Nov. 21, 1933. R. P. WARE 1,936,417

CONTAINER

Filed Feb. 1, 1932

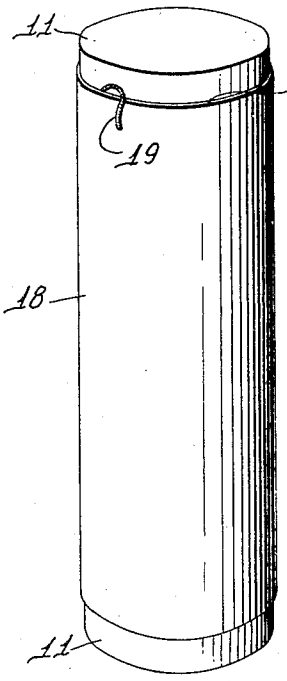

Fig. 1.

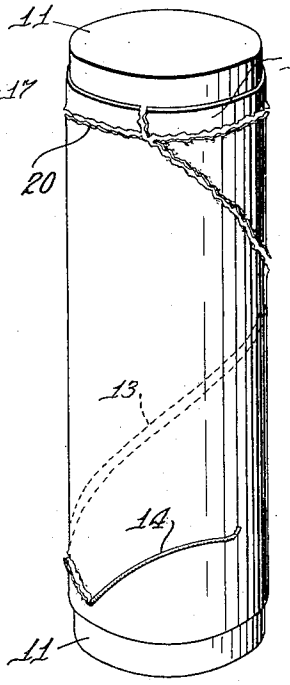

Fig. 2.

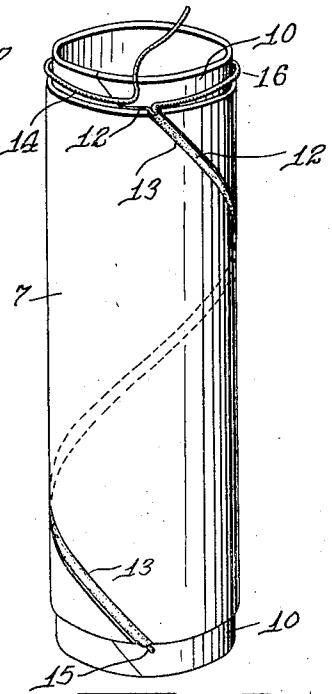

Fig. 3.

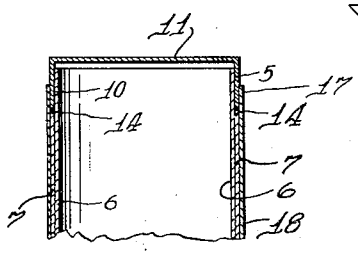

Fig. 4.

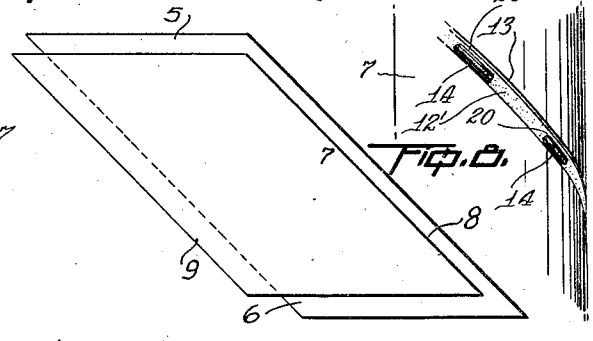

Fig. 6.

Fig. 8.

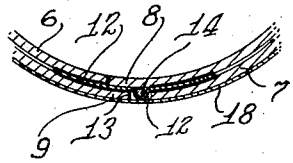

Fig. 5.

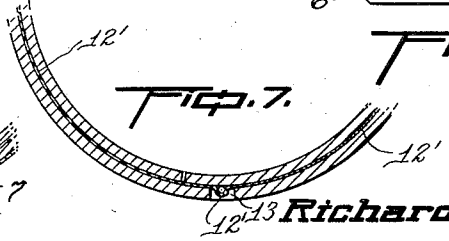

Fig. 7.

