July 5, 1938. R. E. LOWEY 2,122,480

CARTON

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Fig. 1

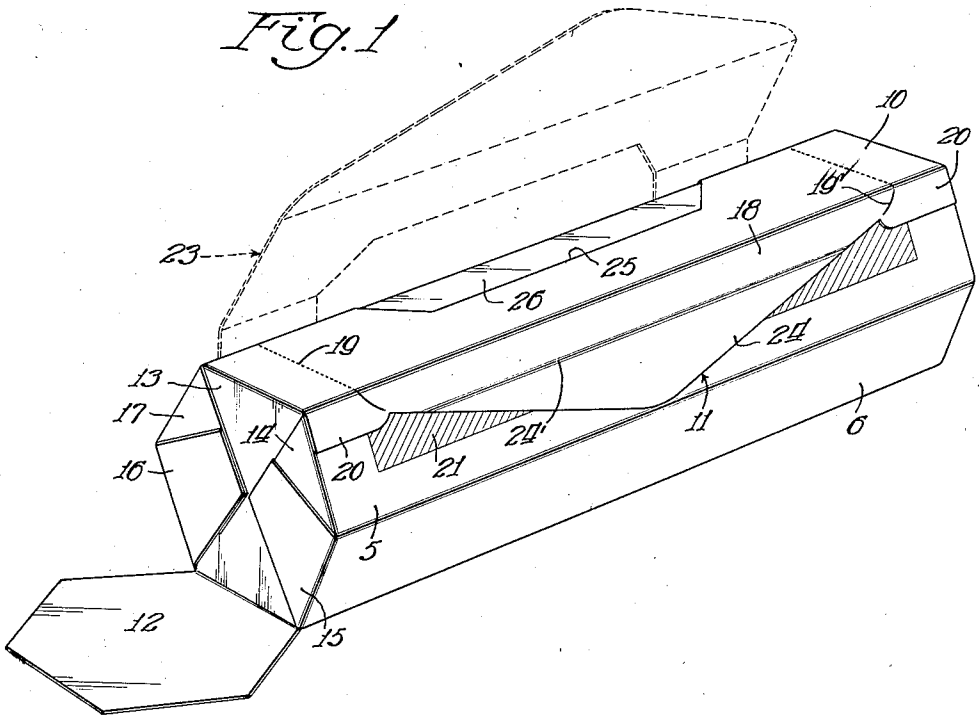
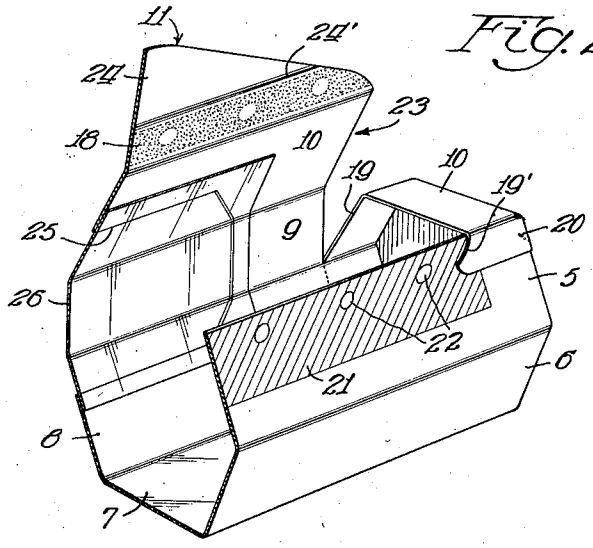


