Aug. 28, 1928. 1,682,030

J. BERG

CONTAINER AND METHOD OF MANUFACTURE

Filed May 22, 1925

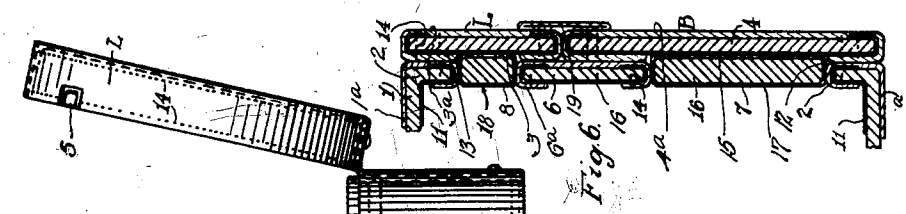


Fig. 6.

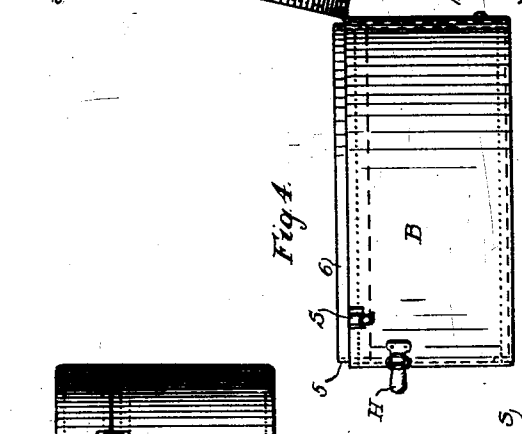


Fig. 4.

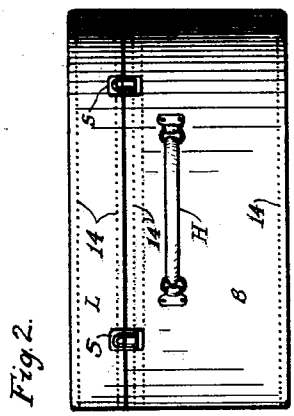


Fig. 2.

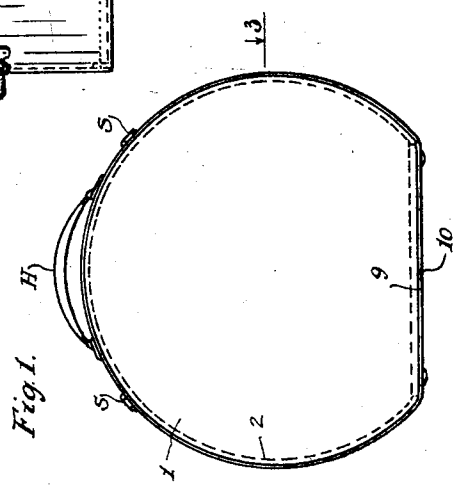


Fig. 1.

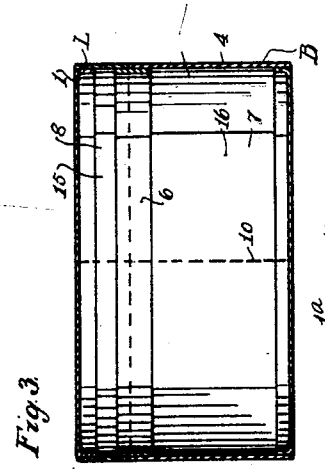


Fig. 3.

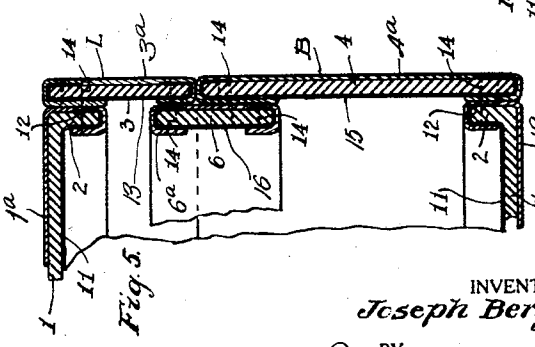


Fig. 5.

