

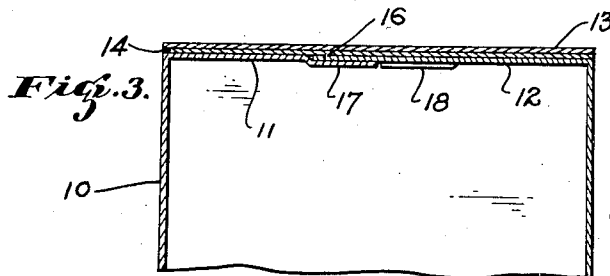
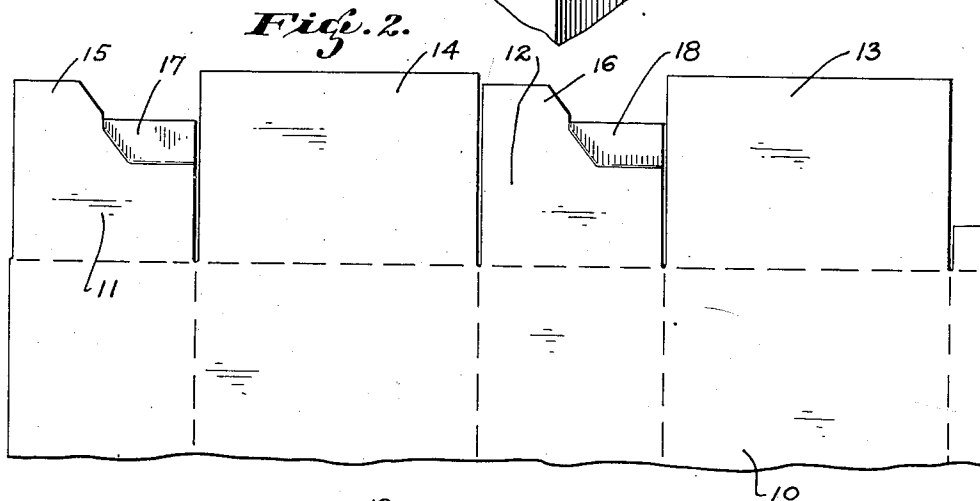
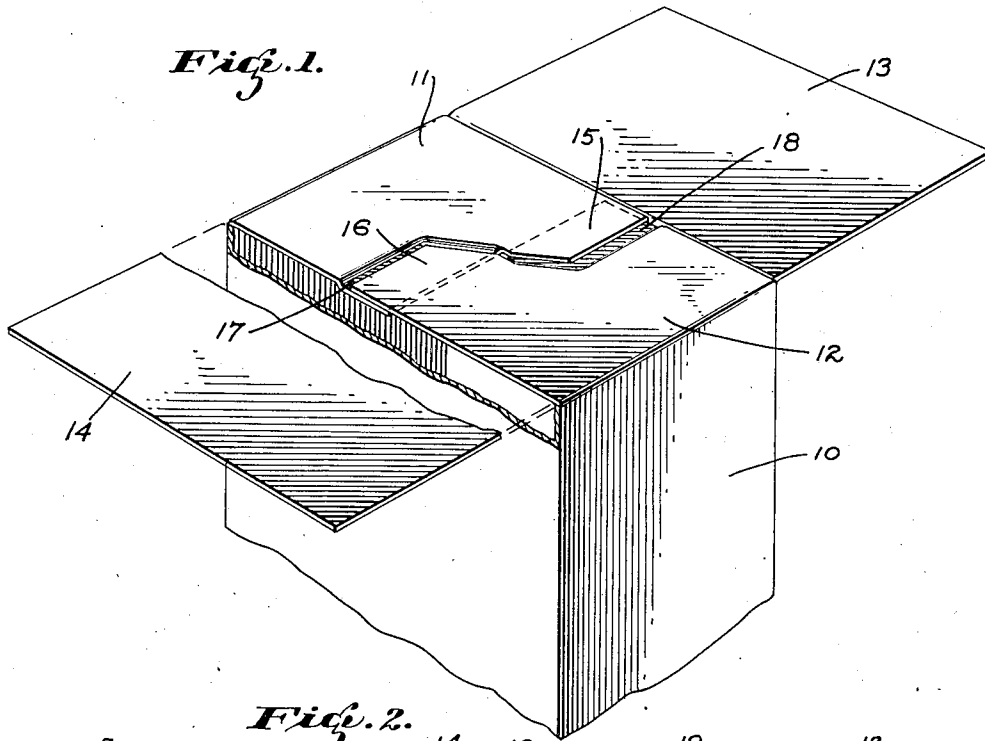
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CARTON

