

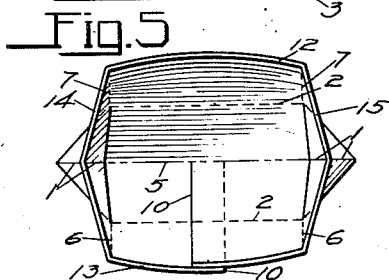
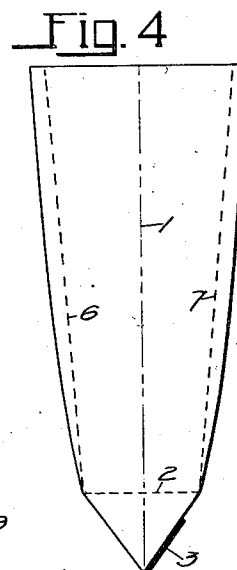
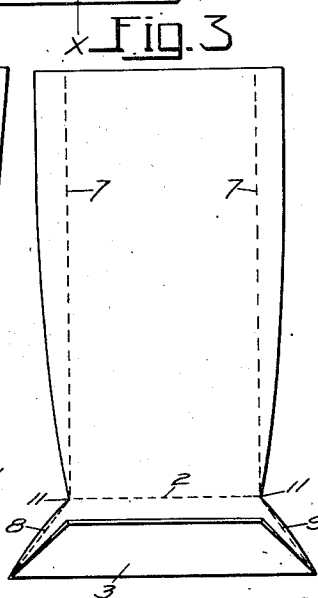
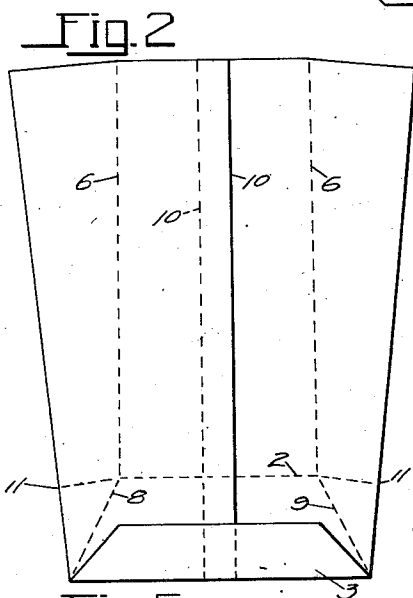
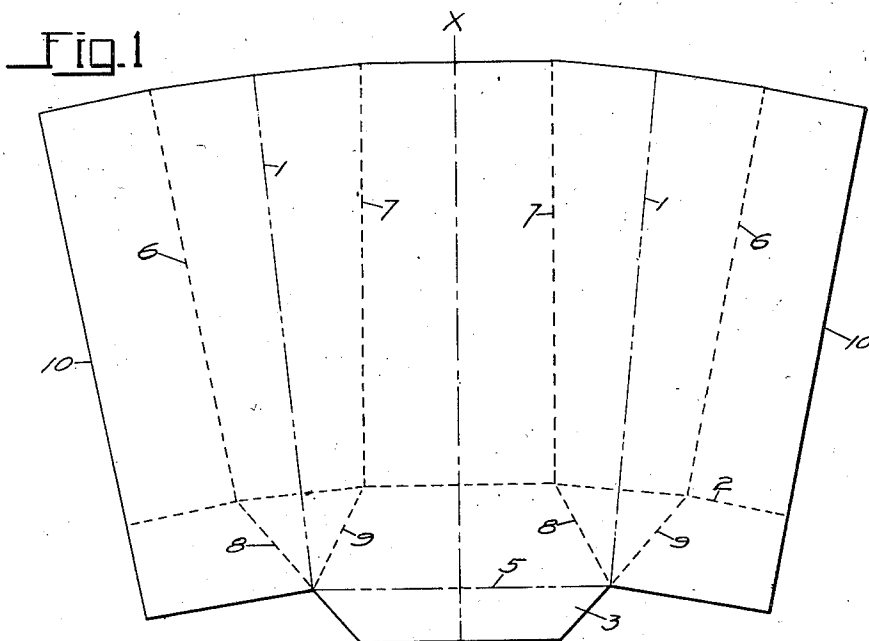
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QUICK SET UP FOLDING CONTAINER

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2,787,408

QUICK SET UP FOLDING CONTAINER

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1 Claim. (Cl. 229—16)

This invention relates to a quick set-up folding container such as is suitable for pop-corn.