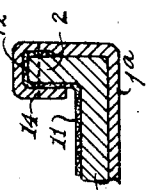


Fig. 7.

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UNITED STATES PATENT OFFICE.

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CONTAINER AND METHOD OF MANUFACTURE.

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My present invention relates to an improvement in the method of manufacture of a form of container which, in its present embodiment, is adapted primarily for use as a hat box.

Generally speaking, the structure herein outlined has a number of improved details whereby the manufacturing assembly of the same is done in a more economical manner than heretofore utilized.

One of the objects of my invention is the method involved, whereby the component structural parts of my container, in quantity manufacture, are completely and individually finished and thereafter finally assembled in a unitary structure of great rigidity, of attractive appearance, light in weight and at a manufacturing cost less than heretofore accomplished.

One advantage of my herein construction relates to the manner in which both covers or ends of the containers are made, by means of a die and are therefore interchangeably usable as "tops" or "bottoms" and the manner whereby, after these symmetrical covers are so formed or pressed, they lend themselves readily to the technique of economical container manufacture, as will be hereinafter more completely outlined in detail.

These and other capabilities and advantages will be disclosed as the description proceeds and it is understood in effect that I do not limit myself to the construction of hat boxes alone as herein outlined, but that my method and structure may be made in suitable and useful forms other than as herein specifically described.

In the accompanying drawings:

Fig. 1 is an end view of my device resting upon its base;

Fig. 2 is a side elevation of my device showing the handle side;

Fig. 3 is a sectional view of the structure shown in Fig. 2, and taken on the line 3—3, Fig. 1, looking in the direction of the arrows;

Fig. 4 is a side elevation of my device with the cover raised, showing the rabbet detail;

Fig. 5 is an exaggerated, fragmentary, sectional view of the component parts of one embodiment of my device as assembled;

Fig. 6 is an enlarged fragmentary, sectional view of another portion of my container, enlarged to show the details of the hinged and back portion of my container; and

Fig. 7 is a fragmentary, sectional view of a portion of the end closing member.

As previously outlined, my container principally comprises five structural elements, and in the method adapted by me in the constructing of this device, each of these elements is separately completed, as to finish, lining and other details, and thereafter are rapidly assembled in such form and combined into a completely assembled container unit of great rigidity, strength and wearing quality.

In the structure herein submitted, there is shown one preferred embodiment in the form of a hat box, and by referring to Fig. 5, it will be noted that the top or lid portion 1 of the container L comprises a flanged cover member 1 which may be made of light, press-board or other suitable fibrous or paper material, and which is susceptible of being pressed in a die whereby the said cover may be blanked out and formed with an integral, more or less annular, flange 2 thereon.

By referring to the body portion B of the container, Fig. 5, it will be noted that the bottom piece is formed in the same manner as described for the lid or top portion and that both the top and bottom end closing portions 1, as will be ascertained in Fig. 1, are of like outline, structure and material and to this extent they may be both produced from the same blanking and forming dies. This then leaves in the actual manufacturing the two end closure members of uniform structure and capable of being utilized on either end of the container, as they are picked up at random in manufacturing assembly.

The lid portion L comprises the end closure element 1 and a hoop like lid forming element 3, which is bent around and about and attached to the substantially annular flange 2 of the top closure piece 1. The body portion B comprises, also, with its bottom end closure member 1, as previously described, a semi-cylindrical formed wall member 4 which is also wrapped about or contoured to the bottom end closure forming member 1, and also attached to said bottom end closure in a manner similar to that to be later described for the lid portion assembly L.

