Oct. 31, 1933. H. DERMAN 1,933,099

BUILT-UP CONTAINER

Filed Jan. 13, 1933

Fig. 1

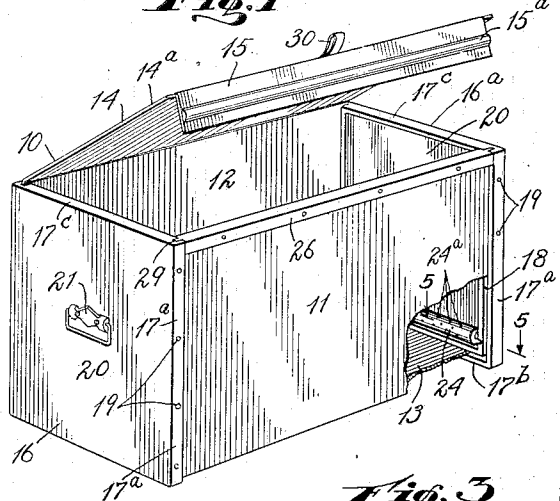


Fig. 6

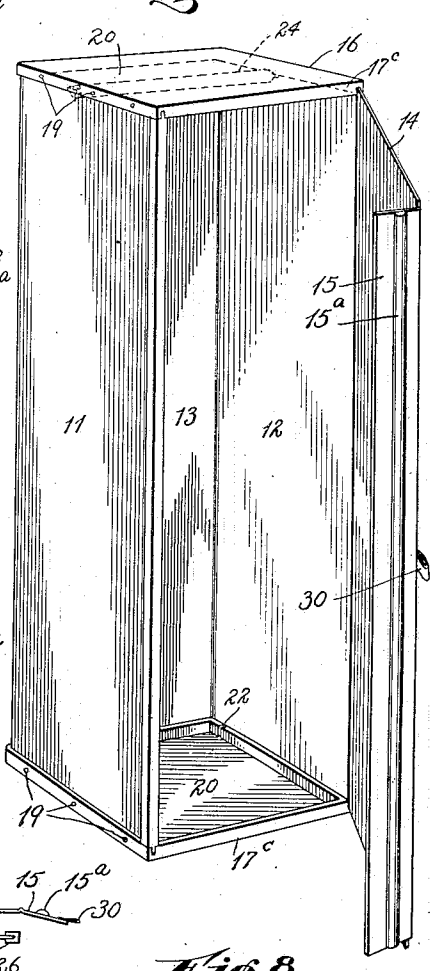


Fig. 2

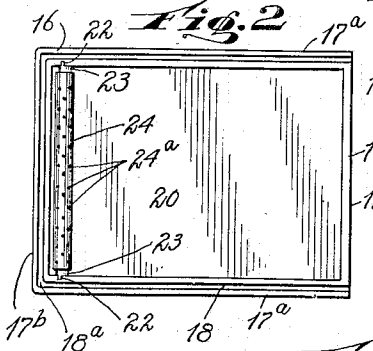


Fig. 3

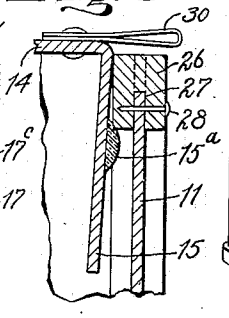


Fig. 4

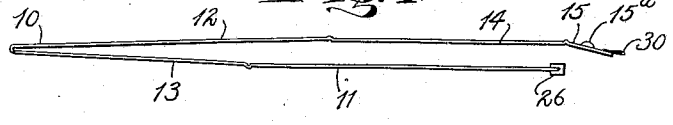


Fig. 5

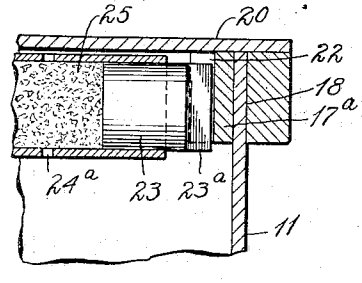


Fig. 7

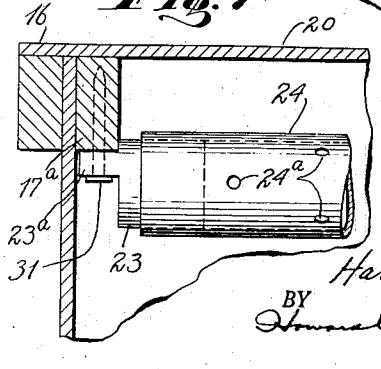
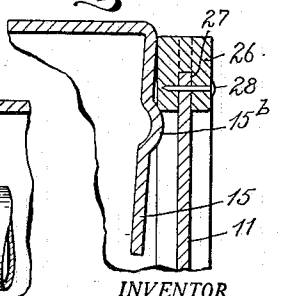


Fig. 8



INVENTOR.

Harry Derman

BY

Howard E. Thompson

ATTORNEY.

Patented Oct. 31, 1933 1,933,099

UNITED STATES PATENT OFFICE

1,933,099

BUILT-UP CONTAINER

Harry Derman, Laurelton, Long Island, N. Y.

Application January 13, 1933. Serial No. 651,461

15 Claims. (Cl. 206—10)

This invention relates to containers for articles of various kinds and classes, and particularly to the construction of containers of this class of inexpensive material, whereby they may be sold at a comparatively low retail price and yet afford to the user a strong, practical and durable box or container which will have many uses, depending upon its size and construction; and the object of the invention is to provide a box or container of the class described, the side walls and cover of which are formed from a single sheet of heavy, fibrous material such as paper, cardboard, fibre board, corrugated board or the like, and end walls detachable with respect to said foldable side walls and cover consisting of a frame covered with a sheet of material common with that employed in the side walls of the container, and the rails of the frame including grooves for receiving the edges of the side walls of the container with means for securing side edges in connection with the frames; a further object being to provide a perforated tubular body, with means for supporting the same in connection with one or both of the end walls, said body containing suitable salts or compounds of any volatile, insecticide material to render the container substantially moth-proof in certain uses thereof; a further object being to provide the free edge of the cover