Aug. 18, 1942. J. M. HOTHERSALL 2,293,060

CONTAINER

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Fig 1

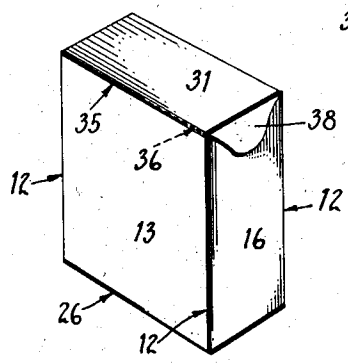


Fig 2

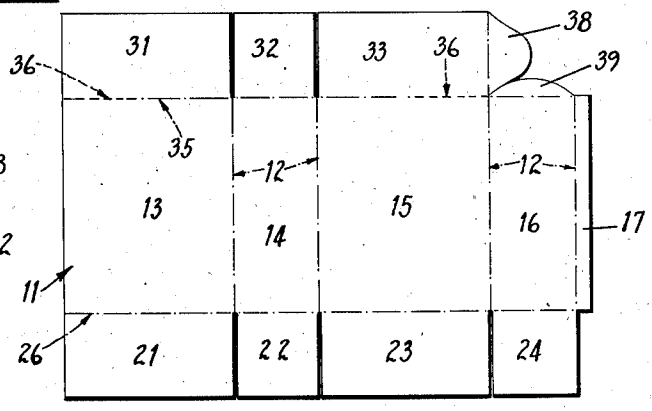


Fig 3

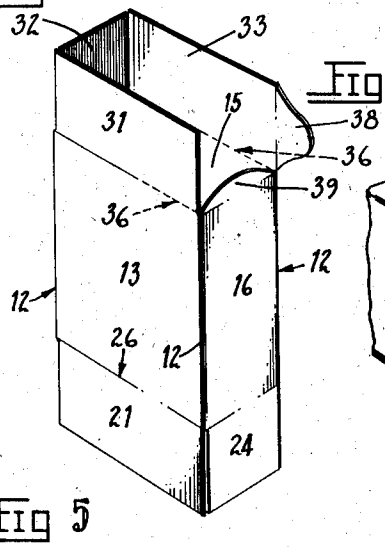


Fig 7

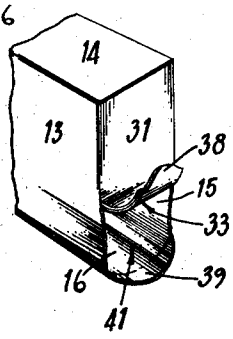


Fig 4

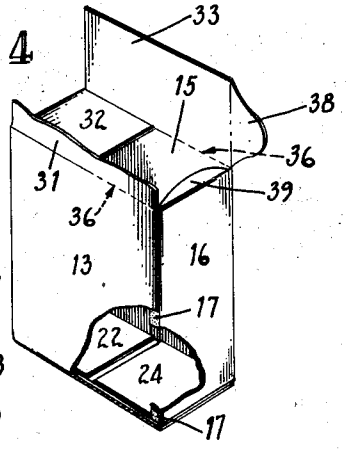


Fig 5

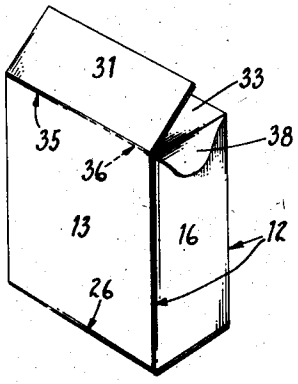
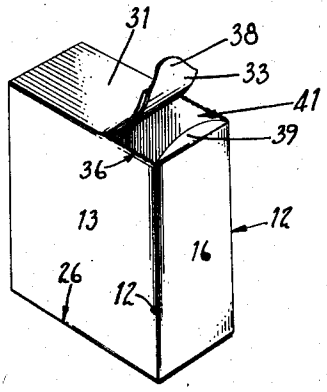