A rabbet 5, Fig. 4, is also formed for the reception and holding of the lid portion against transverse movement when the container is closed, and to make the container dust proof, as shown in Fig. 2, and this rabbet or inset 5 is also formed by a hoop-like element 6 of suitable height and contour affixed to the wall member 4 by said means later to be described.

The usual handle H, Figs. 1, 2 and 4, is provided for carrying the container, and lid latch devices, generally indicated by S, and may also be provided at suitable points to properly lock or latch the lid in operative position when the container is closed, and I lay no claim to the utilization of these particular devices, as this is common practice and there are various embodiments of standard manufacture of these to be had, and I lay no claim to the structure, manner of assembly, as to these component parts, and as combined herewith.

By referring to Fig. 6, and in which view, as in Fig. 5, similar characters indicate like parts, the enclosing end portions 1, top and bottom, are assembled as shown in Fig. 1. The structure of the lid L and body portion B of the container are also here shown with the rabbet or inset forming means 6 constructed in detail and affixed in assembly but it will also be noted that there are added two filler pieces by way of reinforcement, one for the container wall portion, as 7, and the other for the lid wall portion, as 8, and that these two pieces run around the entire inner circumference including the chordal or flat portion 9 of the finished container and lid, Fig. 1, in such manner that when the wall forming portions 3 and 4 are bent and brought together at their respective ends with a butt jointure, as at 10, they are then attached to the reinforcing portions 7 and 8, so as to complete the structure, reinforce the butt joints as at 10, form a bottom or flat upon which to set the container, and to obviate the necessity of gluing where it is decided that gluing may be dispensed with.

In manufacturing this container, the lid top and bottom closure elements 1 are first blanked out of suitable material and then formed in a die as previously described. The wall forming portions 3 and 4 for the lid and body of the container are also cut from the board prior to assembly as is also the rabbet forming element 6. The lid top and container bottom closure elements 1 are provided with the face and edge covering 1^a of leather or imitation thereof, the wall portion 3 of the lid with a similar face and edge covering 3^a, the wall portion 4 of the body of the container with a similar face and edge covering 4^a, and the rabbet forming portion 6 with a similar face and edge covering 6^a, these face and edge coverings in each instance being disposed on a face of the element or portion and extending over the edge of the element or portion and disposed on part of the opposite face thereof, as shown in Figs. 5 and 6.

The top and bottom closure elements 1 are provided with the lining 11 of silk or other desired material, the flange 2 with the like lining 12, the wall portion of the lid with the like lining 13, the wall portion 4 of the body of the container with the like lining 15, the rabbet forming portion 6 with the like lining 16, and the reinforcing pieces 7 and 8 with the like linings 17 and 18, the above mentioned linings, except those of the pieces 7 and 8, being disposed on a face of the respective elements or portions and extending over the edge of the element or portion and over part of the opposite face thereof, the linings of the pieces 7 and 8 being confined to one face and the ends of the pieces, the linings of all said elements and portions, except the pieces 7 and 8, being disposed between the faces or edges of the elements or portions and the face and edge coverings thereof as shown in Figs. 5 and 6, the elements or portions and reinforcing pieces being secured in assembled relation by stitching or other suitable means as indicated in Figs. 5 and 6, the stitching points or rows being denoted by 14.

To provide hinge movement of the lid L, referring to Figs. 5 and 6, advantage is taken of the straight line relation of the lower edge of the wall portion 3 to the upper edge of the wall portion 4 along the chordal line 9, the lower edge of the wall portion 3 when the lid is in closing position bearing at its inner side against the rabbet 5 but not being secured thereto and the lower edge of the portion 3 bearing on the upper edge of the wall portion 4 but not secured thereto, and the portion 3 being prevented from inward movement by the side face of the rabbet 5, the lid can be moved swingingly or pivot on the upper edge of the container body at an angle to the chordal line 9. To prevent the lid from falling off the top edge of the wall portion 4 and to conduce to hinge movement of the lid, the strap 19 is secured at one of its ends to the lower outer face of the wall portion 3 and at its opposite end to the upper outer face of the wall portion 4, the intermediate part of the strap 19 being free from both these wall portions but stretched tightly therebetween, so that when the lid is tiltably lifted it pivots at the bottom edge of the wall portion 3 on the top edge of the wall portion 4 along the line 9 and is prevented from inward movement by the rabbet 5 and is prevented from falling off the top edge of the wall portion 4 by the strap 19 and may be hingedly moved from closing position to open position substantially as shown in Fig. 4.