of the container with a depending flange adapted to enter the container and including means for supporting the cover against accidental displacement and to effect a more perfect seal between the cover and container; the free edge of the side wall of the container opposite the hinge side of the cover including a reinforcing strip in connection with which the closure and seal flap operates; and with these and other objects in view, the invention consists in a container of the class and for the purpose specified, which by virtue of its construction may be compactly folded for shipment, and which is constructed as hereinafter described and claimed.

The invention is fully disclosed in the following specification, of which the accompanying drawing forms a part, in which the separate parts of my improvement are designated by suitable reference characters in each of the views, and in which:

Fig. 1 is a perspective view of one form of container which I employ, showing the cover in a partially open position, and with part of the construction broken away.

Fig. 2 is an inside plan view of one of the end walls that I employ.

Fig. 3 is a sectional, detail view showing the manner of retaining the cover in closed and sealed position.

Fig. 4 is a side edge view of the side walls and cover of the container, detached, and in substantially collapsed position.

Fig. 5 is a partial section on the line 5—5 of Fig. 1 on an enlarged scale.

Fig. 6 is a perspective view of another form of container designed for use as a wardrobe.

Fig. 7 is a sectional, detail view of a part of the container shown in Fig. 6; and

Fig. 8 is a view similar to Fig. 3 but showing a slight modification.

In Fig. 1 of the drawing, I have shown one method of carrying my invention into effect in the construction of a box or case which may be termed a chest, designed for the storage of articles of various kinds and classes, and to provide a utility chest for convenient use in the home. While this chest is shown of one cross sectional contour, it will be understood that this contour may be varied to suit various conditions.

