July 18, 1939. P. M. RESSINGER 2,166,265

FOLDING PACKAGING RECEPTACLE

Filed March 25, 1936

Fig. 1

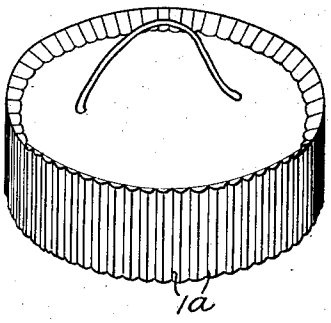


Fig. 2

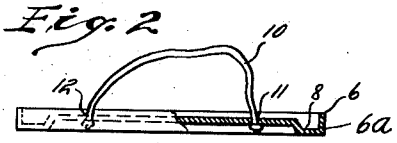


Fig. 3

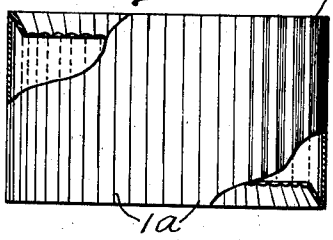


Fig. 4

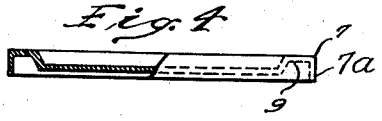


Fig. 5

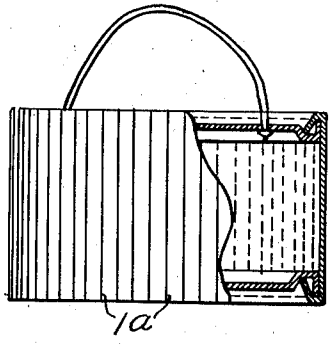
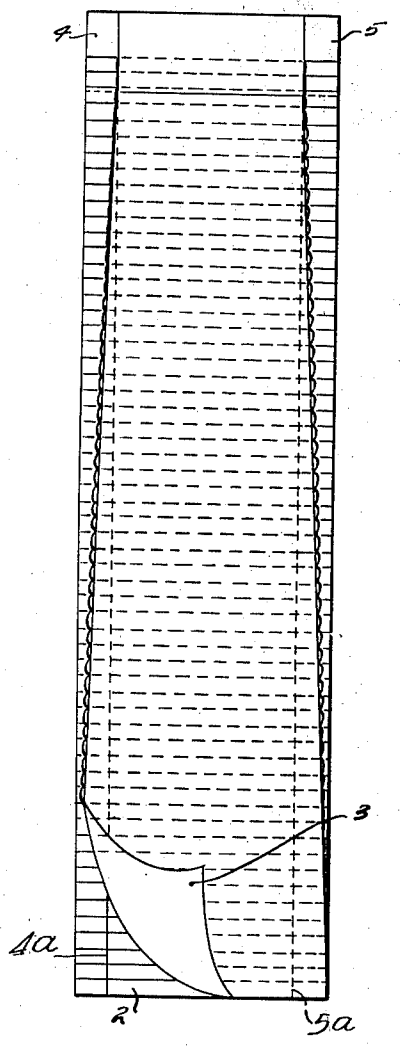


Fig. 6



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FOLDING PACKAGING RECEPTACLE

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8 Claims. (Cl. 229—5.5)

My invention relates to storage receptacles and has special reference to that class of receptacles which are made of paper or the like and are adapted to be used but once and then disposed of.

It has for its object the provision of an inexpensive yet substantial folding receptacle, the disassociated parts of which may be conveniently stored in a limited space.

The construction of the device is fully disclosed in the accompanying drawing in which:

Figure 1 is a perspective view of the assembled container;

Fig. 2 is a fragmentary cross sectional view of the top closure member of the container;

Fig. 3 is a side fragmentary view partially in perspective and partially in section of the side wall of the container;

Fig. 4 is a fragmentary cross sectional view of the bottom closure member of said container;

Fig. 5 is a fragmentary cross sectional view of the completely assembled container; and

Fig. 6 is a plan view of the side wall of the container before the assembly thereof.

The container consists of a barrel 1 which is formed from a strip of corrugated paper 2 having an interlining 3 of plain fibrous paper. The corrugations may be formed or may include separating scores 1*a*.

