

Nov. 12, 1935.

R. FORRER

2,020,680

POURING CARTON

Filed May 15, 1935

2 Sheets-Sheet 1

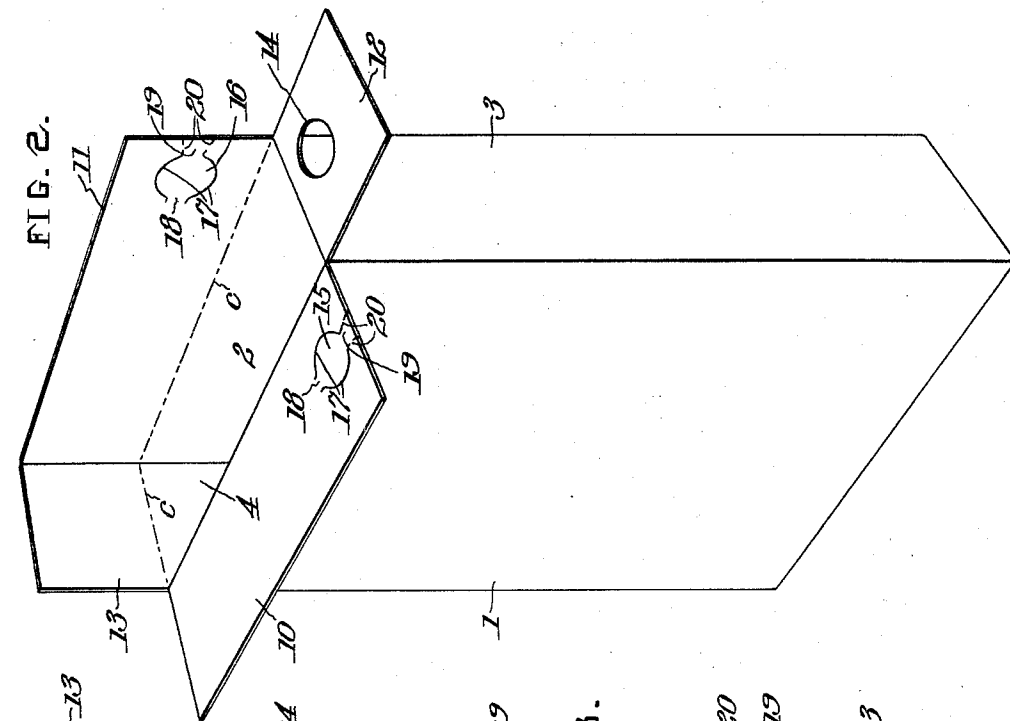


FIG. 2.

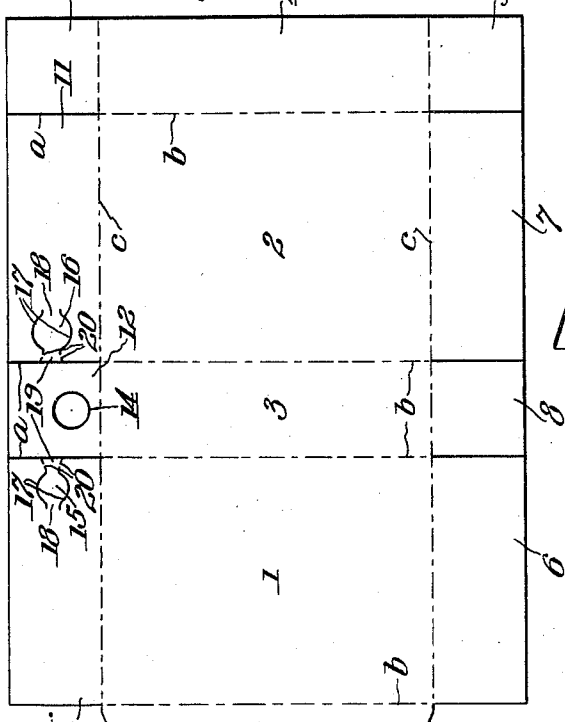


FIG. 1.