In the drawing, the container is made from three, detachably connected parts, namely a part 10 forming the side walls 11 and 12, bottom wall 13, top or cover 14 including its closure flange 15, and parts 16, 16*a*, both of which are of similar construction and form the end walls of the container. Thus, the brief description of one part 16, 16*a* will apply to both parts.

In Fig. 2 of the drawing, I have shown in detail an inside view of the part 16. This part or end wall consists of a rectangular frame 17 having side frame members 17*a*, bottom frame members 17*b* and a top frame member 17*c*. The side frame members 17*a* and 17*b* are formed of separate spaced parts to provide grooves 18 therebetween communicating with each other at their corner intersections at 18*a* so as to receive the edges of the side walls 11 and 12 and bottom wall 13 of the container, as will be apparent.

In placing the edges of the walls 11, 12 and 13 in the grooves 18, the same may be secured in position by a suitable adhesive if the box is to become a permanent assemblage, or as seen in the accompanying drawing upholstery or other tacks 19 may be passed through the rails 17*a*, 17*b* and into the edges of the walls 11, 12 and 13 to secure them against displacement. Mounted on the outer surfaces of the frames 16, 16*a* is a covering 20 which is glued or otherwise secured in position on the frames and to support the separate parts of the frames in proper relation with respect to each other. This covering is preferably of the

same texture as that employed in the part 10, so that the entire box or case will have a common appearance. In this connection, it will also be understood that the members of the frames 17 as well as the other parts of the container may be colored in harmony with the color of the parts 10, 16, 16*a*. I also preferably arrange on the outer faces of the wall portions 20, suitable handle members 21, facilitating the carrying of the box or case, but these handle members may or may not be employed, as will be apparent.

The inner surfaces of the side rails 17*a* of the frame 17 are provided with grooves 22 to receive protruding tongues on plug ends 23 of tubular containers 24 for suitable, volatile insecticide material such as indicated at 25 in Fig. 5 of the drawing. This material may be of a camphor, cedar or other base to render the interior of the container substantially moth-proof, and the fumes from the material 25 pass out through perforations 24*a* in the tube 24.

The tube 24 may be constructed of heavy cardboard, wood, metal or the like, and the arrangement of the tongues 23*a* on the plugs 23 is such as to provide for the mounting of the tubes in the manner shown in Figs. 6 and 7 for use as hangers, as later described. The free edge of the side wall 11 of the container includes a reinforcing and finishing strip 26, the lower surface of which is grooved as seen at 27 to receive the upper edge of the wall 11, which wall is glued or otherwise secured to the strip 26. In the construction shown, tacks 28 are employed for securing the parts together and the ends of the strip 26 are provided with projecting tongues 29 entering the ends of the grooves 18 in one of the side frames 17*a* of the frame of each part 16, 16*a*.

I also preferably employ on the outer surface of the flange 15 of the cover 14 an outwardly projecting longitudinal bead or rib 15*a* which is so positioned as to tensionally engage the lower inner surface of the strip 26 to retain the cover 14 against accidental displacement from the container and also to provide a longitudinal seal between the strip 15*a* and the finishing strip 26. It will also be noted on a consideration of Fig. 1 of the drawing that the flange 15 including the strip 15*a* is of less longitudinal dimensions than the cover 14, so that the protruding ends 14*a* of the cover will lie upon and overlap the upper surfaces of the rails 17*c* and will be held in engagement therewith by the tensional engagement of the bead 15*a* with the strip 26, it being understood in this connection that the flange 15 which is folded with respect to the cover 14 has a normal tendency to flex outwardly with respect to the wall 11.

At 30, I have shown a finger piece or strap employed centrally of the cover 14 to facilitate the forcible disengagement of the bead 15*a* with respect to the strip 26 in the operation of opening the cover.

In Fig. 4 of the drawing, I have shown the part 10 of the box substantially in its collapsed position or the position assumed by said part in the packing and shipment of the container, it being understood that the two parts 16, 16*a* may be placed on one side face of the folded part 10, and the entire unit wrapped together for storage and/or shipment, and as clearly seen in Fig. 4 of the drawing, the walls 11 and 13 lie upon the walls 12 and 14.