The longitudinal extended edges of the element are bent inwardly to form flanges 4 and 5 and because of the corrugations or scores the said flanges may be readily bent outwardly as to receive the top and bottom closure members 6 and 7 respectively. The bending of the flanges is assisted by the circumferential scores 4*a*, 5*a*, which define the flanges and separate them from the body of the container.

The top and bottom closure members 6 and 7 are provided with annular grooves 8 and 9 and in the forming of said grooves the periphery of the said closure members are bent outwardly at a 90° angle to a point where said edges extend above the plane of said closure member. The closures 6 and 7 are each provided with a circumferential generally cylindrical flange 6*a* and 7*a*.

The top closure member is provided with a flexible handle 10 formed of string or like material, the opposed ends of which are inserted through perforations 11 and 12 in the cover and upon the said ends being knotted forms an inexpensive and convenient carrying medium.

For the reason that corrugated paper is the material used for the side wall, the formed element may be readily folded and thus easily stored in a small space and as the top and bottom closure members are formed of the same die and are somewhat flexible they may be nested for convenient storage.

The assembly of the container is as follows:

The element 1 is positioned as to assume a circular form with the top flange 4 straightened out. The bottom closure member is forced through the top open end of element 1, the groove side of said closure member being positioned downwardly. Said closure member is then forced to the bottom of said element 1 until the peripheral edge of the said closure member engages the bottom of the creased flange 5. In this position the inturned edge of the flange 5 engages in the groove 9 thus forming a lock-joint. The cover member disclosed in Fig. 2 is then inserted in the top open end of element 1 with the groove 8 faced upwardly. Flange 4 is then folded inwardly as to engage in the groove 8 and upon lifting the cover slightly the said cover will be effectually locked and to disengage it, it is necessary to force the cover down, fold the flange 4 outwardly of the grooves, which action will permit ready removal of said cover.

As can readily be seen, the weight of the contents of the assembled carton resting on the bottom of said carton only serves to lock the said bottom more tightly in engagement with the flanges of element 1 and lifting of the assembled container by the medium of the handle 10 only serves to lock the top cover member more tightly in engagement with the flange 4 thus though the construction of the container is paper the details of the construction are such as to give it the strength of a more sturdy material and due to the fact that the circular element forming the side walls of the said container are made of corrugated paper the flanges 4 and 5 may be readily bent inwardly and outwardly from engagement with and disengagement from the grooves in the top and bottom closure members without the necessity of serrating the flanges as disclosed in the patent to W. L. Wright, #1,808,975, of June 9, 1931. Furthermore, the use of corrugated paper in the construction of the side walls permits the folding of the element 1 to form a compact flat unit without the creasing that would necessarily attend the folding of a unit such as that disclosed in the above mentioned patent.

In my device I find it advantageous to employ scored or corrugated fiber or paper which may include an inner plain lining 3 which, however, is not absolutely necessary and may be omitted if desired. The body portion of the container is

separated from the end locking flanges by the scores 4a and 5a which make it easy to fold and unfold the flanges. The employment of corrugated or longitudinally scored material makes it easy to close the flanges into locking position or to withdraw them into open position. The corrugations or the relative flexing of adjacent score-separated portions also assist in locking and reinforcing the flanges and are effective to prevent the flanges from becoming unintentionally unfolded when the container is lifted. I can carry a very substantial weight in one of these containers and the flanges in practice do not become unintentionally released. The closure members are freely movable in relation to the inner face of the container wall.

There is no locking or interlocking feature which prevents a free disassembly. This is advantageous since it permits a frequent re-using of the unit. A slight downward pressure on the closure of the upper end of the unit will free the outer edge of the upper flange. The flange, being corrugated or broken into relatively flexing units, can then readily be bent into opposition and the closure removed. The closure can then be put back in place and the flange rebent into proper position. Thereafter, any pull exerted on the upper closure as by the handle 10 will find the unit as firmly locked as ever.

The cylindrical flanges 6a and 7a provide a substantial frictional bearing area which prevents unintended movement of the closures in relation to the container but is insufficient to prevent a desired or intended movement. In use, the free edges of the flanges 6a and 7a engage the point of junction between the flanges 4 and 5 and the body portion of the device as shown for example in Figure 5.