Fig 6



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CONTAINER

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Fig 10

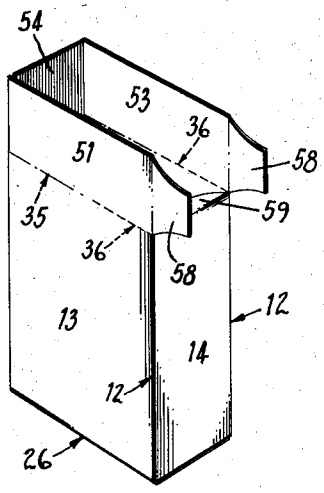


Fig 8

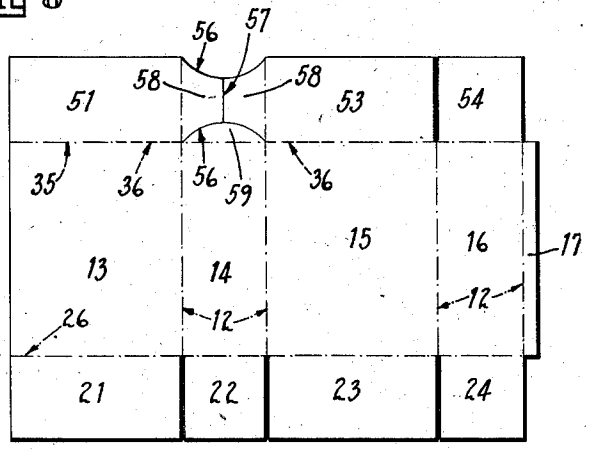


Fig 11

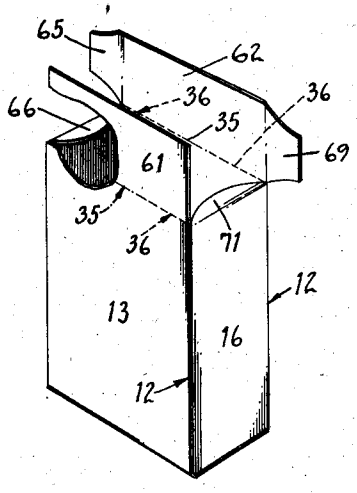
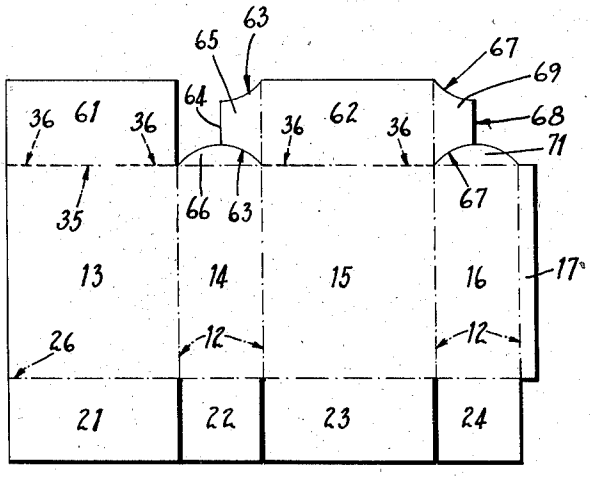


Fig 9



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UNITED STATES PATENT OFFICE

2,293,060

CONTAINER

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Application January 24, 1939, Serial No. 252,665

1 Claim. (Cl. 229—51)

The present invention relates to fibre containers or the like and has particular reference to a one-piece container having a tearing tab for producing a dispenisng opening therein.

An object of the invention is the provision of a one-piece fibre container or the like wherein a portion of the container is scored and is provided with an opening tab extending on the outside of the container where it is readily accessible for tearing loose the scored portion so that a dispensing opening will result when the tab is pulled in the proper direction.

Another object is the provision of such a one-piece fibre container wherein the tab is an integral part of the container, the one-piece blank for the container being shaped so that the tab is included within the regular boundaries of the blank and in such a manner that no extra material is required.

Another object is the provision of a one-piece fibre container of this character wherein the opening tab may be made of single or double thickness as required, or may be made as one tab located at one side of the container or as two tabs, one at each of two sides of the container so that forming of one or more dispensing openings may be made as desired.

Another object is the provision of such a one-piece fibre container wherein the opening tab is arranged to produce in the container an opening which will permit flexing of the adjacent walls into a pouring spout for conveniently dispensing the container contents.