In Fig. 6 of the drawing, the several parts of the container, cabinet or the like are identical with the parts shown in Fig. 1 of the drawing, with the sole exceptions that the walls 11, 12, 13, cover 14 and flap 15, including the bead strip 15*a* are made longer than the corresponding walls in the structure shown in Fig. 1, by using a sheet of material of greater width. In use, the container is set on end, one of the parts 16, 16*a*, serving as a bottom and the other part as a top to the container, thus forming of the complete articles, a wardrobe, utility closet, cabinet or other container. If used as a clothes closet, the tube 24 is secured centrally of the opposed rails 17*a* of the upper end wall or part 16 by passing nails or other securing devices 31 through the projecting tongues 23*a* of the plugs 23, and into the inner rails of the frame 17*a* in the manner shown in Fig. 7 so as to provide a clearance between the upper surface of the tube 24 and the inner surface of the closure wall 20 of the part 16, permitting the mounting of coat hanger hooks or the like upon the tube, which in this construction, forms a supporting rail for the hangers or garments of various kinds and classes.

It will appear that the desired spacing will be formed by offsetting the tongue 23*a*, and in the construction of the several forms of the apparatus, all of the tongues or plugs will be of similar construction, thus adapting the tubes 24 to the different uses. At the same time, it will appear that by virtue of the uniformity of the construction of the several parts, and especially the parts 16, 16*a*, these parts may be employed with various types, forms and sizes of cabinets with respect to the distance between the parts 16, 16*a*. By changing the contour of the parts 16, 16*a*, and correspondingly changing the dimensions of the walls 11, 12, 13 and the cover 14, the same results may be carried out in different lengths of cases of other cross sectional forms. By this I mean that long, narrow cases, or what might be termed, flat cases, may be constructed, as well as rectangular or substantially rectangular cases as shown in the accompanying drawing.

In the use of the device shown in Fig. 6 it will appear that the cover 14 may be swung inwardly and outwardly to form a door controlling access to the wardrobe, closet or cabinet, the strap or finger piece 30 facilitating this operation.

In Fig. 8 of the drawing, I have shown a slight modification wherein the retaining bead or seal 15*b* is formed from the material of the flange 15 instead of by applying a strip thereto as in the construction shown in Fig. 3. It will be understood that the container or the several parts thereof may be colored or ornamented to suit the various uses thereof or to have them harmonize with the rooms or compartments in connection with which they are employed. While I have shown certain details of construction for carrying my invention into effect, it will be apparent that I am not necessarily limited to these details, and various changes in and modifications of the construction herein shown and described may be made within the scope of the appended claims without departing from the spirit of my invention or sacrificing its advantages.

Having fully described my invention, what I claim as new and desire to secure by Letters Patent, is:

1. A built up container of the class described consisting of separate, detachably connected parts, one of said parts forming the side, bottom and cover walls of the container and the other parts being of similar construction and forming the end walls of the container and detachable with respect to said part, means for securing the

edges of the side and bottom walls of the first named part to the corresponding edges of the end wall parts, and said means comprising grooved frames on the inner surface of said end wall parts receiving the edges of the side and bottom walls.

2. A built up container of the class described consisting of separate, detachably connected parts, one of said parts forming the side, bottom and cover walls of the container and the other parts being of similar construction and forming the end walls of the container and detachable with respect to said part, means for securing the edges of the side and bottom walls of the first named part to the corresponding edges of the end wall parts, said means comprising grooved frames on the inner surface of said end wall parts receiving the edges of the side and bottom walls, means for supporting an insecticide material in connection with the frame of one of said end walls, and said last named means comprising a tubular body coupled with the frame in such manner as to form a supporting member thereof.