It will be understood that whereas I have described and shown a practical and operative device, nevertheless many changes may be made in the size, shape, number and disposition of parts. I therefore wish my invention and drawing to be taken as in a broad sense illustrative rather than as limiting me to my specific showing. It will also be realized that whereas I use the term "corrugated", I wish it to be interpreted as broad enough to cover any longitudinal scoring or guiding means employed in connection with the paper in such fashion that the flanges 4 and 5 are readily foldable and unfoldable.

Having thus fully described my invention what I claim is—

1. In a container, end closures having circumferential grooves near the periphery thereof, a side wall member formed of corrugated fibrous material, the edges of said side wall member being inwardly bent to form flanges, the free inner edges of said flanges being seated in the grooves in said closure members, said closure members being freely slidable inwardly along the inner face of said side wall member when the parts are in normal closed position.

2. In a container, an open-ended container body of corrugated fibrous material, said body having at each end an inwardly inclined circumferential flange, and individual closure members for the ends of said body, said closure members being opposed respectively to the free edges of such flanges, the corrugations of said flanges being adapted to reinforce said flanges and to maintain them in inwardly turned position against said closures.

3. In a container, an open-ended container body of corrugated fibrous material, said body having at each end an inwardly inclined circumferential flange, the outer edge of each flange being spaced inwardly from the adjacent inner face of the body, and individual closure members for each end of the body, said closure members having circumferential channels opposed to and adapted to receive the edges of said flanges.

4. In a container, an open-ended container body of corrugated fibrous material, said body having at each end an inwardly inclined circumferential flange, the outer edge of each flange being spaced inwardly from the adjacent inner face of the body, individual closure members for each end of the body, said closure members having circumferential channels opposed to and adapted to receive the edges of said flanges, each such closure including a circumferential flange abutting against the opposed inner surface of the body, and a circumferential channel surrounded by said flange, the inner edge of the body flange penetrating and seating in said channel.

5. In a container, a side wall member formed of corrugated fibrous material, an end closure, the edges of the side wall member being inwardly bent to form a circumferential downwardly and inwardly inclined flange, and means for holding said closure member against the free edge of said flange, including a handle secured to the closure itself and adapted thereby to cause the weight of the entire package to hold the edge of said flange against the opposed face of said closure.

6. In a container, an open-ended container body including a sheet of plain fibrous material and an exterior sheet of corrugated material secured to the outer surface thereof, said corrugated material being exteriorly circumferentially scored adjacent an end of said container whereby to permit ready inward bending of the composite element formed by the plain fibrous material and the corrugated material, the end beyond said score being inwardly turned, and a closure member for the end of said container, said closure member conforming to and being in frictional contact with the inner face of the container and being slidable along the inner face of said container and abutting against the opposed edge of the inwardly turned end portion of the container wall.

7. In a container, an open-ended container body including a sheet of plain fibrous material and an exterior sheet of corrugated material secured to the outer surface thereof, said corrugated material being exteriorly circumferentially scored adjacent each end of said container, whereby to permit ready inward bending of the composite element formed by the plain fibrous material and the corrugated material, the ends beyond said scores being inwardly turned, and closure members for the ends of said container, said closure members conforming to and being in frictional contact with the inner face of the container and being slidable along the inner face of the container, and abutting against the opposed edges of the inwardly turned end portions of the container wall.

8. In a container, an open-ended container body including a sheet of plain fibrous material and an exterior sheet of corrugated material secured to the outer surface thereof, said corrugated material being exteriorly circumferentially scored adjacent each end of said container, whereby to permit ready inward bending of the composite element formed by the plain fibrous material and the corrugated material, the ends beyond said scores being inwardly turned, closure

members for the ends of said container, said closure members conforming to and being in frictional contact with the inner face of the container and being slidable along the inner face of the container, and abutting against the opposed edges of the inwardly turned end portions of the container wall, and handle means secured to the upper of said closures whereby the container, when filled and closed, can be lifted, the contents of the container being adapted to hold the bottom closure in position against the opposed upper edge of the inwardly turned bottom end portion of the container wall, the weight of the container as a whole being adapted to hold the top closure firmly against the lower edge of the upper inwardly turned end portion of the container wall, whereby any tendency of the inwardly turned upper edge of the container to move into open position is prevented.

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