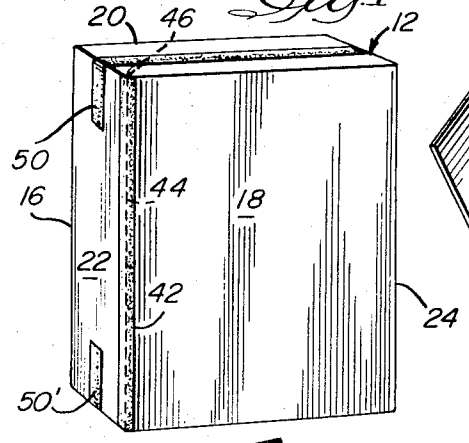
Oct. 3, 1967 J. J. MASON 3,344,976

PAPERBOARD CONTAINER WITH PULL-OUT SIDE

Filed Aug. 30, 1966

Fig. 1



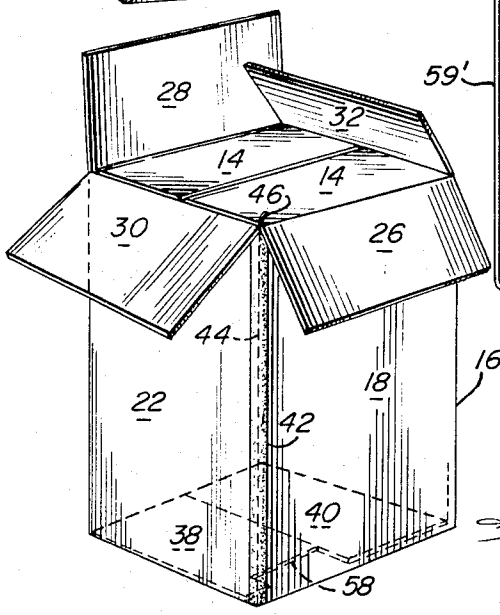


Fig. 2

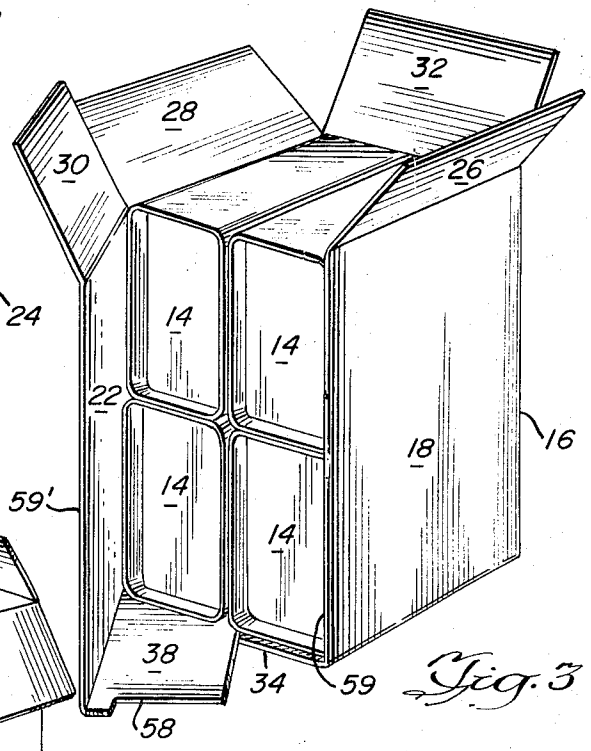


Fig. 3

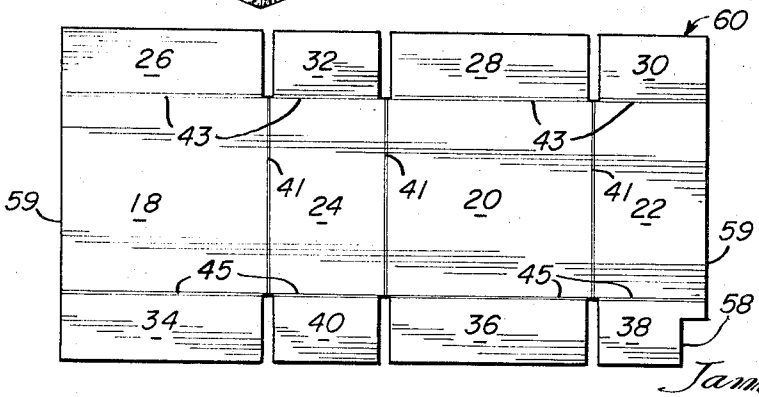


Fig. 4

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PAPERBOARD CONTAINER WITH PULL-OUT SIDE

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Filed Aug. 30, 1966, Ser. No. 576,020
5 Claims. (Cl. 229—51)

This invention relates generally to fibreboard containers of the type in which merchandise is packaged and transported, such as corrugated paperboard cartons, and more particularly, relates to a novel paperboard container provided with a pull-out side for easy removal of such merchandise.