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Patented Nov. 21, 1933 1,936,417

UNITED STATES PATENT OFFICE

1,936,417

CONTAINER

Richard P. Ware, Detroit, Mich., assignor to Package Improvement Co., Inc., Detroit, Mich., a corporation of Michigan

Application February 1, 1932. Serial No. 590,077

11 Claims. (Cl. 229—51)

My invention relates to quick opening containers or canisters and more particularly to that type of container which is formed from cardboard or other analogous material of any desired form.

An object of the present invention is to provide a container or canister of this character which may be quickly and readily opened from end to end without mutilating or distorting its contents.

The invention further provides a container which is formed from spirally wound sheets of semi-flexible material having a ripping or severing element associated therewith to tear or rip the material spirally from end to end so that the sheet of semi-flexible material can be fully opened and extended in a substantially flattened outstretched condition to readily empty the contents.

The invention further provides a receptacle of this character wherein the spiral joint between the edges of the blank from which the receptacle is formed constitutes a pocket or guide for accommodating the flexible ripping element and which guides the latter to form the tearing or ripping operation when the ripping element is placed under strain.

With the preceding and other advantages in mind the invention consists in the novel combination of elements, constructions, arrangements of parts and operations to be hereinafter specifically referred to, claimed and illustrated in the accompanying drawing, in which

Figure 1 is a perspective of a container or receptacle constructed in accordance with my invention;

Fig. 2 is a similar view showing the container partially ripped open;

Fig. 3 is a perspective prior to assembly of the end caps and exterior label;

Fig. 4 is a fragmentary longitudinal section;

Fig. 5 is a fragmentary transverse section of the same showing interposed tearing strip with exterior label or wrapper;

Fig. 6 is a perspective of the blanks from which the two ply container is formed;

Fig. 7 is a fragmentary transverse section of a container without exterior label or wrapper and showing interposed sheet of paper, and

Fig. 8 is a detail showing one method of exposing the tearing cord.

Referring to the invention in detail a blank of semi-flexible material such as cardboard and composed of any number of laminations or plies 6 and 7 is provided. The longitudinal edges of the blank extend diagonally while its transverse edges are parallel and are secured together with one of the longitudinal edges 8 projecting a considerable distance beyond the adjacent longitudinal edge of the ply 7 so that when the blank is wound into tubular formation the longitudinal edge 8 will be overlapped by the projecting longitudinal edge 9 of the lamination 7. Similarly the ends 5 and 6 of the ply 6 project beyond the ends of the ply 7 so that the completed receptacle will have reduced ends 10 for the reception of metallic caps 11.

For the purpose of severing the container along the spiral meeting edge of the blank a strip of flexible material 12 is secured between the plies and bridges the spiral groove 13 defined by the adjacent spiral edges of the blank.

Extending along the projecting edge 8 of the ply 6 and in contact with the strip 12 at that point lying within the spiral groove 13 are flexible ripping elements 14. One end of the ripping element is anchored to one of the reduced ends 10 as indicated at 15 while the opposite end of the flexible element is extended around the other reduced end 10 to completely encircle the same as indicated at 16.

A paper label or wrapper 18 encircles the formed container and extends to and overlies the side walls of the caps 11 as at 17. The label is glued or otherwise secured to the caps and the terminal 19 of the ripping element is free and extends upon the exterior of the container. It will be seen that upon grasping the terminal 19 and placing the latter under strain the flexible ripping elements will first tear the label circumferentially at 20 to detach the adjacent cap 11. As the flexible element is further pulled it follows the spiral groove or pocket, severing the tearing strip and completely separates the blank from end to end. Thus, after the blank has been severed it may be stretched in a substantially flattened-out condition so that the contents of the receptacle may be removed without distortion or mutilation.