It is, therefore, obvious from the foregoing disclosure that by this means all of the component parts are easily assembled, one to the other, and after assembly are stitched together readily and in an economical manner.

I have found in actual practice that this form of assembly makes an extremely strong, attractive and durable container which will withstand rough treatment such as may be encountered in containers of this kind in ordinary transportation, and at the same time forms an economical method of quantity manufacture.

Having thus described my invention, what I claim is:

1. In a container, in combination, a body having side wall portions and a bottom received in the space formed between said side wall portions, a lid having side wall portions and a top received in the space formed between the side wall portions of the lid, and downwardly extending means appurtenant to said top and a filler on the interior of the side wall portions of the lid and upwardly extending means appurtenant to said bottom and a reinforcing member and a filler on the interior of the side wall portions of the body arranged in abutting alinement when the lid is in closing position and cooperating for reinforcing the side wall portions of the container for substantially the full depth of the container.

2. In a container, in combination, a circular side wall portion and a straight side wall portion connecting the ends of said circular portion, a lining disposed on the inner faces of said circular and straight side wall portions and extending over the edges thereof and partly over the outer faces thereof, a protective covering disposed over said lining on the outer faces of said circular and straight side wall portions and extending over the edges and partly over the inner faces thereof, a closure member received in said opening formed between said circular and straight side wall portions, and having an angular flange bearing against the inner sides of said side wall portions at one end of said portions, a lining disposed on the inner face of said member and extending over the inner face and edge of said flange and partly over the outer face of the flange, a protective covering disposed over the outer face of said member and over said lining on the outer face and edge and inner face of said flange, and means for securing said flange to said side wall portions whereby said flange is disposed on the inner sides of said portions and is protected by said portions from injurious contact in the event of rough usage of the container.

3. In a container, in combination, a container body and a lid for said body, said body and lid being substantially semicircular in horizontal cross-section, the chordal portions of said body and lid cooperating to provide a flat portion of the container for supporting it in upright position, said body and lid having vertical side wall portions, a hoop-like member on the inner side of the side wall portion of said body forming with the side face of said body side wall portion a rabbet around the upper inner edge thereof, the top and bottom edges of the wall portions of said body and lid being in unattached contact along the chordal lines of the body and lid, the lid when tilted pivoting at the bottom edge of its wall portion on the top edge of the wall portion of said body and bearing at the inner side of the bottom edge of the wall portion of the lid against the side face of said rabbet for thereby preventing inward movement of the lid at the bottom edge of its wall portion during tilting movement of the lid, and means for maintaining the top and bottom edges of the wall portions of the container body and lid in pivotal contact during tilting movement of the lid.

4. In a container, in combination, a container body and a lid for said body, said body and lid being substantially semicircular in horizontal cross-section, the chordal portions of said body and lid cooperating to provide a flat portion of the container for supporting it in upright position, said body and lid having vertical side wall portions, a hoop-like member on the inner side of the side wall portion of said body forming a rabbet around the upper inner edge of said body portion, the top and bottom edges of said body and lid being in unattached contact along the chordal lines of the body and lid, the lid when tilted pivoting at the bottom edge of its wall portion on the top edge of the wall portion of said body and bearing at the inner side of the bottom edge of the wall portion of the lid against said rabbet for thereby preventing inward movement of the lid at the bottom edge of its wall portion during tilting movement of the lid, and a flexible strap secured at one of its ends to the outer side of the wall portion of the lid near the bottom thereof and secured at its opposite end to the outer side of the wall portion of said body near the bottom thereof for maintaining the bottom edge of the wall portion of the lid in pivotal contact with the top edge of the wall portion of said body during tilting movement of the lid.