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CARTON

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My present invention relates to a new and improved carton, and particularly to a closure for the end of a rectangular package of the type such as is used for the packing of granular and powdered materials.

The object of my invention is to provide a new and improved enclosure for cartons of the type having overlapping flaps which are adapted to be glued together to seal the package.

A further object of my invention is to provide an improved interlocking arrangement of at least two of the flaps which will facilitate a gluing of the flaps together without fear of contaminating the contents of the carton during the gluing operations.

Other objects and advantages of my invention will be in part pointed out and in part evident from the following description taken in connection with the accompanying drawings wherein I have shown by way of illustration and not of limitation a preferred embodiment thereof.

In the drawings:

Fig. 1 is a fragmentary, perspective view with parts broken away, showing the component parts of my improved closure members,

Fig. 2 is a partially developed view showing the arrangement of the flaps upon the carton blank before it is folded, and

Fig. 3 is a partial, vertical, sectional view showing the interlocking arrangement of the flaps.

Before proceeding with a detailed description of my invention, it is thought that a few remarks upon the difficulties which my invention is designed to overcome will not be amiss. Prior to my invention, the majority of cartons used for purposes similar to that to which my improved carton is adapted, were provided with a pair of inner flaps which projected toward each other half way across the carton, over which other flaps were arranged to be folded and glued. This arrangement was found to work very satisfactorily, particularly for the bottoms of such cartons, as the material within the cartons served to hold the inner or short flaps in a plane extending across the bottom of the

carton, so that when pressure was applied to the remaining flaps in the gluing operation, a gluing of the flaps would be effected. However, in the case of the upper or top end of the carton, since the material in the carton usually settled away from the inner flaps, there was nothing to support the short flaps and to hold them into contact with the overlapping flaps and, as a result, a poor sealing of the carton resulted. Under these conditions there was also danger of the contents of the carton becoming contaminated by the glue or other sealing material. In other words, with the straight flaps of the type commonly used in prior art devices there is a tendency for the inner flaps to sag inwardly during the gluing operation and, as a result, the gluing was imperfect and the carton became unsealed and often the glue oozed into the sugar. By an interlocking arrangement of at least two of the flaps in a manner as will hereinafter appear, I have provided an arrangement wherein the inner flaps tend to support each other so that there will be no inward sagging thereof, even though the carton is not completely filled, and as a result the carton may be perfectly sealed during the gluing process.

In the drawings, 10 designates the body of a carton which is preferably of cardboard or other similar material. Formed integrally upon the ends of the carton 10, I show oppositely disposed flaps 11 and 12 which will be described in greater detail hereinafter. These flaps are shown as extending from the narrow sides of the carton 10. Arranged at right angles to the flaps 11 and 12 I also provide two additional flaps 13 and 14 which are adapted to fold over the flaps 11 and 12 when the package is sealed. The flaps 11 and 12 in this embodiment of my invention are provided respectively with outwardly extending tongues 15 and 16 which project over embossed portions 17 and 18 also formed respectively upon the flaps 11 and 12.

With this arrangement of the overlapping tongues 15 and 16 in conjunction with the embossed portions 17 and 18, it will be readily seen that, when the flaps 11 and 12 are folded into the position shown in Fig. 1, their outer surfaces will be held in substantially a flat

plane extending across the end of the package. With this arrangement, it will also be readily seen that when either of the flaps 13 or 14 is folded thereover their surfaces will contact throughout substantially the complete area of the end of the carton and that, as a result, when glue is applied therebetween, a firm bond will be obtained at this point.