In the packaging and shipment of bulky and large merchandise, for instance, it is common to employ a paperboard container formed as a generally open-ended sleeve of rectangular configuration with an end closure at one end thereof which may be opened to enable removal of said merchandise. Such container has certain disadvantages which become apparent in the unloading of the container under certain conditions of use and where certain packages are stored in the container. For instance, where bulky cans are stacked one upon the other either in a single row or in a plurality of rows and it is desired to remove the cans periodically as needed or otherwise. Generally, only the uppermost one or two packages can be removed without any extended difficulty through the available open end of the container. After the uppermost of such packages have been removed from a top-opening container, for instance, the user must reach deep into the container to remove the remaining packages. Such removal is exceedingly difficult, and in some cases depending upon the type of cans or packages, impossible, without first destroying at least a part of the container to expose a portion of the merchandise which is to be removed. Destroying or damaging the container may be undesirable since it leaves the container in sloppy appearance and possibly unsuitable for further use where it is desired to continue storing the unremoved can in the container.

The necessity to reach down into the container and obtain a grip on the can, for instance, so that it can be removed can result in injury to the knuckles and/or fingers. Also, the packages can be damaged by reason of the difficulty encountered in removing the lower packages and the sides and corners of the paperboard container can be ruptured when the container sides are spread to obtain a grip on the cans or packages.

This kind of difficulty would also be encountered where it is necessary to lift a single large product from the container sleeve without tearing the container. This may be occasioned where it is desired to use the container again.

Accordingly, it is a primary object of the invention to provide a container of the character described which can be assembled from a relatively simple and economical paperboard blank and which is characterized by a construction capable of substantially eliminating the disadvantages enumerated hereinabove as well as others not specified.

It is a primary object of the invention to provide a paperboard container of the character described having a tear strip vertically arranged along a corner thereof which, when torn away, permits the side wall of said container to be pulled outwardly for easy access to the contents of the container in addition to an open end thereof.

Another object of the invention is to provide a paperboard container of the character described in which the pull-out side wall has an end closure flap with a notch to provide clearance for pull-out of said side wall.

Another object of the invention is to provide a container of the character described which can be sealed in a manner permitting the container to be opened readily through a side wall thereof and thereafter sealed again for repeated use, if desired.

The foregoing and other objects of the invention will become apparent from the ensuing disclosure in which a preferred embodiment has been described in detail and illustrated in the accompanying drawing. It is contemplated that minor variations in structural features and arrangement of parts thereof may occur to the skilled artisan without departing from the scope or sacrificing any of the advantages of the invention.

In the drawing:

FIG. 1 is a perspective view of the container embodying the invention fully assembled, loaded and sealed.

FIG. 2 is a perspective view of said container in partially opened condition and showing the bottom flaps thereof in hidden line.

FIG. 3 is a perspective view of said container showing the side thereof in open position with the contents exposed.

FIG. 4 is a plan view of the integral blank from which said container of the invention is assembled.

Referring to the drawing, in FIG. 1, reference character **12** designates generally the container embodying the invention completely assembled and loaded with large or bulky articles or packages. By way of example, the articles may be large, rectangular cans **14**, as seen in FIG. 2, although the container may be used advantageously for packaging of some other single article or a plurality of other articles. Said container **12** is comprised of an open-ended sleeve **16** formed of corrugated board or other fibreboard material having an elongate, rectangular configuration. Sleeve **16** is defined by parallel front and rear walls **18** and **20** respectively and parallel side walls **22** and **24** connected at right angles to said walls **18** and **20**. The designation of the walls of the container **12** as to their orientation is for purposes of description only.

Each of the walls **18**, **20**, **22** and **24** has end closure flaps **26**, **28**, **30** and **32** respectively hinged to the upper ends thereof, and end closure flaps **34**, **36**, **38** and **40** respectively hinged to the lower ends thereof. Each of said flaps are substantially co-extensive with the side wall of the sleeve to which it is connected. The end closure flap arrangement is generally well known, with the exception of flap **38**. Flap **38**, connected to side wall **22**, is formed with a notch **58** cut therefrom for a purpose to be explained below.

Referring to FIG. 4, there is illustrated a single blank **60** which may be die-cut from sheeting of paperboard, either corrugated or otherwise by conventional process. This can be done by a continuous roll method or by a steel-rule punch press arrangement. In any event, it will be apparent that the waste will be that portion of the sheeting which completes the rectangle subtended by the blank. The container **12** is erected by folding the walls **18**, **20**, **22** and **24** along the lines of fold **41** to form a rectangular sleeve. The abutting edges **59** and **59'** of the walls **18** and **22** are secured together by a strip of tear tape **42**. Tear-tape **42** has a string or thin wire **44** extending the length thereof, a portion **46** of which protrudes beyond the extremity of the tape for starting the tear.

