Dec. 26, 1939. F. G. HENRY 2,184,799

CONTAINER

Filed March 23, 1937

Fig. 1.

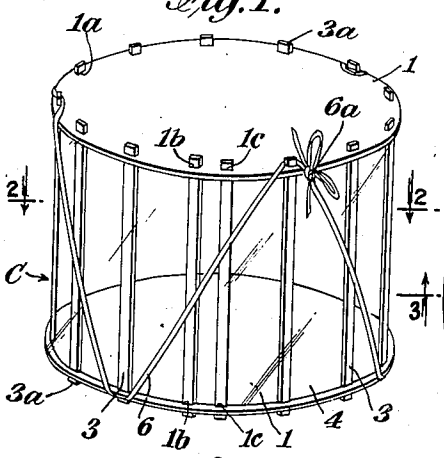


Fig. 2.

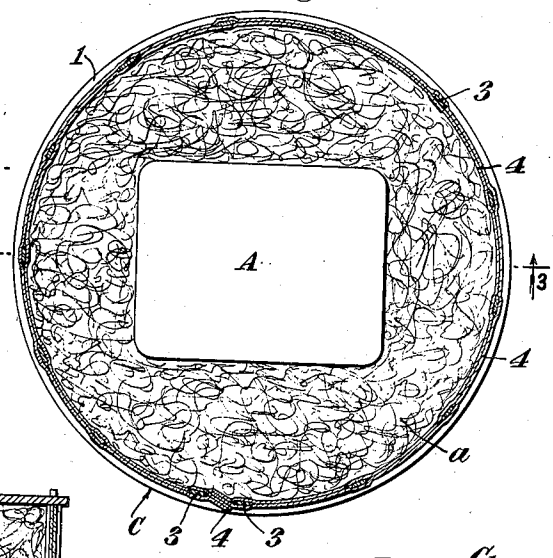


Fig. 3.

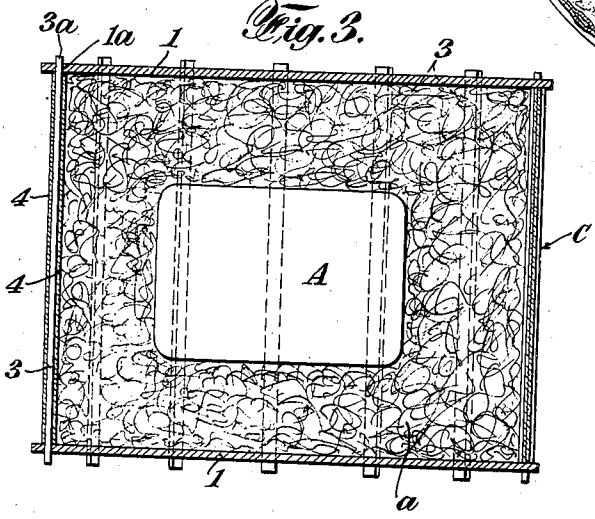


Fig. 4.

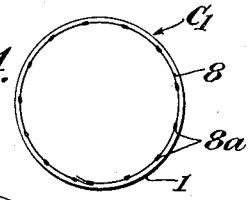


Fig. 5.

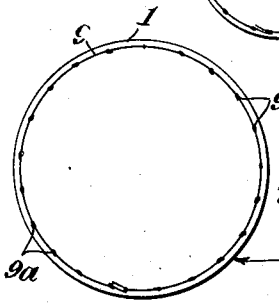


Fig. 6.



Fig. 8.

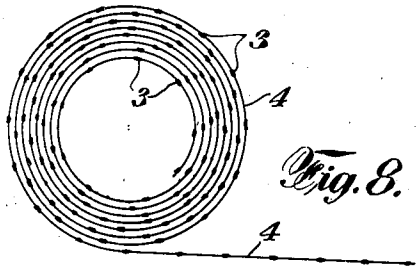
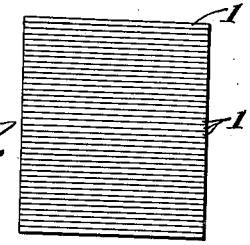


Fig. 7.



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CONTAINER

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3 Claims. (Cl. 229—3.5)

My invention relates to a novel container, box or package hereinafter generically referred to as a "container". My invention has further reference to novel structural parts of a container and to a novel method of assembling such a container.

In accordance with my invention, a container of a desired size is constructed or fabricated readily and with ease from preformed container parts of novel character.

Various other objects, advantages and features of my invention will become apparent from the following detailed description.

My invention resides in the container, novel container parts, the method of constructing and assembling a container, features and arrangements of the character hereinafter described and claimed.