Fig. 2



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Fig. 3

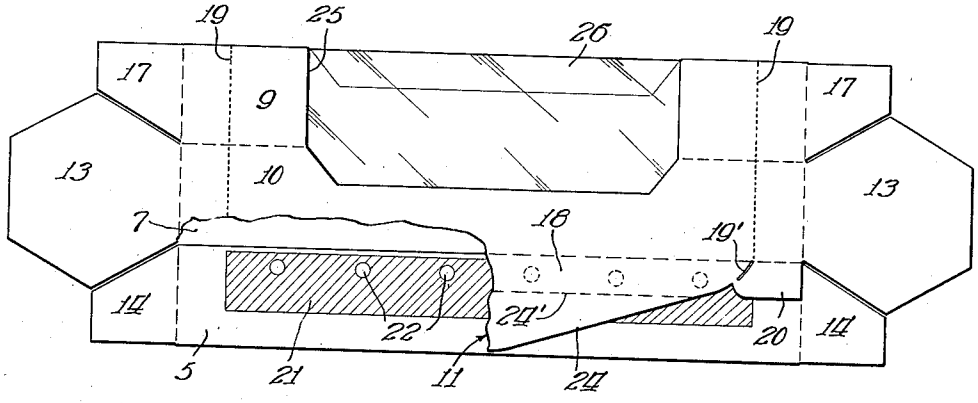
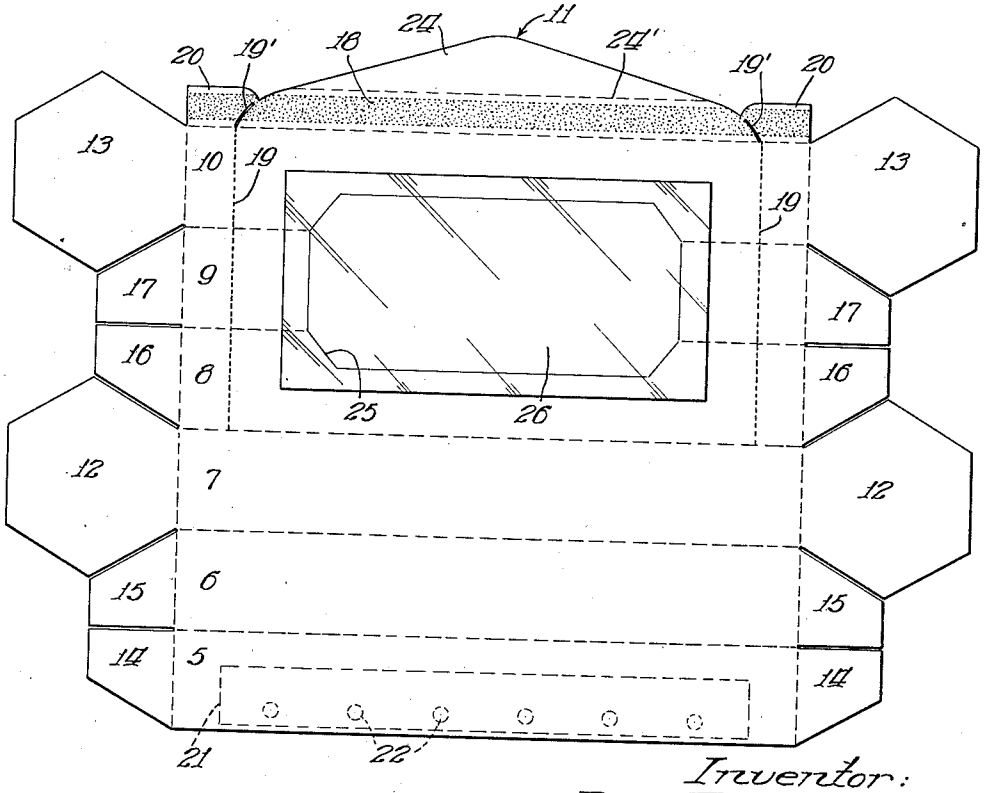


Fig. 4



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UNITED STATES PATENT OFFICE

2,122,480

CARTON

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Application January 29, 1937, Serial No. 122,966

1 Claim. (Cl. 229—33)

The present invention relates to containers and more particularly to folding cartons of the type wherein it is possible to load or charge the container through one end and to remove the contents through a side opening.

One object of the invention is to provide a simple form of folding carton preferably having more than four side walls and having sealable end closures together with a supplemental side closure defined by weakened lines in the side walls, such closure becoming operative by severing the side walls along the weakened lines.

Another object of the invention is to provide a carton of the class described in which the operation of opening the container to dispense its contents will not unduly weaken it.

Other objects will be made apparent as the description proceeds.

In the drawings:

Fig. 1 is a perspective view of a container constructed in accordance with the present invention, showing the container as it appears in set-up condition;

Fig. 2 is a partial view in perspective illustrating the container with its supplemental closure in open position;

Fig. 3 is a view of the container in collapsed condition; and

Fig. 4 is a view of the blank before assembly into tubular form.

The container, as disclosed, is preferably formed from a single blank of readily foldable sheet material which is cut and scored to provide more than four side walls, in the present instance six, indicated at 5, 6, 7, 8, 9 and 10. The side wall 10, located at one extremity of the blank, carries a flap 11 which is adapted to be secured, as by means of adhesive, to a flap 5 at the opposite extremity.

Any suitable means may be employed to close the ends of the carton. In the present instance this closure means comprises flaps 12 and 13 of substantially the same contour as a cross-section of the filled container and being, in the present instance, hexagonal in shape. These flaps are, for convenience, illustrated as located on walls 7 and 10, respectively. Small flaps 14, 15, 16 and 17 are preferably located respectively on walls 5, 6, 8 and 9.

