April 2, 1940. W. G. GIBSON ET AL 2,195,922

DISPENSING CONTAINER

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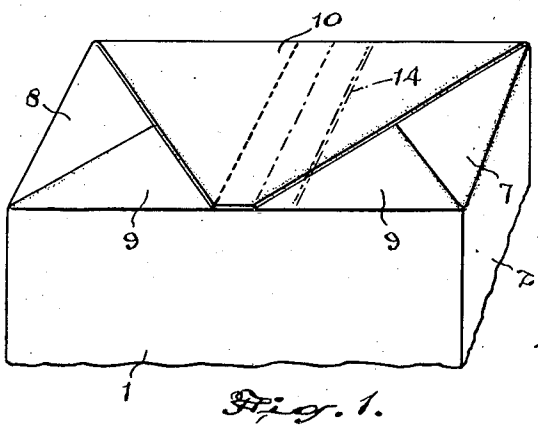


Fig. 1.

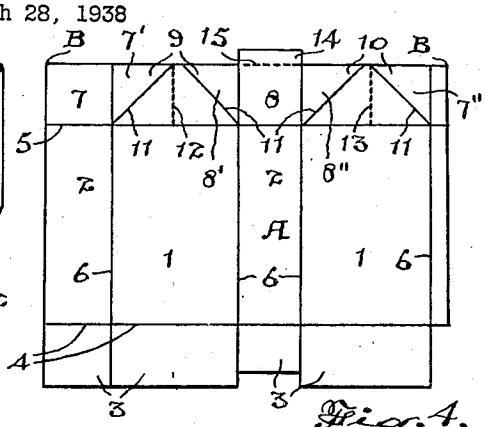


Fig. 4.

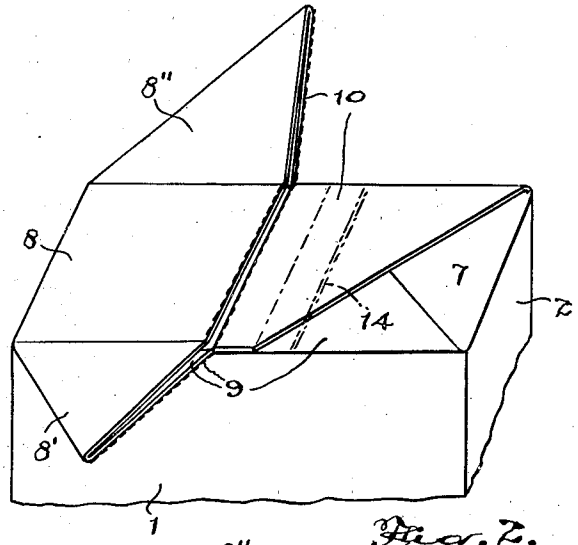


Fig. 2.

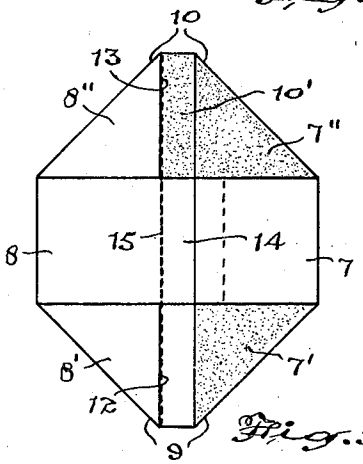


Fig. 5.

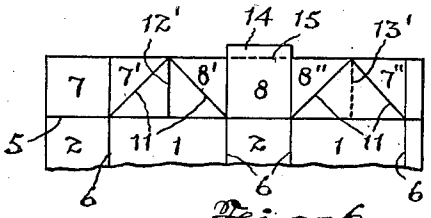


Fig. 6.

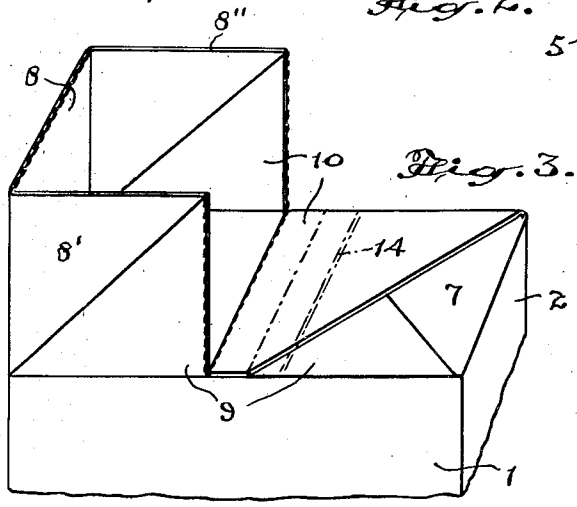


Fig. 3.