If the label or wrapper 18 is desired to be dispensed with the label may be lithographed or printed directly upon the outside ply of the container as shown in Fig. 7 and the strip 12 may extend clear around the container as an intermediate ply 12' instead of just spanning the groove 13. The strip 12 may have openings 20 cut therein to expose the cord 14 in the groove 13 for easy access in ripping open the strip as shown in Fig. 8.

What is claimed is: —

1. In rip-cord construction, an inner wall ply,

an outer wall ply, of a material having a great resistance to being severed by a rip cord, the outer ply having an elongated gap therein, a strip of a material having a slight resistance to being severed by a rip cord, the strip being between the plies and bridging the gap in the outer ply, and a rip cord aligned with the gap and disposed between the strip and the inner wall ply.

2. In rip cord construction, an inner wall ply, an outer wall ply, having an elongated gap therein, a strip of severable material between the plies and bridging the gap, and a rip cord aligned with the gap and disposed between the strip and the inner wall ply, the outer wall ply having a resistance to being severed by a rip cord considerably greater than that of the strip.

3. In a rip cord construction, an inner wall ply, an outer wall ply, having an elongated gap therein, a strip of severable material between the plies and bridging the gap, a rip cord aligned with the gap and disposed between the strip and the inner wall ply, and means for pulling the rip cord outwardly in a manner to sever the strip.

4. In container construction, a not readily severable wall having a pre-severed line, a strip of readily severable material covering the pre-severed line and disposed inwardly of the container with respect to the wall and joining the wall parts on opposite sides of the line, and ripping means inwardly of the strip for severing the strip along the line.

5. In container construction, a not readily severable wall having a pre-severed line, a strip of readily severable material covering the pre-severed line and disposed inwardly of the container with respect to the wall and joining the wall parts on opposite sides of the line, and ripping means inwardly of the strip for severing the strip along the line, and a second wall portion between which and the first wall, the severable strip is disposed.

6. In container construction, a not readily severable wall having a pre-severed line, a strip of readily severable material covering the pre-severed line and disposed inwardly of the container with respect to the wall and joining the wall parts on opposite sides of the line, and ripping means inwardly of the strip for severing the strip along the line, and a second wall portion between which and the first wall, the severable strip is disposed, the second wall portion also being not readily severable and also having a pre-severed line covered by the strip.

7. In container construction, a not readily severable wall having a pre-severed line, a strip of readily severable material covering the pre-severed line and disposed inwardly of the container with respect to the wall and joining the wall parts on opposite sides of the line, and ripping means inwardly of the strip for severing the strip along the line, and a second wall portion between which and the first wall, the severable strip is disposed, the second wall portion also being not readily severable and also having a pre-severed line covered by the strip, the latter joining the wall portion parts on opposite sides of the line.

8. In container construction, inner and outer wall plies, the outer of which has a gap, a strip of severable material between the plies and bridging the gap, a rip cord aligned with the gap and disposed between the strip and the inner wall ply, and means for pulling the rip cord outwardly in a manner to sever the strip along the gap.

9. In rip cord construction, an inner wall ply, an outer wall ply, of a material having a great resistance to being severed by a rip cord, the outer ply having an elongated gap therein, a strip of a material having a slight resistance to being severed by a rip cord, the strip being between the plies and bridging the gap in the outer ply, a rip cord aligned with the gap and disposed between the strip and the inner wall ply, and means for pulling the rip cord outwardly in a manner to sever the strip along the gap.

10. In rip cord construction, an inner wall ply, an outer wall ply, having an elongated gap therein, a strip of severable material between the plies and bridging the gap, and a rip cord aligned with the gap and disposed between the strip and the inner wall ply, the outer wall ply having a resistance to being severed by a rip cord considerably greater than that of the strip, and means for pulling the rip cord outwardly in a manner to sever the strip along the gap.

11. In rip-cord construction, a non-severable inner wall ply, a non-severable outer wall ply having an elongated gap therein, a strip of severable material between the plies and bridging the gap, and a rip cord aligned with the gap and disposed between the strip and the inner wall ply.

RICHARD P. WARE.