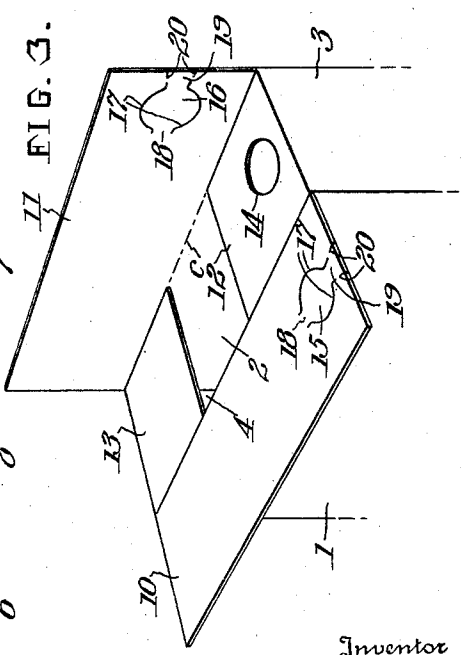


FIG. 3.

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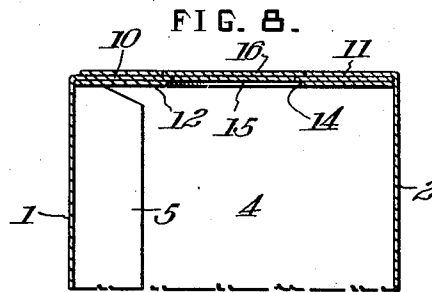
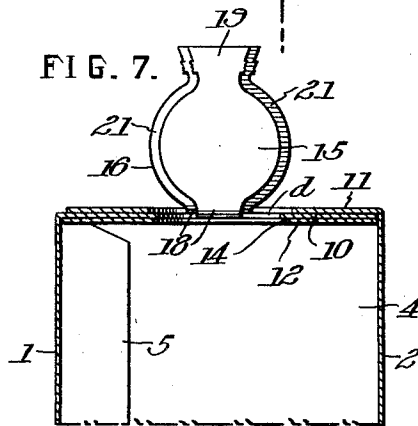
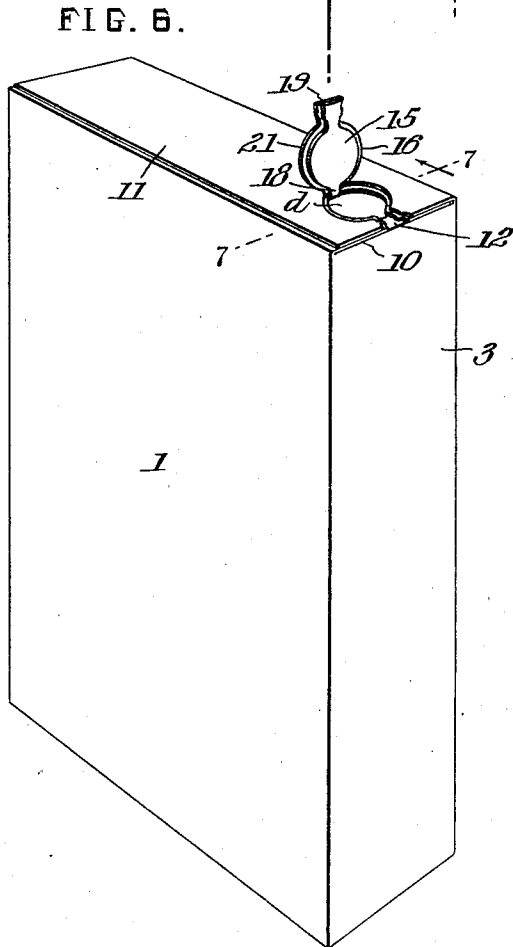
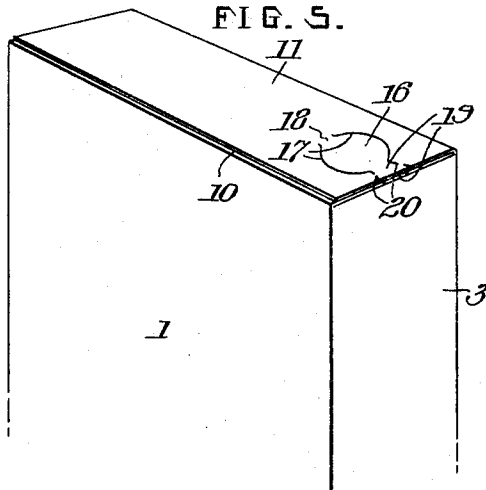
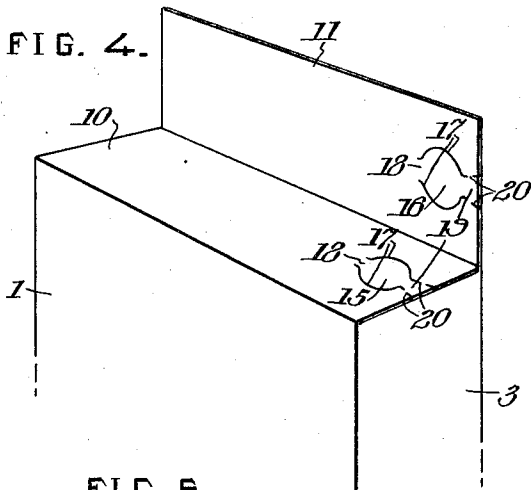
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2 Sheets-Sheet 2