Inventors.
William G. Gibson.
Francis A. McDonald.
Philip Chatterley.
by A. J. Drummond atty.

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DISPENSING CONTAINER

William G. Gibson, Newtonbrook, Ontario, and Francis A. McDonald and Philip Chatterley, Toronto, Ontario, Canada

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6 Claims. (Cl. 229—17)

The invention relates to improvements in cartons of the type having folded end closures adapted to be unfolded in such a manner that a pouring or dispensing spout is provided.

The principal objects of this invention are to provide an improved form of dispensing carton or package which will be of rugged construction and readily assembled and which may be easily opened to form an effective pouring spout, but which will be effectively sealed when closed.

The principal feature of the invention resides in the novel end construction of a carton with end and side closure flaps, with the side closure flaps folded inwardly over the end closure flaps and secured together at one side only of a line of severance extending perpendicular to the base of the side folds.

In the drawing Figure 1 is a perspective view of the upper portion of a carton constructed in accordance with the present invention.

Figure 2 is a view similar to Figure 1 showing the spout-forming portions of the infolded flaps broken away in the act of opening the carton.

Figure 3 is a view similar to Figure 2 showing the broken away portions of the infolded flaps unfolded and extended to form a pouring or dispensing spout.

Figure 4 is a plan view on a reduced scale showing a blank prior to assembly into carton form.

Figure 5 is a plan view on a reduced scale showing the end flaps turned inwardly and showing glue applied to the shaded areas of the side closure flaps immediately prior to turning inwardly to overlap one another and the end closure flaps.

Figure 6 is a fragmentary plan view of a modified form of blank.

In the form of the invention shown a blank A is first formed of suitable material and of the desired size in accordance with the shape and size of carton desired.

The blank is provided with fold lines forming side panels 1 and edge panels 2 and suitable bottom closure flaps 3 project therefrom beyond the fold line 4.

The present invention is particularly concerned with the special formation, folding and scoring of the top-forming portion of the blank which extends beyond the fold line 5 and which is represented in entirety at B. The longitudinal fold lines 6 are carried across the top-forming section B, forming foldable end closure flaps 7 and 8 and side closure flaps 9 and 10 of rectangular form and alternating therewith.

Diagonal fold lines 11 converge outwardly from the inner extremity of the side flaps 9 and 10 from the score line 5 to converge or substantially converge at the outward extremity of the flaps 9 and 10 intermediate of the length thereof and rows of perforations 12 and 13 extend perpendicularly from the fold line 5 transversely of the side flaps 9 and 10 respectively, substantially through the apex of the diagonal fold lines 11.

The end closure flap 8 is provided with a tongue extension 14 partially severed therefrom by a row of perforations 15 parallelling the fold line 5.

In assembling the carton the closing of the upper end thereof is accomplished by first folding the end flap 8 inwardly which carries with it the triangular portions 8' and 8'' of the side flaps 9 and 10 respectively. The tongue projection 14 is coated with an adhesive and the end closure flap 7 is then turned inwardly thereover to adhere to the gummed surface of the tongue 14 and carrying with it the triangular portions 7' and 7'' of the side closure flaps 9 and 10 respectively as may be best seen by reference to Figure 5, where it will be noted that the lines of perforations 12, 13 and 15 come into alignment transversely of the carton.

The exposed surfaces of the triangular flap portions 7' and 7'' and also such portion 10' of the side flap 10 which may be exposed, are coated with an adhesive as indicated by dotted shading and the side flap 9, including the triangular flap portions 7' and 8', is then turned inwardly so that the glued portion 7' adheres to the inturned end panel 7, after which the other side flap 10, together with its inturned triangular portions 7'' and 8'', is turned inwardly to overlie the inturned side flap 9 so that the glued surfaces will adhere to the underlying portion of the latter.