For an understanding of my invention and for an illustration of one of the many forms thereof, reference is to be had to the accompanying drawing, in which:

Figure 1 is a perspective view of a novel container as constructed in accordance with my invention;

Fig. 2 is a horizontal sectional view taken on the line 2—2 of Fig. 1 looking in the direction of the arrows;

Fig. 3 is a vertical sectional view taken on the line 3—3 of Fig. 2 looking in the direction of the arrows;

Figs. 4 and 5 are diagrammatic views illustrating an important characteristic of the invention;

Fig. 6 is an elevational view diagrammatically illustrating a stack of container parts;

Fig. 7 is an elevational view illustrative of another stack of container parts; and

Fig. 8 is an elevational view illustrating a method of supplying container parts alternative to the arrangement of Fig. 6.

Referring to Figs. 1, 2 and 3, the container C of my invention comprises a pair of walls or sections 1 which may be considered as the container top and bottom walls, these walls being maintained in suitable spaced relation by supporting rods or struts 3 which, in the manner hereinafter described, have associated therewith one or more sheets or layers 4 of Cellophane, fabric, paper, or equivalent, this sheet assembly forming the container side wall structure as hereinafter more particularly described. In accordance with the invention, the walls 1 are formed from any suitable material such, for example, as cardboard, metal, wood, composition material, or equivalent, while the supporting rods 3, preferably, are formed from wood, metal, or equivalent relatively stiff material.

As clearly appears from a consideration of Figs. 1 and 3, the supporting rods 3 are disposed between facing sheets of Cellophane which are in engagement with each other. Due to the inherent adhesive affinity of Cellophane sheets for each other when they are in engagement, it results, therefore, that the two Cellophane sheets 4 are adhesively united in a tenacious manner and that they tend to maintain the supporting rods 3 substantially in spaced parallel relation with respect to each other as shown. As clearly appears from a consideration of Fig. 3, the length of the supporting rods 3 should be somewhat greater than the width of the Cellophane sheets 4 and, therefore, due to the symmetrical placing of said supporting rods and sheets with respect to each other, it results that each supporting rod 3 has a free end 3a projecting beyond each adjacent edge of said Cellophane sheets.

In the form of the invention shown, although not necessarily, each of the container walls 1 is of generally circular configuration and, just within the periphery thereof, each wall is provided with a plurality of passages 1a which extend entirely therethrough, these passages 1a being spaced the same as the spacing of the aforesaid supporting rods 3 within the Cellophane sheets 4, and the configuration of each passage 1a being such that the end 3a of any supporting rod 3 may be snugly received therein.

In accordance with the invention, the spacing of the passages 1a of the walls 1 should be as described immediately above with the exception of two adjacent passages 1b and 1c which are disposed relatively close to each other as shown in Fig. 1.

In order to form a container C, there are selected a pair of duplicate walls 1 and a sheet assembly of proper length, such assembly comprising the supporting rods 3 and the sheets 4, one wall 1 being suitably held in fixed position while the ends 3a of the series of supporting rods 3 are inserted into the respective passages 1a of said wall 1. By this action, there is produced a partially completed container structure which may be said to comprise a bottom wall 1 and an upstanding side wall formed from the series of supporting rods 3 and the sheets 4 associated therewith.

At this time, one or more objects or articles A may be disposed interiorly of said partially completed container and, if desired, said article A may be supported or nested in a mass a of cotton,

cut paper, or other suitable packing material. Thereupon, the other wall of the aforesaid pair of duplicate walls 1, after the respective sets of passages 1b, 1c have been alined, is associated with the partially completed container by insertion of the upper ends 3a of said series of supporting rods 3 into the respective passages 1a of said other wall 1. By the operation last noted, the container C is completed or substantially so. As a last step, if desired, a cord, tape or the like 6 may be looped in zig-zag fashion, Fig. 1, around the upper and lower ends 3a of some of the supporting rods 3, said tape 6 then being tied tautly as indicated at 6a.

As clearly appears from a consideration of Figs. 1 and 2, the provision of the closely spaced passages 1b, 1c in the respective walls 1 is of distinct importance because permitting the supporting rods 3 at opposite ends of the aforesaid sheet assembly section to be disposed relatively close to each other whereby opposite ends of the sheets 4 may be lapped to thereby produce a circumferentially complete side wall arrangement for the container.

As shown and as will readily be understood, the completed container C with the article A and packing a disposed interiorly thereof is of ornamental appearance, this being true particularly because contrasting or pleasing colors may be used as regards the packing a, the Cellophane sheets 4 and the cord 6. At the same time, the container C is a self-supporting structure of ample rigidity for the intended purpose. In this connection, the tight fit which exists between the walls 1 at their passages 1a and the supporting rods 3 is of distinct importance. Further as regards rigidity of the container, the cord 6 serves a useful purpose as will be obviously understood.

When it becomes desirable to open the container, the cord 6 may readily be loosened whereupon one of the walls 1 may be removed from the supporting rods 3 to thereby gain access to that article A which is disposed interiorly of said container.

