Aug. 2, 1966 C. L. WOOLSEY 3,263,896

CARTON WITH TABS FOR SUPPORTING INNER FLAPS

Filed Oct. 21, 1965

FIG. 1

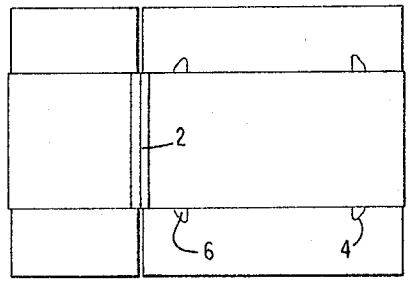
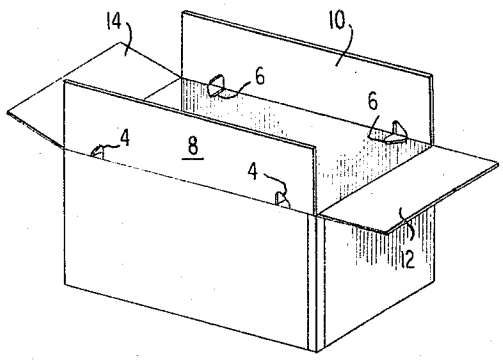



FIG. 2



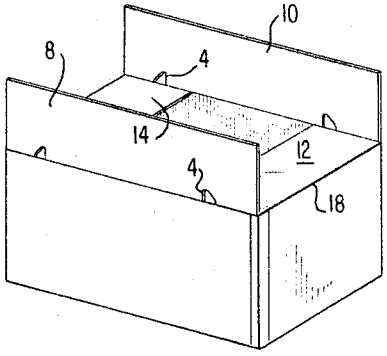




FIG. 3

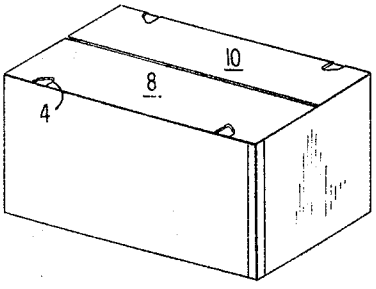



FIG. 4

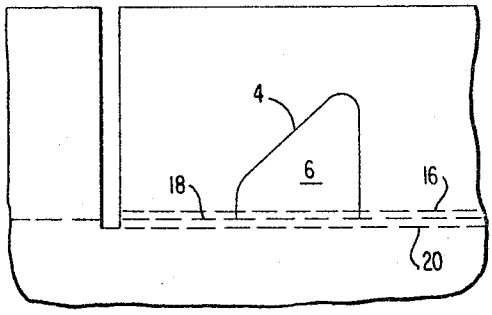



FIG. 5

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# CARTON WITH TABS FOR SUPPORTING INNER FLAPS

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1 Claim. (Cl. 229—37)

This invention relates to a carton construction and more particularly to tab means for the flaps thereof which serve to prevent inward deflection thereof both during assembly operations, as in sealing the flaps, and in normal use so as to protect the contents thereof.

It is therefore an object of this invention to provide tabs for the flaps of a carton which provide a support during sealing operations so as to prevent them from deflecting inwardly so as to make possible a secure bond between the flaps.

It is a further object to provide tabs for the flaps of a carton which serve as supports therefor so that the flaps are prevented from deflecting inwardly and thus prevent damage to the contents within the carton.

Other objects and advantages will become apparent from the following description when taken in conjunction with the drawings, wherein:

FIG. 1 is a plan view of the carton in knocked down condition;

FIG. 2 is a perspective view of the carton with the tabs in position to receive the end flaps;

FIG. 3 is a perspective view with the end flaps being supported by the tabs;

FIG. 4 is a perspective view with all the flaps closed; and,

FIG. 5 is a partial plan view of a portion of the carton showing the details of one of the tabs of this invention.

The carton is formed from a single blank and is provided with a seal tape **2** as is well known in the art. The carton is provided at each end with a pair of end flaps **12** and **14** and with a pair of side flaps **8** and **10**. Since each end of the carton is of similar construction, only one end will be described herein.

The tabs of this invention are indicated by numeral **6** and are formed from cutouts **4** in the side flaps. As seen in the figures, two tabs are formed from each side flap, although the particular number utilized is optional. For example, four tabs may be formed from each side flap disposed at any location desired with the only requirement being that they underlie the end flaps in the assembled condition of the carton as will later be described.

The tabs, as seen in FIG. 5, are of a generally triangular configuration with a pair of rounded apexes. They are preferably formed during the fabrication of the carton blank by means of a cutting die, although it is quite possible to form them in a later operation by any suitable means such as a hand tool.

Although shown to be of a generally triangular configuration, the tabs may take any other suitable shape, such as square, rectangular or rounded. The generally triangular shape shown, however, is preferred as will later be described.

The flaps of the carton are separated from the walls of the container by score or crease lines **18**, as is conventionally done in the art. However, two additional



score lines are provided between the side flaps and the carton walls, as indicated by numerals **16** and **20** in FIG. 5. The tabs are cut in such a way that they terminate at the middle score line **18**. The provision of the two additional score lines makes possible a snug interfit between the side flaps, end flaps and tabs as will later become apparent.

Prior to closing the flaps, the tabs are made to pivot about the crease lines **18** so as to point inwardly as seen in FIG. 2. This may be accomplished either manually with a suitable tool or in any other suitable manner. The end flaps are then moved into the position shown in FIG. 3 wherein the undersides of said flaps engage the tabs. The side flaps are then moved into overlying relationship as seen in FIG. 4.

Any suitable means may be employed to secure a permanent closure such as staples, an exterior sealing tape, or glue or cement between the interfaces of the flaps. Regardless of the method employed, an exterior pressure of at least some degree, however, is usually required. By this invention, it is possible to exert a substantial pressure on the end of the carton in order to secure an effective closure due to the support offered by the tabs underlying the end flaps.

The provision of the tabs prevents separation of the flaps which is critical especially if a bonding method is employed, and also prevents the contents of the carton from being damaged. This would especially be critical in the case of light bulbs, glassware, or the like.

The tabs are of a configuration to resist deformation even under substantial loading. They are subjected mainly to bending and shear forces and for this reason are preferably of the generally triangular configuration shown. It is apparent that, due to this shape, the bending movements exerted on the tabs resulting from a uniformly distributed loading cause a twisting stress in the tabs. This twisting effect increases the loading capabilities of the tabs.

What is claimed is:

A closure for a carton having a pair of end walls and a pair of side walls, comprising: end closure flaps connected to each of said end walls which fold inwardly; side closure flaps connected to each of said side walls which fold inwardly to meet at their edges and to overlie the infolded end flaps; score lines between said side walls and said end walls; tabs integral with the side flaps along said score lines, said tabs being bendable outwardly from said side flaps to engage the undersides of said end flaps in the closing of the carton and thereby restrain the further inward movement of the end flaps.

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