5. In a container, in combination, a container body having a wall portion provided with a straight end edge, and a lid for said body having a wall portion provided with a straight end edge, the straight end edge of the wall portion of the lid bearing on and

pivotally contacting with the straight end edge of the wall portion of said body for unattached tilting movement of the lid.

6. In a container, in combination, a container body having a wall portion provided with a straight end edge, a lid for said body and having a wall portion provided with a straight end edge, the straight end edge of the wall portion of the lid bearing on and pivotally contacting with the straight end edge of the wall portion of the body for unattached tilting movement of the lid, means for preventing inward movement of the wall portion of the lid on the wall portion of the body during tilting movement of the lid, and means for maintaining the end edge of the wall portion of the lid in pivotal contact with the end edge of the wall portion of the body during said tilting movement.

7. In a container, in combination, a container body having a wall portion provided with a straight end edge, a lid for said body and having a wall portion provided with a straight end edge, the straight end edge of the wall portion of the lid pivotally contacting with the straight end edge of the wall portion of the body for unattached tilting movement of the lid, means for preventing inward movement of the wall portion of the lid on the wall portion of the body during tilting movement of the lid, means for maintaining the end edge of the wall portion of the lid in pivotal contact with the end edge of the wall portion of the body during tilting movement of the lid, and a covering on the outer faces of the wall portions of the body and lid and extending over the end edges of said portions onto the inner faces thereof for protecting said faces and end edges and providing smooth rounded end edges of said portions conducing to pivotal movement of the end edge of the wall portion of the lid on the end edge of the wall portion of the body.

8. In a container, in combination, a container body having a side wall portion provided with a straight top edge, a band on the inner side of said side wall portion forming a rabbet on the inner side of said wall portion along said edge, and a lid for said body, said lid having a side wall portion provided with a straight bottom edge pivotally contacting with the top edge of the side wall portion of the body for unattached tilting movement of the lid and bearing at the inner side of the bottom edge of the wall portion of the lid against the side face of said rabbet for preventing inward movement of the side wall portion of the lid on the side wall portion of the body during said tilting movement.

9. In a container, in combination, a container body having a side wall portion provided with a straight top edge, a band on the inner side of said side wall portion forming a rabbet on the inner side of said wall portion along said edge, a lid for said body, said lid having a side wall portion provided with a straight bottom edge pivotally contacting with the top edge of the side wall portion of the body for unattached tilting movement of the lid and bearing at the inner side of the wall portion of the lid against the side face of said rabbet for preventing inward movement of the side wall portion of the lid on the side wall portion of the body during said tilting movement, and flexible strap means for maintaining the bottom edge of the wall portion of the lid in pivotal contact with the top edge of the wall portion of the body during said tilting movement.

10. In a container, in combination, a body, a lid for said body, said body and lid being substantially semi-circular in horizontal cross-section, the chordal portions of said body and lid cooperating to provide a flat portion of the container for supporting it in upright position, said body and lid having side wall portions, and means on the inner side of the side wall portion of said body forming with the side face of said side wall portion of the body a rabbet around the upper inner edge of said body portion, the top and bottom edges of the wall portions of said body and lid being in unattached contact along the chordal lines of the body and lid, the lid when tilted pivoting at the bottom end of its wall portion on the top end of the wall portion of said body and bearing at the inner side of the bottom edge of the lid against the side face of said rabbet for thereby preventing inward movement of the lid at the bottom end of its wall portion during tilting movement.

Signed at New York in the county of Queens and State of New York this 7th day of May, A. D. 1925.

JOSEPH BERG.