thickness, a tongue formed in the bottom panel, and an article binding tape hooked over said tongue, the tape extending diagonally of the bottom panel at either side of the tongue and thence passing around the outside of the side walls and being fixedly secured between the folds of the double thickness side walls of the carton at points which are offset with respect to said tongue to increase the length of the tape so that its ends may be easily tied after being cut to convert the tape into an article binding member.

7. A paperboard carton having bottom and side panels, a tongue formed in the bottom panel, and a tape having an unsecured measured length greater than the distance between the side walls for tying articles within said side walls, said tape being hooked over said tongue and extending diagonally of the bottom panel and having its ends secured to said side wall panels at points which are offset angularly with respect to said tongue, said tape upon severing being operative as an article binding member.

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