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UNITED STATES PATENT OFFICE

2,020,680

POURING CARTON

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tion of Ohio

Application May 15, 1935, Serial No. 21,627

6 Claims. (Cl. 229—17)

This invention relates to cartons of the type generally used for packaging commodities such as salt, washing powders, soap chips and flakes, flour, rice, cereals and the like, and the invention has reference, particularly, to the provision of a pouring opening for such cartons.

Cartons of the kind referred to have been provided, heretofore, with various types of pouring openings and devices, formed not only as means integral with the material of the cartons themselves, but also as applied parts.

The object of the present invention is to furnish means, integral with the material of the carton, by which a suitable pouring opening may be provided, one feature of the invention being a preparation and arrangement of parts of the carton whereby these parts may readily be broken away to provide the desired opening, but when broken away remain in part attached to the carton so that they may be returned to their initial position to close the opening, when desired. Moreover, such closing movement of the parts is limited, whereby their projection within the carton is prevented, thus forming, in effect, a removable, or hinged, closure and stopper for the pouring opening.

The invention contemplates a carton of the customary folded blank type, having a body provided with a plurality of flaps adapted to be folded one upon another and thus secured and sealed in overlapping juxtaposed arrangement to close the carton end, certain of such flaps furnished with partially severed portions including hinge-forming parts joining these portions to the flaps; the partially severed portions subject to being torn or broken away so as to hinge upon their hinge-forming parts, to thus form a pouring opening which they are adapted to close, when desired, all as will be explained more fully hereinafter and finally claimed.

In the accompanying drawings illustrating the invention, in the several figures of which like parts are similarly designated, Figure 1 shows the blank from which the carton of the invention is formed.

Fig. 2 is an enlarged perspective view showing the blank folded to produce the carton, one end, which may be considered the bottom, being closed, and the other end, which may be considered the top or pouring end, having the flaps by which it is normally closed in unfolded or open condition.

Fig. 3 is a fragmentary perspective view similar to Fig. 2, but showing the flaps of the narrow sides

of the carton folded in at the top or pouring end of the carton.

Fig. 4 is a view similar to Fig. 3, but showing one of the flaps of a broad side of the carton folded in upon and secured to the flaps of the narrow sides.

Fig. 5 is a view similar to Fig. 4 but showing the pouring end of the carton completely closed and sealed.

Fig. 6 is a perspective view of the carton with the partially severed portions broken away and tilted back upon their hinge-forming parts to disclose the pouring opening.

Fig. 7 is a section taken substantially on the line 7—7 of Fig. 6, but showing the parts enlarged, and

Fig. 8 is a sectional view similar to that of Fig. 7, showing the pouring opening closed.

Referring to Fig. 1, it will be seen that the blank from which the carton of the invention is formed comprises a piece of ordinary boxboard, pasteboard, cardboard, or other suitable carton-forming stock, appropriately cut and scored to provide broad sides 1 and 2 and narrow sides 3 and 4 for the carton, and a securing strip 5 attached to the broad side 1.