Numerous other objects and advantages of the invention will be apparent as it is better understood from the following description, which, taken in connection with the accompanying drawings, discloses a preferred embodiment thereof.

Referring to the drawings:

Figure 1 is a perspective view of a sealed one-piece fibre container embodying the instant invention;

Fig. 2 is a plan view of a blank from which the container shown in Fig. 1 is made;

Figs. 3, 4 and 5 are perspective views showing the container in different stages of formation, Fig. 4 having parts broken away;

Fig. 6 is a perspective view of the completed container with its opening tab in the position it will assume after being used to tear back a portion of the container top wall to produce a dispensing opening therein;

Fig. 7 is a perspective view of the upper end of such an opened container turned into dispensing position and showing the container walls adjacent the dispensing opening flexed to produce a pouring spout;

Figs. 8 and 9 are plan views respectively of modified forms of container blanks each made from a single piece of fibre material; and

Figs. 10 and 11 are perspective views of the respective modified forms of partially assembled containers made from the blanks shown in Figs. 8 and 9, a part of Fig. 11 being broken away.

As a preferred embodiment of the invention the fibre container of one of the forms illustrated in the drawings is preferably made in one piece from a substantially rectangular fibre blank 11 (Fig. 2). The blank is formed into a rectangular container body by being folded along parallel crease lines 12 which set off flat body side wall portions 13, 14, 15 and 16. A lap seam portion 17 formed on the outer edge of the wall portion 16 is secured, preferably by adhesive, to the wall portion 13 adjacent its outer edge to hold the ends of the folded blank together in body form as best shown in Figs. 3 and 4.

Bottom closure flaps 21, 22, 23 24 (Fig. 2) are formed integrally with the respective body side wall portions 13, 14, 15, 16 along their lower edges to provide a bottom for the container. These flaps may be folded inwardly one after another and along a bottom crease line 26 in the usual overlapping manner and seamed together as by adhesive to produce a container ready to receive its contents. For filling, the container may be formed as shown in Fig. 4 although it will be obvious that the top may be sealed first and the container filled through the bottom.

In a similar manner top closure flaps 31, 32, 33 (Fig. 2) are formed integrally with the respective body side wall portions 13, 14, 15 along their top edges which are defined by a top crease line 35. A portion of this crease line 35 adjacent the top flap 31 and also a portion adjacent the top flap 33 are preferably scored as at 36 (dotted portions of the crease line) to facilitate subsequent opening of the container after filling as will be hereinafter explained.

The outer end of the top flap 33 is provided with a container opening tab 38 which is cut out of the upper right corner of the blank. This tab is so shaped that a small curved lip 39, attached to the upper end of the body side wall portion 16, may also be cut from the stock in the upper right corner of the blank. That portion of the blank in its upper right corner which is cut away from the tab and the lip is the only portion of the blank which is wasted.

After the container is filled with its contents,

if the bottom is the part sealed first, the top flaps are folded down into container closing position. Flap 32 and the lip 39 are first folded into place in the manner best shown in Fig. 4. Flap 33 is then folded down on top of the flap 32 and lip 39 and secured in place with a suitable adhesive as best shown in Fig. 5. Finally the flap 31 is folded down on top of the flap 33 and fastened in place with adhesive thereby completing the steps in producing the finally sealed container illustrated in Fig. 1.

It should be noted that in folding these top flaps into place that the opening tab 38 is adjacent the lip 39 and hangs down adjacent the side wall portion 16 on the outside of the body where it is readily accessible. The scored sections 36 of the crease line 35 are on opposite sides of the tab 38. The finished container therefore has a double thickness throughout its top and half of the area containing the flap 32 is of three thicknesses. The opening tab is connected with or constitutes an integral part of the single inside top flap 33.

To open the container it is only necessary to bend the tab 38 back over the closed top of the container and pull it gently. This pulling action separates the adhesively secured flaps 31, 33, from the lip 39 and also tears them back along the scored sections 36 of the top crease line 35 as best shown in Fig. 6. There is thus produced in the top of the container an opening 41 (Fig. 6) from which the contents of the container may be dispensed. By slightly pinching the sides of the container adjacent the opening, the lip 39 is readily snapped outwardly and shaped into a convenient pouring spout as best shown in Fig. 7.