3. A built up container of the class described consisting of separate, detachably connected parts, one of said parts forming the side, bottom and cover walls of the container and the other parts being of similar construction and forming the end walls of the container and detachable with respect to said part, means for securing the edges of the side and bottom walls of the first named part to the corresponding edges of the end wall parts, said means comprising grooved frames on the inner surface of said end wall parts receiving the edges of the side and bottom walls, and the cover wall of the container including a closure flange adapted to enter the container, and an elongated bead on the flange for retaining the cover against accidental displacement.

4. A container of the class described fashioned from independent wall parts, one of said parts consisting of an elongated sheet of material folded transversely a number of times to form four side wall members of the container, said part when collapsed disposing two of the wall members adjacent the other two members, and the other parts of the container comprising end walls of similar construction, and said end walls having grooves adapted to receive and retain the edges of three of the wall members of the first named part in constructing a container from said parts to provide of the fourth wall member of the first named part a closure or cover controlling the open side of the container.

5. A container of the class described fashioned from independent wall parts, one of said parts consisting of an elongated sheet of material folded transversely a number of times to form four side wall members of the container, said part when collapsed disposing two of the wall members adjacent the other two members, and the other parts of the container comprising end walls of similar construction, said end walls having grooves adapted to receive and retain the edges of three of the wall members of the first named part in constructing a container from said parts to provide of the fourth wall member of the first named part a closure or cover controlling the open side of the container, and said end walls involving frames bordering the edges thereof and in which said grooves are formed.

6. A container of the class described fashioned from independent wall parts, one of said parts consisting of an elongated sheet of material folded transversely a number of times to form four side wall members of the container, said part when collapsed disposing two of the wall members adjacent the other two members, and the other parts of the container comprising end walls of similar construction, said end walls having grooves adapted to receive and retain the edges of three of the wall members of the first named part in constructing a container from said parts to provide of the fourth wall member of the first named part a closure or cover controlling the open side of the container, said end walls involving frames bordering the edges thereof and in which said grooves are formed, and the free edge of one of the side wall members having a reinforcing strip interlocked with the frames of said end walls, said cover having an extending flange cooperating with said reinforcing strip to frictionally retain the cover in closed position.

7. A container of the class described fashioned from independent wall parts, one of said parts consisting of an elongated sheet of material folded transversely a number of times to form four side wall members of the container, said part when collapsed disposing two of the wall members adjacent the other two members, and the other parts of the container comprising end walls of similar construction, means on said end walls adapted to receive and retain the edges of three of the wall members of the first named part in constructing a container from said parts to provide of the fourth wall member of the first named part a closure or cover controlling the open side of the container, the means on said end walls involving frames having grooves for receiving the edges of said side wall members, the free edge of one of the side wall members having a reinforcing strip interlocked with the frames of said end walls, said cover having an extending flange cooperating with said reinforcing strip to frictionally retain the cover in closed position, the ends of the cover being adapted to rest upon the end walls to limit inward movement of the cover with respect to the container, and an outwardly extending beaded part on the flange of the cover cooperating with said reinforcing strip in retaining the cover against displacement.

8. A built up container of the class described consisting of separate, detachably connected parts, one of said parts forming the side, bottom and cover walls of the container and the other parts being of similar construction and forming the end walls of the container and detachable with respect to said part, means for securing the edges of the side and bottom walls of the first named part to the corresponding edges of the end wall parts, and said means comprising frames on the inner surface of said end wall parts and having grooves receiving the edges of the side and bottom walls, the free edge of one of the side wall parts having a reinforcing strip interlocked with the frames of said end walls.

9. A container of the class described fashioned from independent wall parts, one of said parts consisting of an elongated sheet of material folded transversely a number of times to form four side wall members of the container, said part when collapsed disposing two of the wall members adjacent the other two members, and the other parts of the container comprising end walls of similar construction, said end walls having grooves adapted to receive and retain the edges of three of the wall members of the first named part in constructing a container from said parts to provide of the fourth wall member of the first named part a closure or cover controlling the open side of the container, said end

walls involving frames bordering the edges of the inner surfaces thereof and in which said grooves are formed, the free edge of one of the side wall members having a reinforcing strip interlocked with the frames of said end walls, said cover having an extending flange cooperating with said reinforcing strip to frictionally retain the cover in closed position, and a tubular rod coupled with the frame of one of said end wall parts and disposed within the container.