This embodiment has been found to be of considerable utility where cartons of the type contemplated by my invention are filled, closed, and sealed by machinery in an automatic manner, as the packing, closing and sealing of packages of this type by a machine requires that the top closure be made while that particular end is uppermost and at a time when, due to the packing characteristics of the material enclosed, the flaps 11 and 12 are in most cases unsupported, as previously suggested, by material contained in the carton.

By referring to Fig. 2, it will be seen that the application of my improvement to a carton blank does not entail any extensive modification of an ordinary carton blank, practically the only outstanding difference over that of a standard carton being in the provision of the tongues 15 and 16 and the embossed portions 17 and 18 upon the flaps 11 and 12.

By referring to Fig. 3, which is a section taken through the package at the point corresponding to the tongue 16, it will be seen that the embossed portion 17 upon the flap 11 is just sufficiently deep to accommodate the projection or tongue 16 upon the flap 12. This view also clearly indicates the manner of interlocking the flaps 11 and 12 and shows them to be supported in this interlocking manner in a substantially flat plane over which the flaps 13 and 14 may be folded, as here illustrated.

While I have, for the sake of clearness and in order to disclose my invention so that the same can be readily understood, described and illustrated specific devices and arrangements, I desire to have it understood that this invention is not limited to the specific means disclosed but may be embodied in other ways that will suggest themselves, in view of this broad disclosure, to persons skilled in the art. It is believed that this invention is broadly new and it is desired to claim it as such so that all such changes as come within the scope of the appended claims are to be considered as part of this invention.

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

1. An end closure for cartons comprising a plurality of overlapping flaps, one extending from each side of the carton, at least two of said flaps having embossed portions over which a portion of the opposite flap may en-

gage, whereby said flaps will be held in substantially the same plane.

2. In an end closure for cartons of the type which is permanently sealed by an adhesive, the combination of a pair of oppositely disposed flaps having embossed and overlapping portions which co-operate to retain the flaps in a plane extending across the end of the carton, whereby a gluing of other flaps thereupon will be facilitated.

3. A closure for the top end of granular material containing cartons comprising a pair of oppositely disposed flaps having interlocking projections extending from opposite sides thereof and embossed portions adjacent thereto for the reception of said interlocking portions, whereby a substantially flat surface will be presented by said two interlocking portions, said closure also consisting of other flaps at right angles to said first flaps adapted to be glued in their closed position upon said first flaps.

4. A carton closure of the character described comprising a pair of flaps hinged to opposite sides of a carton and adapted to be swung toward each other whereby their inner ends will engage and close the carton, a projecting tongue on one side of the inner end of one flap, a similar tongue on the opposite side of the inner end of the other flap, said tongues being adapted to overlies a portion of the flaps upon normal closing thereof, and an embossed portion on each flap to receive the overlying tongue of the other.

5. A carton closure of the character described comprising a pair of flaps hinged to opposite sides of a carton and adapted to be swung toward each other, whereby their inner ends will engage and close the carton, one part of each flap being longer than another part thereof, a longer part of each flap being opposite a shorter part of the other flap, the sum of the lengths of a short part on one flap and a short part on the other flap being not greater than the distance between the hinged connections of said flaps to said carton and the sum of the lengths of a long part on one flap and a long part on the other flap being greater than the distance between the hinged connections of said flaps to said carton, whereby concurrent swinging together of said flaps will cause a longer part of each flap to overlies a shorter part of the other flap.

6. A carton closure of the character described comprising a pair of flaps hinged to opposite sides of a carton and adapted to be swung toward each other, whereby their inner ends will engage and close the carton, one part of each flap being longer than another part thereof, a longer part of each flap being opposite a shorter part of the other flap, the sum of the lengths of a short part on one flap and a short part on the other flap being not greater than the distance between

the hinged connections of said flaps to said carton and the sum of the lengths of a long part on one flap and a long part on the other flap being greater than the distance between
5 the hinged connections of said flaps to said carton, whereby concurrent swinging together of said flaps will cause the longer part of each flap to overlie the shorter part of the other flap, the longer and the shorter parts
10 of each flap being substantially each one-half the width of said flap.

JOSEPH IACOBITTI.