The broad sides 1 and 2 are provided with flaps 6 and 7, respectively, and the narrow sides 3 and 4 are provided with flaps 8 and 9, respectively, all of which flaps when folded into overlapping engagement, and secured by suitable adhesive, as is customary, provide a closed and sealed end or bottom for the carton.

The opposite ends of the broad sides 1 and 2 are provided with flaps 10 and 11, respectively, and the opposite ends of the narrow sides 3 and 4 are provided with flaps 12 and 13, respectively, which, when folded into overlapping juxtaposed engagement and secured by suitable adhesive, as will be explained more fully hereinafter, provide a sealed top or pouring end for the carton.

The several sides and flaps referred to are delimited by the edges of the blank and by suitable cuts *a* and scorings *b* and *c*, as will be apparent from an inspection of Fig. 1.

The flap 12 of the narrow side 3 is provided with an opening 14, and the flaps 10 and 11 of the broad sides 1 and 2, respectively, are provided with portions 15 and 16, respectively, defined by slits 17, but joined to the flaps by hinge-forming parts 18 and by tabs 19, which tabs are only partially severed by spaced slits, as indicated at 20, so as normally to maintain the portions 15 and 16 intact with the flaps 10 and 11, respectively.

However, being frangible by virtue of their partially severed condition, the tabs 19 will enable the portions 15 and 16 to be broken away from the flaps except for their hinge-forming parts 18 as will later appear. It will be noted that the partially severed portion 16 is of greater area than the similar portion 15, for a purpose to be more fully described.

Referring now to Figs. 2, 3, 4, and 5, it will be seen that the carton is formed by folding the blank upon its vertical scorings *b* and attaching the strip 5 to the inner face of the narrow side 4 adjacent to its free edge. Then the flaps 8, 9, 6, and 7 are folded in, preferably in the order named, and secured together in overlapping, sealed engagement preferably by a suitable adhesive.

After the carton has been filled with the commodity to be marketed in it the top or pouring end is closed by folding in the flaps 12 and 13, and 10 and 11 in the order named these flaps all being secured together in overlapping sealed engagement and in juxtaposed relation by means of suitable adhesive.

Although in the foregoing description the bottom end of the carton has been referred to as the end first closed and sealed the top or pouring end may first be closed, and the bottom end closed and sealed after the carton is filled with the commodity to be marketed. In fact, this latter is the usual practice, the reversal of the operation, as described, being merely for the purpose of a ready accommodation of the description to the showing contained in the drawings.

With the end flaps 10, 11, 12, and 13 folded in and secured as described, and as shown particularly in Fig. 5, it will be apparent that the opening 14 in the flap 12 underlies the partially severed portions 15 and 16 of the flaps 10 and 11, respectively, and thus, when the tabs 19 are broken away at 20 and are disengaged from the adhering area of the flap 12, the portions 15 and 16, which are joined by adhesive, may be swung upwardly, as a unit, upon their hinge-forming parts 18, as illustrated in Figs. 6 and 7, thereby providing a pouring opening *d* in combination with the opening 14 formed in the flap 12, and through this opening the contents of the carton may be poured out.

As hereinbefore mentioned, it is to be noted that the area of the partially severed portion 16 is greater than that of its complement 15 and, consequently, the slits at 17 and 20 in the two flaps 10 and 11 do not register and the material of one flap seals the slits in the other to thus provide a perfectly tight or sealed closure. Moreover, the portion 16 being larger than the portion 15, it provides a rim or offstanding flange 21 around the portion 15, and this rim or flange functions, by contact with the underlying portion of the flap 10 to prevent the united portions 15 and 16 from being projected within the carton when these united portions are returned to their initial position, as illustrated in Fig. 8. This function is augmented by the united tabs 19 which bear against the exposed portion of the flap 12.

Thus the united severed portions 15 and 16 form in effect a hinged stopper and closure for the pouring opening, and provide an effective seal for the carton.

It will be apparent, furthermore, that due to the relatively rough or ragged edges of the tabs 19, formed by their broken-away portions, an appreciable frictional engagement will be formed between these edges and the adjacent complementary edges of the flaps 10 and 11 when the combined stopper and closure is returned to its initial

position, to thus hold it in such position and guard against accidental spilling of the contents through the pouring opening.