Referring to Figs. 4 and 5, two different containers C1 and C2 are illustrated in a diagrammatic manner, the container C1 being of relatively small diameter and the container C2 being of relatively larger diameter. Despite this diametrical difference, the space between adjacent supporting rods 8a of the sheet assembly 8, Fig. 4, may be the same as the space between adjacent supporting rods 9a of the sheet assembly 9, Fig. 5. Therefore, the sheet assembly sections forming the side walls of the respective containers C1 and C2 may be of the same construction for both containers, the sole difference residing in the different lengths of said sheet assembly sections. This is an advantageous feature of the invention because simplifying the construction of containers of different sizes.

Referring to Fig. 6, I have illustrated an application of the invention involving a plurality or stack of the sheet assembly sections all of which, preferably, have the same length. Thus, for example, said sheet assembly sections last named are of such length that any one of them will form a properly closed side wall for a selected pair of top and bottom walls of the proper diameter. In this connection, it will be understood that the individual sheet assembly sections of said stack of sections are cut to a predetermined length so as to be utilizable as just described.

In Fig. 8, I have illustrated a roll formed from a continuous length of Cellophane sheets, or equivalent, suitably secured to the transverse supporting rods 3. This roll may be mounted upon a suitable rotatable support, not shown, and then, as required, any desired length of material may be unrolled, severed, and then utilized in the general manner hereinbefore described to form a side wall for a pair of the walls 1.

In Fig. 7, I have illustrated a stack of walls 1 which may be positioned conveniently to a packaging operator so that they may be removed in succession to form containers C of the character herein described. Obviously, if desired, a plurality of stacks may be provided, the blanks or walls of the different respective stacks having different diameters as desired.

It will be understood that the hereinbefore described sheets 4, if desired, may be formed from any suitable material other than Cellophane. Further, when desired, said sheets may be secured together by glue or adhesive of any suitable type in order to form a sheet assembly of the character described. Still further, under some circumstances, the sheet assembly may comprise only a single sheet which, in suitable manner, is secured to the supporting rods 3.

It shall be understood that my invention is not to be limited to a container of any particular configuration or of any particular dimensions. Thus, in lieu of a cylindrical container having circular bottom and top walls as shown, it is to be understood that the container may be formed from non-circular walls of such configuration as may be desired. Further, it is to be understood that the dimensions of the circular or non-circular bottom and top container walls may be such as is suitable and desirable.

The advantages of my invention are numerous and of importance as will be understood in view of the foregoing description. A particularly important advantage resides in the fact that the structural parts for my novel container may be stored in a packaging room or other suitable location while they are maintained relatively flat or non-assembled as shown in Figs. 6 and 7, for example, or even while the sheet assembly is in roll formation as shown in Fig. 8. In this condition, the structural parts of my novel container occupy only a fraction of the space which would be required if such containers were completely assembled.

While the invention has been described with respect to certain particular preferred examples which give satisfactory results, it will be understood by those skilled in the art after understanding the invention, that various changes and modifications may be made without departing from the spirit and scope of the invention and it is intended therefore in the appended claims to cover all such changes and modifications.

What is claimed as new and desired to be secured by Letters Patent is:

1. A container comprising a lower wall, a plurality of spaced supporting rods extending substantially vertically from said lower wall and detachably secured thereto, an upper wall detachably secured to the upper ends of said supporting rods, a pair of facing sheets of Cellophane material secured to opposite faces of said rods so as to form an intermediate wall for said container, and a tape or ribbon arranged in zig-zag fashion around said container and disposed in engagement with the ends of some of said supporting rods, said container being adapted to

have disposed therein an article which is nested in suitable packing material.

2. In a container, a pair of spaced walls forming closures for opposite respective ends of the container, supporting rods disposed in spaced relation for maintaining said spaced walls in container-forming position, and a sheet of material disposed between said walls and secured to said supporting rods so as to form for the container an intermediate closure wall surface, the rods at opposite ends of said sheet of material being disposed substantially closer to each other than the aforesaid spaced relation of said supporting rods so that said opposite ends of said sheet of material may be lapped.

3. In a container, a pair of spaced walls forming closures for opposite respective ends of the container, relatively rigid supporting rods disposed in spaced relation between said spaced walls, and a pair of facing sheets of flexible Cellophane-like material between which said supporting rods are disposed, said sheets of Cellophane-like material being adhesively united to thereby maintain said rods in the desired spaced relation as specified, opposite ends of each of said rods being adapted to extend through passages provided, respectively, therefor in said spaced walls whereby, in the completed container, each wall substantially seats upon the adjacent edge of the Cellophane-like material, said spaced walls being flat disks readily attachable to or detachable from the ends of said rods which project beyond the edges of the Cellophane-like material.

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