Fig. 8 illustrates a modified form of a one-piece blank of the same style for producing a container similar to that shown in Fig. 1 but one having a double thickness opening tab instead of one of single thickness. In this blank the parallel crease lines 12 set off the same flat side wall portions 13, 14, 15, 16 and the side seam lap section 17. This modified blank is folded in the same manner to produce the body of the container. The same bottom flaps 21, 22, 23, 24 are also provided on the side wall portions and are folded along the same bottom crease line 26 and secured by adhesive as in the preferred form.

The top flaps differ slightly from those of the preferred form. Flaps 51, 53, 54 are provided on the respective side wall portions 13, 15, 16 at the top crease line 35. Adjacent the side wall portion 14, the blank stock between the flaps 51 53 is cut through along a pair of curved lines 56 and along a straight connecting line 57. These cuts set off a pair of adjacent opening tabs 58 and a lip portion 59. The lip is connected to the side wall portion 14 and one tab is integral with the flap 51 while the other tab is attached to or is integral with the flap 53. The scored sections 36 of the crease line 35 are located adjacent and on opposite sides of the lip 59 as shown in Fig. 8.

When the flaps are folded in and secured with adhesive to close the top of the container, flap 54 and lip 59 are first positioned at right angles to the sides. Then flap 53 is folded down over these and finally flap 51 is secured down on top of flap 53. In this construction a full double top results, but both opening tabs 58 are bent down and are brought together and into alignment at the same edge of the container. This provides a double thickness tab which is disposed on the outside of the container and is located in between the scored sections 36. Opening of the sealed container and forming of the pouring spout is effected in the same manner as in the preferred form.

In the second modification of the invention as exemplified in Figs. 9 and 11, the side walls and the bottom flaps are the same as in the preferred form but again the top flaps are arranged differently. In this form there is provided an opening tab of single thickness adjacent each of two opposite edges of the container top so that one or two openings may be produced. In this blank top flaps 61, 62 are formed integrally with the side wall portions 13, 15 along their top edges as defined by the top crease line 35. There are now provided four scored sections 36 instead of two as in the preferred form, one scored section being disposed adjacent each vertical edge (as viewed in Fig. 9) of the flaps 61, 62.

The stock of the blank between the flaps 61, 62 and adjacent the side wall portion 14 is cut away along curved lines 63, and along a straight line 64 to provide an opening tab 65 along the adjacent edge of the flap 62 and also a lip section 66 which connects with the side wall portion 14. In a similar manner the upper right corner of the blank is cut away along curved lines 67 and a straight line 68 to provide a second opening tab 69 which is integral with the flap 62. A lip 71 connects with the side wall 16.

Hence, when the top flaps of this form of blank are folded in to close the top of the container, the two lips 66, 71 are first bent down as shown in Fig. 11. Flap 62 is then folded down over the lips and secured thereto with a suitable adhesive and finally flap 61 is bent down over the flap 62 and secured in place. This construction provides an opening tab of single thickness adjacent each of the opposite short or end edges of the top closure with scored sections 36 on opposite sides of each tab. A dispensing opening, therefore, may be made at either or both edges of the top as desired.

It is thought that the invention and many of its attendant advantages will be understood from the foregoing description, and it will be apparent that various changes may be made in the form, construction and arrangement of the parts without departing from the spirit and scope of the invention or sacrificing all of its material advantages, the form hereinbefore described being merely a preferred embodiment thereof.

I claim:

A one-piece container comprising a tubular body having side walls, pairs of inner and outer overlying end closure flaps formed integrally with said side walls and inwardly folded along fold lines and sealed together to close the ends of said body, and opening tabs integrally formed on adjacent ends of one pair of oppositely disposed flaps, the fold line of said one pair of flaps being weakened adjacent said tabs, said tabs overlying each other in superimposed position and depending on the outside of the container from an end thereof when the flaps are in sealed relation, thereby providing a multiple thickness tab unit disposed adjacent one end edge of the container for tearing away a portion of said sealed flaps to produce a dispensing opening in said end of the container.

JOHN M. HOTHERSALL.