In order to provide means for readily forming a supplemental opening in the side walls of the container, the flap 11 and one or more of the interconnected side walls are provided with weakened lines therein and the mid-portion 18 of the flap 11 is releasably secured to the side wall 5 whereby, upon breaking away the mid-portion of the flap and tearing along the weakened lines, a supplemental opening may be formed. The preferred method for providing a supplemental opening is to form weakened lines 19, 19 across side walls 8, 9 and 10 adjacent each end thereof. These lines may or may not be parallel to the end of the carton but in the present instance are shown as substantially parallel thereto.

As indicated at 19', 19' the weakened lines cross the flap 11 in the form of slits which may, if desired, be held by a relatively small unslitted portion. The end portions 20, 20 of the flap 11 extending from the slits 19' to the ends of the flap are preferably permanently secured to the side wall 5 while, as previously stated, the mid-portion 18 of this flap 11 is preferably secured to the flap 5 in such a manner as to be readily released therefrom. For this purpose the outside surface of the flap 5 is preferably coated with a glue-resistant material, preferably glue-resistant ink, indicated at 21, along its mid-portion except for relatively small spaced areas indicated at 22, 22. The glue-resistant ink applied to the outside of side wall 5 is preferably terminated at points spaced apart slightly more than the length of the central portion 18 of the flap 11 so that the glue-resistant area will not lie in contact to any great extent with the flaps 20, 20. In any event, a substantial portion of the flaps 20, 20 will preferably lie against portions of the side wall 5 which have not been coated with glue-resistant ink. The glue-resistant ink may be applied to the flap 11 if desired. It is also immaterial to which surface the glue is applied as adherence will be prevented by the glue-resistant ink except over areas 22, 22.

In forming the carton into a tube a strip of glue is applied to the inner face of flap 11 extending entirely across sections 18 and 20, 20. Upon thereafter bringing the inner face of the flap 11 in contact with the outer face of flap 5 in the collapsed condition of the carton, adherence will be effected over a substantial portion of the flaps 20, 20 and at the uncoated areas 22, 22. It is thus possible to readily detach the central portion 18 of the flap 11, and as the flap is lifted the weakened lines in the walls 10, 9 and 8, respectively cause such walls to become severed along said lines to form what may be called a supplemental closure, indicated generally at 23.

If desired, the flap 11 may have an extended portion 24 thereon separated from portion 18 by a score line 24' which permits bending of the

portion 24 out of the plane of the portion so that flap 11 may be readily engaged by the fingers to initiate the opening of the supplemental closure.

If desired, a cellophane window may be provided in the supplemental closure. In the present instance, such a window is formed by cutting an opening 25 in flaps 8, 9 and 10 and a sheet of transparent cellulose material 26, such as "Cellophane", is applied to the other side of the walls around the opening to close the same.

In utilizing the carton herein described it will first be formed into a collapsible tube at the box factory by applying a glue strip along the flap 11, as above indicated. See Fig. 3. The collapsed tubes are then sent to user who first closes one end, as by means of gluing together the flaps 12, 13, 14, 15, 16 and 17 at one end of the carton. He will then fill the carton, then glue the remaining flaps at the other end, whereupon the carton is ready for shipment. The container is readily opened, as above indicated, by merely lifting upward the portion 24 of flap 11, releasing the releasable portion 18 thus leaving the permanently secured portions 20, 20 attached to the side wall 5. Further lifting of the flap 11 severs the side walls 10, 9 and 8 to form a supplemental closure through which the contents of the container may be readily removed.

After the supplemental closure has been opened, as indicated, it may be closed by tucking in the portions 24 and 18 of the flap 11 behind the side wall 5 so that this portion of the flap 11 will lie between the contents and the inner face of side wall 5.

It is obvious that the weakened line 19 need not extend across more than one of the side walls in which event the supplemental opening will be only as wide as one side wall.

While the present description sets forth a preferred embodiment of the invention, numerous changes may be made in the construction without departing from the spirit of the invention, and it is therefore desired that the present embodiment be considered in all respects as illustrative and not restrictive, reference being had to the appended claim rather than to the foregoing description to indicate the scope of the invention.

I claim:

A multi-wall container, comprising more than four interconnected wall sections of similar width, one of said sections having a terminal flap joined in overlapped relation to the opposite terminal wall section, said flap and at least two successive adjacent sections joined thereto having an intermediate portion defined from the exterior portions thereof by weakened lines formed in said wall sections and extending across the full width of such sections to provide a supplemental closure, the mid-portion of said terminal flap being releasably secured to the terminal wall section while the extremities of said flap section are permanently secured to the terminal wall section, and integral flaps on all of said wall sections adapted to be secured together to form end closures for the container, said end flaps when secured together serving to support the extremities of those wall sections provided with weakened lines after the closure element has been severed therealong.

ROY E. LOWEY.