At the present time pop-corn as sold in motion picture theatres and elsewhere is commonly placed in paper bags or in substantially rectangular vertically elongated cartons. The bags are difficult to open and to fill and to handle due to their flexibility, and the cartons take up an objectionable amount of space before filling, and are not easy of disposal after they have been emptied.

One of the objects of this invention is the provision of a flat, collapsed container of relatively light weight cardboard that takes up substantially no more space than a flat paper bag, before filling, but which container may be instantly opened for filling, and which container will stay open until purposely flattened. Thus the difficulty of opening, and filling, and holding a paper bag is overcome, and the advantages of the stiffer set-up carton are had free from the objections to the latter and at a much cheaper cost.

Another object of the invention is the provision of a collapsed, flat container that is adapted to be set-up for filling by the use of one hand only of the operator in a space of time no longer than is required to pick up the flat, collapsed container by said hand from the top of a pile, or from the end of a row, thereby enabling the operator to set up and to fill the containers as rapidly as though a supply of the containers was set up beforehand.

Other objects and advantages will appear in the description and in the drawings.

In the drawings, Fig. 1 is a plan view of the blank from which the container is formed.

Fig. 2 is a side elevational view of the flat container formed from the blank of Fig. 1.

Fig. 3 is a side elevational view of the container of Fig. 2 set up and ready for filling.

Fig. 4 is a side elevational view of the container of Fig. 3 as seen from a view point at right angles to that from which the container of Fig. 3 is seen.

Fig. 5 is a top plan view of the container of Fig. 3.

In detail, the blank of Fig. 1 is generally fan-shaped, and is formed with a pair of folding creases 1, that are spaced equally from opposite sides of an imaginary central line X—X bisecting the portion of the blank between said creases. This line X—X may be said to be the central axis of the blank in the present instance.

The folding creases 1 extend radially from a point on line X—X, the said point being spaced a substantial distance outwardly of said blank, and the fan shape of the latter is generally developed about said point.

The lower portion of the blank (looking at Fig. 1) is perforated along a line 2 that is equally spaced along its length from the lower edge of said blank (which edge is the one nearest the point on line X—X about which the fan shape is developed) except for an extension flap 3 that is integral with the blank along said lower edge between creases 1. A folding crease 5 is formed in the blank along a line defining the juncture between said flap

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3 and the central portion of the blank between creases 1.

At opposite sides of each crease 1, the blank is formed with lines of perforations 6, 7. The lines of perforations 7 are adjacent to each other between creases 1, and are preferably parallel, while the said lines of perforations at opposite sides of each crease 1 extend divergently upwardly relative to each such crease from the line of perforations 2. The degree of divergence of the lines of perforations 6, 7 from the crease 1 that is therebetween is the same.

Extending downwardly from the lower ends of each pair of lines of perforations 6, 7 and from the line of perforations 2 are relatively short lines of perforations 8, 9. These extend to the lower edge of the blank and to the lower end of each crease 1.

The crease 5 is straight and perpendicular to line or axis X—X and the lower free edges of the blank extending oppositely outwardly from the ends of crease 5 are preferably straight and extend divergently downwardly relative to each other. Also the lower edge of flap 3 is preferably straight, but the said edge extends slantingly upwardly at its ends to the ends of crease 5.

In folding the container to its flat, collapsed condition, the portions of the blank at the oppositely outwardly disposed sides of the pair of creases 1 are folded onto one side of the blank along said creases, and the latter are so positioned that the marginal portions along the opposite lateral edges 10 will then be in overlapping relationship. These marginal portions are glued together.

The flap 3 is then folded along crease 5 to overlie the lower marginal portions of the overlapped parts of the blank, as described in the preceding paragraph, and said flap is glued to said overlapped portions, resulting in the flat container as seen in Fig. 2.