To close the top of the resulting sleeve, flaps **30** and **32** on facing walls are folded inwardly along fold lines **43** into the sleeve into an abutting assemblage. Flaps **26** and **28** are then folded along lines **43** into overlapping assemblage with flaps **30** and **32**. Sealing tape **50** is then placed across the line of abutment of flaps **28** and **26** on the exterior of the end enclosure to hold same firmly in place. It will be appreciated that the specific configuration of flaps **26**, **28**, **30** and **32** set forth hereinabove is by way of illustration only and is not meant to limit the scope of the

invention. Any suitable flap arrangement at the upper end of sleeve **16** may be used in conjunction with the invention.

The bottom portion of said container **12** is assembled in a like manner by first folding flaps **38** and **40** along fold lines **45** to an abutting relationship. Flaps **34** and **36** are then folded over said flaps **38** and **40**, and tape **50'** is disposed along the abutting line of flaps **34** and **36** exterior of the container.

After the container **12** has been assembled with the contents thereof packaged therein and sealed it is ready for shipment. To remove the contents of the container, the user will open the upper end of the vertically oriented container as seen in FIG. 2 by breaking the sealing tape **50** in the usual manner. After end closure flaps **26, 28, 30** and **32** have been folded outwardly from the sleeve **16** in the manner shown in FIG. 2, the user can grasp tear-string **44** by its protruding length of string or wire **46**, and tear said string or wire out from said tear-tape by pulling same downwardly, thereby severing said tear-tape so as to separate walls **18** and **22** along their line of abutment defined by edges **59** and **59'**. Other types of tear-tapes may be used for the purpose of effectuating separation of walls **18** and **22**. One other familiar type is that which comprises a strip of reinforced adhesive tape which is designed to be completely removed by stripping same from the surface on which it lies. Wall **22** can then be pivoted outwardly from the sleeve **16** on its fold line **41** to expose the contents of the container for easy removal.

An important aspect of the invention is the location of a notch or cutout portion **58** on the bottom flap **38**. When wall **22** is disposed in closed position with tear-tape **42** in place, notch **58** lies adjacent wall **18**, running in a plane perpendicular to said wall **18**. Notch **58** is thus remote from fold line **41** between walls **20** and **22**. Notch **58** is of such dimension as to provide clearance for flap **38** relative to wall **18** when it is desired to expose the contents of sleeve **16** by pivoting wall **22** along its fold line. The clearance of flap **38** is adjacent tear-tape **42**.

Upon removing any desired quantity of the contents of container **12** through the side wall opening created when wall **22** is in open position, the user can return flap **38** into the sleeve portion below the remaining cans **14** by moving wall **22** into its original closed position. Notch **58** is of sufficient depth and width such that re-assemblage of container **12** is possible even though said container has cans **14** remaining therein.

It is believed that the invention has been sufficiently described to enable the skilled artisan to understand and practice the same. The invention has been distinctly pointed out in the appended claims intended to be broadly and literally construed.

What it is desired to secure by Letters Patent of the United States is:

1. A paperboard container comprising, an open-ended sleeve of generally rectangular configuration including a front wall, a rear wall and a pair of side walls hingedly interconnected to provide the sleeve, a strip of tear-tape joining said front wall and an adjacent side wall along a line of abutment extending the length of the sleeve with said side wall hingedly connected to said rear wall along adjacent longitudinal edges thereof, end enclosure flap means hingedly connected to said walls respectively at one open end of the sleeve, said flap means including a flap member hingedly connected to one of said front and side walls so conjoined by the tear-tape, said flap member having a notch therein adjacent said tear-tape whereby to provide clearance between said flap member and the other wall of the tear-tape joined pair for pivoting said wall having the flap member on its fold line outwardly of said sleeve when said tear-tape is rendered, thereby exposing the contents of said container.

2. A container as described in claim **1** wherein said tear-tape has a string embedded therein and runs the length thereof.

3. A container as described in claim **2** wherein said string extends beyond the extremity of said tear-tape remote from said flap means to allow manual grasping thereof.

4. A container as described in claim **1** wherein said notch is of sufficient depth and width such that said front wall may be returned to its original position by pivoting said wall on its fold line inwardly of said sleeve, thereby re-assembling said container.

5. A container as described in claim **1** in which said end closure flap means comprises a flap member hingedly connected to each wall of the sleeve and generally perpendicular to the sleeve walls in the closed portion of the end closure.

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R. PESHOCK, *Assistant Examiner.*

UNITED STATES PATENT OFFICE

CERTIFICATE OF CORRECTION

Patent No. 3,344,976 October 3, 1967

James J. Mason

It is hereby certified that error appears in the above numbered patent requiring correction and that the said Letters Patent should read as corrected below.

Column 1, line 40, for "can" read -- cans --; column 4, line 2, for "literally" read -- liberally --; line 38, for "portion" read -- position --.

Signed and sealed this 15th day of October 1968.

(SEAL)
Attest:

Edward M. Fletcher, Jr.
Attesting Officer

EDWARD J. BRENNER
Commissioner of Patents