10. A container of the class described fashioned from independent wall parts, one of said parts consisting of an elongated sheet of material folded transversely a number of times to form four side wall members of the container, said part when collapsed disposing two of the wall members adjacent the other two members, and the other parts of the container comprising end walls of similar construction, said end walls having grooves adapted to receive and retain the edges of three of the wall members of the first named part in constructing a container from said parts to provide of the fourth wall member of the first named part a closure or cover controlling the open side of the container, said end walls involving frames bordering the edges of the inner surfaces thereof and in which said grooves are formed, the free edge of one of the side wall members having a reinforcing strip interlocked with the frames of said end walls, said cover having an extending flange cooperating with said reinforcing strip to frictionally retain the cover in closed position, and a rod coupled with the frame of one of said end wall parts and disposed within the container, said rod being tubular in form to provide a container for a suitable material, the walls of the rod being perforated to expose said material in the chamber of the container.

11. A built-up container of the class described consisting of separate detachably connected parts, one of said parts forming the side and bottom walls of the container, said side and bottom walls being hingedly and collapsibly related to each other, two end walls, and said end walls being provided with peripheral means on three edges designed to engage and be secured to the outside of the ends of the aforesaid part when in set up condition.

12. A built up container of the class described consisting of separate detachably connected parts, one of said parts forming the side and bottom walls of the container, said side and bottom walls being hingedly and collapsibly related to each other, two end walls, said end walls being provided with peripheral means on three edges designed to engage and be secured to the outside of the ends of the aforesaid part when in set up condition, and said means involving frames on the inner surfaces of said end walls including portions overlying the outer surfaces of the walls of the first named part when said parts are coupled together to provide at the ends of the container peripheral strips guarding the edges of the walls of the first named part.

13. A built up container of the class described consisting of separate detachably connected parts, one of said parts forming the side and bottom walls of the container, said side and bottom walls being hingedly and collapsibly related to each other, two end walls, said end walls being provided with peripheral means on three edges designed to engage and be secured to the outside of the ends of the aforesaid part when in set up condition, said means involving frames on said end walls, the first named part including a cover hingedly supported in connection with one side wall thereof, and the free edge of the cover including projecting means arranged longitudinally thereof adapted to engage the other side wall of the container to frictionally retain the cover in closed position.

14. A built up container of the class described consisting of separate detachably connected parts, one of said parts forming the side and bottom walls of the container, said side and bottom walls being hingedly and collapsibly related to each other, two end walls, said end walls being provided with peripheral means on three edges designed to engage and be secured to the outside of the ends of the aforesaid part when in set up condition, said means involving frames on said end walls, the first named part including a cover hingedly supported in connection with one side wall thereof, the free edge of the cover including projecting means arranged longitudinally thereof adapted to engage the other side wall of the container to frictionally retain the cover in closed position, and means longitudinally of the edge of the last named side wall cooperating with the means on said cover for retaining the cover against accidental displacement.

15. A built up container of the class described consisting of separate detachably connected parts, one of said parts forming the side and bottom walls of the container, said side and bottom walls being hingedly and collapsibly related to each other, two end walls, said end walls being provided with peripheral means on three edges designed to engage and be secured to the outside of the ends of the aforesaid part when in set up condition, said means involving frames on said end walls, the first named part including a cover hingedly supported in connection with one side wall thereof, the free edge of the cover including projecting means arranged longitudinally thereof adapted to engage the other side wall of the container to frictionally retain the cover in closed position, means longitudinally of the edge of the last named side wall cooperating with the means on said cover for retaining the cover against accidental displacement, a tubular body attached to and transversing one of said frames within the container to form a support and bracing member, and said body being perforated to expose an insecticide material contained therein to the interior of the container.

HARRY DERMAN.