These containers as seen in Fig. 2 can be stacked or positioned in a row so as to enable an operator to quickly pick up the exposed end container between the thumb and any one or more of the fingers of the same hand, with the thumb against one lateral edge adjacent to the point 11 where the line of perforations 2 is intersected by one of the creases 1, and with the other finger or fingers adjacent to similar point 11 where the line of perforations 2 is intersected by the other crease 1.

By reason of the arrangement of the line of perforations 2 between the pairs of lines 6, 7 of perforations, when the blank is folded flat as seen in Fig. 2 the registering or aligned sections of said perforations 2 directly at opposite sides of the creases 1 will extend slantingly upwardly from the opposite lateral edge of the container (or from points 11) as seen in Fig. 2. This is the preferred structure.

It is also seen in Fig. 2 that the upper edge of the container is not perpendicular to the central axis of the container for its full length, but instead, the sections that adjoin the lateral edges of the container slant upwardly from said lateral edges.

In order to set up the container when it is held in a hand of the operator, as already described, it is only necessary to press the lateral edges of the carton toward each other by the pressure of the fingers holding the flat container, and immediately the sides of the container spread apart so that the opposed, previously engaging central portions 12, 13 (Fig. 5) that respectively lie between the pair of lines of perforations 7 and between the pair of lines of perforations 6 will become one pair of opposed sides of the container, and the portions 14, 15 (Fig. 5) adjoining opposite sides of the crease 1 will become the other two opposed lateral walls of the carton.

The lower ends of the latter two walls 14, 15 will snap inwardly toward each other at points 11 (Fig. 3) so that the sections of lines of perforations 2 between the re-

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spective pairs of lines of perforations 6, 7 will be substantially aligned, and the container will remain in the opened position until the sides 12, 13 are forceably pushed toward each other to cause points 11 to spring outwardly and toward their position in Fig. 2.

When the container is opened as above described, it may be filled with pop corn as readily as though it were a rectangular set up carton. When emptied, it can again be pressed flat so as not to constitute an objectionable obstruction if dropped onto the floor.

It is, of course, obvious from the foregoing description that the container can be set up in one motion and with one hand, just as quickly as a set up carton can be picked up; hence no time is lost by reason of the container being flat when it is picked up.

Upon opening to the position of Figs. 3, 4, 5, the upper edge of the container is in the same plane at all points therearound, whereas when flat, the edges slanted downwardly at sections adjacent to creases 1.

The combination of creases 1 and 5 with the lines of perforations 6, 7, 8, 9 enables the container to have the requisite strength, and to yet be sufficiently flexible at the lines of perforations to readily snap to open position without danger of mutilating or injuring the container.

I claim:

A flat container adapted to be expanded to open position and to remain open when so expanded, said container being formed from a flat, generally fan-shaped blank of cardboard providing a pair of divergently extending free end edges, an outer edge extending between the divergent ends of said free end edges and an inner edge extending between the convergent ends of said free end edges, a pair of spaced first folding creases formed in and extending divergently across said blank from spaced points along said inner edge, the outer portions of said blank disposed between said first creases and said free end edges being folded to one side of the central portion of said blank that is disposed between said first creases with the marginal portions of the blank along said free end edges being securely united in lapping relation, a single flap along said inner edge projecting from said central portion only and folded over and securely united with said outer portions, a straight crease

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formed in said blank and extending between said convergent ends of said first folding creases defining the line of fold of said flap, said inner edge of said blank along said outer portions extending angularly relative to and in outward continuation of said straight crease and being substantially coincidental with said folding crease when said outer portions are folded to one side of said central portion, a bottom wall crease having a central section extending along and parallel with said single crease and having end sections extending along and parallel with said last mentioned edges and further having intermediate sections consisting of said end sections with said central section, said bottom wall crease defining the juncture between the bottom portion of said container and the side walls of the latter, a pair of side wall creases equally spaced from opposite sides of each of said first folding creases extending from said bottom wall crease to said outer edge, and a pair of folding creases extending divergently from each end of said straight crease to one of the ends of said side wall creases, said intermediate sections of said bottom wall crease each being straight and extending slantingly relative to said central section in a direction similar to that of the inner edges of said end portions to facilitate expanding said carton upon applying pressure against the opposite edges of said container, said opposite edges being defined by said first folding creases.

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