It is important to note that the adhesive is applied to one side only of the lines of severance 12, 13 and 15 and that these lines of severance are brought into register the one above the other when the side flaps 9 and 10 are turned inwardly to seal the carton, so that the carton may subsequently be easily opened by pressing inwardly with the thumb nail immediately at one side of the aligned perforations, or if desired, a knife may be simply drawn along the line of severance to effect the opening, whereupon the unglued end flap 8, together with the triangular portions 8' and 8'' and the outer mating portions of the side flaps 9 and 10, may be turned outwardly to form the effective pouring spout as best illustrated in Figures 2 and 3, while the remaining

portions of the overlapping flaps will remain firmly glued together.

When it is desired to again close the carton the unfolded flap portions may be readily folded inwardly and the five-ply edge formation extending along the line of severance will present an extensive frictional contact with the adjacent portions of the sealed flaps which will effectively retain the flaps closed in a substantially sealed sanitary manner.

The above construction has the advantage that the pouring spout will be located with its bottom forming an extension of a narrow edge panel of the carton in the case of a rectangular carton, so that a more convenient grip may be had of the carton in dispensing and the rectangular side portions of the spout formed by the triangular flap portions 8' and 8'' and the adjacent portions of the flaps 9 and 10, will present extensive areas beyond the end of the open carton which will effectively guard against the contents flowing to either side of the spout, as would be the case if the side walls of the spout terminated along a line diagonally connecting the outer extremity of the bottom with the line of severance of the glued flap portions.

While we have shown and described a specific preferred embodiment of the present invention for purposes of illustration, the invention is not to be construed as restricted in this regard as it is capable of various structural interpretations within the spirit of the invention and the scope of the appended claims.

For example as shown in Figure 6 the line 12' corresponding to the line 12 of Figure 4 may be cut completely through rather than perforated, while the line 13' may be perforated similar to line 13 of Figure 4 so that it will not be necessary to break through both flaps 9 and 10 in opening the package and in certain cheaper types of containers the tongue 14 with its accompanying perforations may be dispensed with.

Further, the construction is such that without altering the principle of the invention, the side flaps may where it suits the requirements be first turned inwardly and glued at one side of the line of severance, while the end flaps 7 and 8 may be turned inwardly thereover so that the line of severance 15 will be on the outward side in which case the portions 7' and 7'' and 8' and 8'' will be folded inwardly thereunder in the reverse manner to that where the side flaps 9 and 10 are outermost.

What we claim as our invention is:

1. A container having closure flaps unfoldable in part to form the bottom and side walls of a pouring spout, said flaps being folded inwardly in overlapped relation with the bottom-forming portion innermost and the side-wall-forming portions of the spout overlapping the said bottom-forming portion of the spout on its outward side, said closure flaps being secured together at one side only of a line of severance extending perpendicularly from the fold line, of at least the outermost flap.

2. A container having side closure flaps folded inwardly and having convergent portions overlapping and secured together at one side only of a line of severance extending perpendicularly from the line of fold substantially through the apex, the unsecured portions thereof on the other side of said line of severance comprising bottom and sides of a pouring spout with the said spout bottom folded inwardly to underly the side portions of the spout and being adapted to be unfolded to form a pouring spout.

3. A carton having inturned end and side flaps having overlapped spout-forming portions thereof readily unfoldable and connected with the remaining portions by at least double row of perforations aligned one above the other, said spout-forming portions being initially releasable only by breaking through both of said rows of perforations, the portions of the inturned flaps on the other side of said rows of perforations being secured together.

4. A carton as claimed in claim 3 in which said readily unfoldable spout-forming portions comprise bottom and side walls of the spout each separably connected respectively with the component secured portions of said end and side flaps along a row of perforations, the resultant triple row of perforations being arranged subjacent the one to the other in perpendicular relation to the base of the outer folds.

5. A carton having overlapping closure flaps at one end including bottom and side portions of a pouring spout initially connected respectively with the remaining portions along a triple line of severance, the latter portions only being secured together, whereby when the unfoldable portions are again refolded there will be presented at least a triple thickness of material to present extensive frictional holding contact with adjacent edges of the secured portions of the flaps.

6. A carton having end closure flaps, said flaps being so secured, perforated and scored that portions thereof when unfolded form the bottom and side walls of a pouring spout, and when folded are disposed with the bottom-forming portion of the spout innermost and overlapped on the outward side by the side-forming portions, said walls presenting five edges alignable on the refolding of said portions to present extensive frictional holding contact with the adjacent exposed edges of the remaining portions of said closure flaps to effect a substantial sanitary resealing of the carton.

WILLIAM G. GIBSON.
FRANCIS A. McDONALD.
PHILIP CHATTERLEY.