It will be obvious, from the foregoing, that in order to open the package for pouring of its contents from the pouring opening, it is merely necessary to press upwardly upon the united exposed edges of the tabs 19. This will cause the breaking away of these partially severed tabs and enable the portions 15 and 16 to be swung upwardly upon their hinge-forming parts 18.

Various changes and modifications are contemplated as within the spirit of the invention and the scope of the following claims.

What I claim is:—

1. In a pouring carton, a body having an end composed of a plurality of flaps folded into overlapping relationship, two of said flaps arranged in juxtaposition, each of said last-named flaps provided with a partially severed portion including a tab extending to the edge of its respective flap, and hinge-forming parts joining said partially severed portions with their respective flaps, the aforesaid tabs of said partially severed portions being frangible to permit tilting of said portions upon said hinge-forming parts to provide a pouring opening at the end of said carton.

2. In a pouring carton, a body having an end composed of a plurality of flaps folded into overlapping relationship, two of said flaps arranged in juxtaposition and one of same being the outside flap and forming the outer surface of the carton end, each of said last-named flaps provided with a partially severed portion including a tab extending to the edge of its respective flap, the said portion of the outside flap being of greater area than the similar portion of the adjacent flap and offstanding from the perimeter of same, and hinge-forming parts joining said partially severed portions with their respective flaps, the aforesaid tabs of said partially severed portions being frangible to permit tilting of said portions upon said hinge-forming parts to provide a pouring opening at the end of said carton, the greater area of the said portion of the outside flap preventing projection of same within the carton when the pouring opening is closed.

3. In a pouring carton, a body having an end composed of a plurality of flaps folded into overlapping relationship, two of said flaps arranged in juxtaposition, each of said last-named flaps provided with a partially severed portion including a tab extending to the edge of its respective flap, said last-named flaps having their adjacent faces secured together when juxtaposed, whereby the partially severed portions thereof are united, and hinge-forming parts joining said partially severed portions with their respective flaps, the aforesaid tabs of said partially severed portions being frangible to permit tilting of said portions as a unit upon said hinge-forming parts to provide a pouring opening at the end of said carton.

4. In a pouring carton, a body having an end composed of a plurality of flaps folded into overlapping relationship, two of said flaps arranged in juxtaposition and one of said flaps being the outside flap and forming the outer surface of the carton end, each of said last-named flaps provided with a partially severed portion including a tab extending to the edge of its respective flap, the said portion of the outside flap being of greater area than the similar portion of the adjacent flap and offstanding from the perimeter of same, said last-named flaps having their adjacent faces secured together when juxtaposed,

whereby the partially severed portions thereof are united, and hinge-forming parts joining said partially severed portions with their respective flaps, the aforesaid tabs of said partially severed portions being frangible to permit tilting of said portions as a unit upon said hinge-forming parts to provide a pouring opening at the end of said carton, the greater area of the portion of the outside flap preventing projection of same within the carton when the pouring opening is closed.

5. In a pouring carton, a body having an end composed of a plurality of flaps folded into overlapping relationship, two of said flaps arranged in juxtaposition, each of said last-named flaps provided with a partially severed portion, one of said portions including a tab extending to the edge of its respective flap, said last-named flaps having their adjacent faces secured together when juxtaposed, whereby the partially severed portions thereof are united, and a hinge-forming part joining the partially severed portion provided with a tab to its respective flap, the aforesaid tab being frangible to permit tilting

of said portions as a unit upon said hinge-forming part to provide a pouring opening at the end of said carton.

6. In a pouring carton, a body including two broad sides and two narrow sides, flaps forming extensions of said sides and adapted to be folded into overlapping relationship and thus secured to provide an end for the carton, the flap of one of said narrow sides provided with an opening, the flaps of the broad sides arranged in juxtaposition and each provided with a partially severed portion including a tab extending to the edge of its respective flap, the partially severed portions when juxtaposed overlying the aforesaid opening, and hinge-forming parts joining said partially severed portions with their respective flaps, the aforesaid tabs of said partially severed portions being frangible to permit tilting of said portions as a unit upon said hinge-forming parts to uncover said opening and thereby permit pouring of the contents of said carton there-through.

ROY FORRER.