

Jan. 30, 1923.

1,443,564

F. J. DOLAN.
PAPER BOX.
FILED MAR. 10, 1922.

2 SHEETS-SHEET 1

Fig. 1,

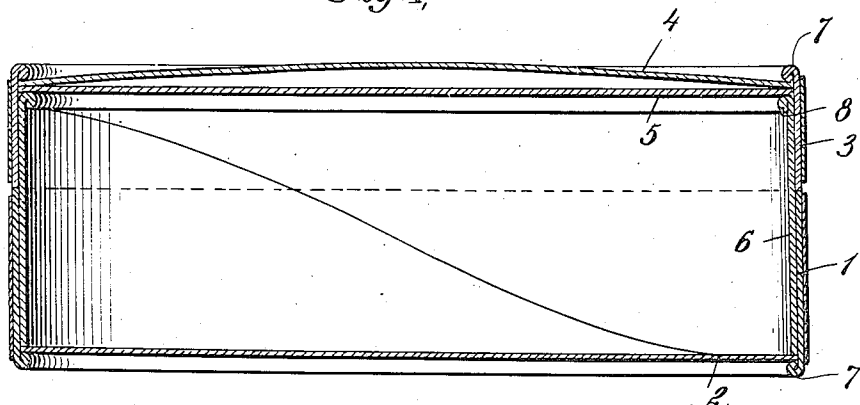


Fig. 2,

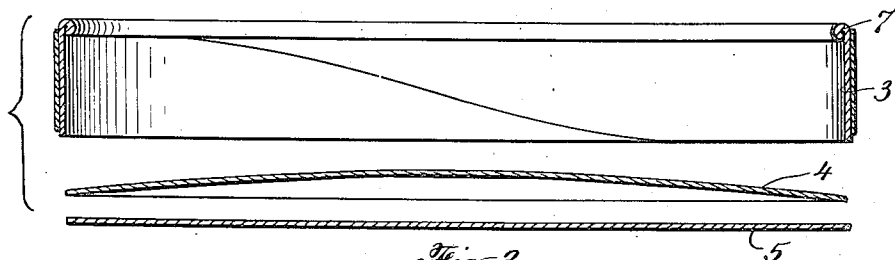
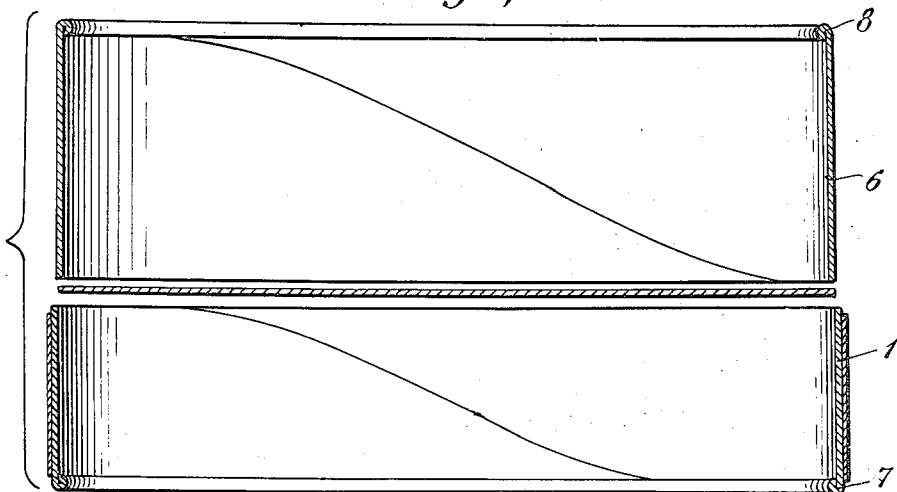


Fig. 3,



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2 SHEETS-SHEET 2

Fig. 4,

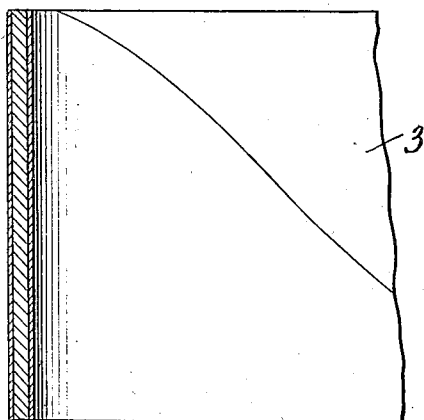


Fig. 5,

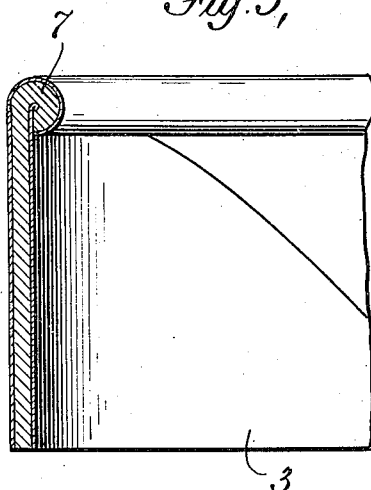
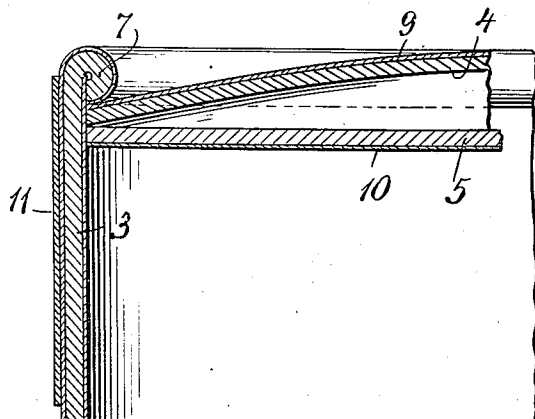
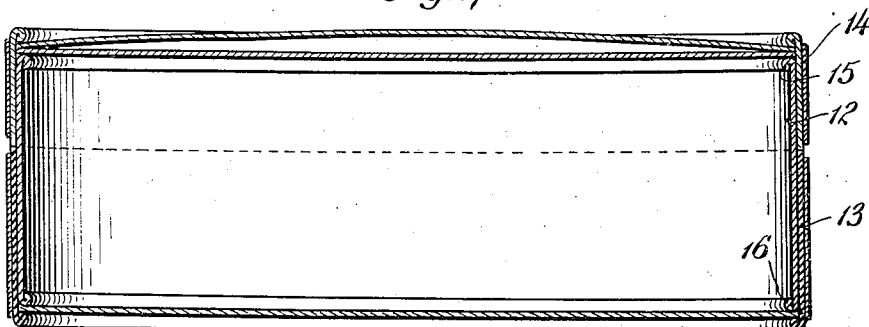


Fig. 6

Fig. 7,



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UNITED STATES PATENT OFFICE.

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PAPER BOX.

Application filed March 10, 1922. Serial No. 542,635.

To all whom it may concern:

Be it known that I, FRANK J. DOLAN, a citizen of the United States, residing at Brooklyn, in the county of Kings, State of New York, have invented certain new and useful Improvements in Paper Boxes; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention is an improvement in paper or cardboard boxes, and relates particularly to a new and improved form of cylindrical box. Boxes designed to hold merchandise which is consumed directly from the box, as for instance confectionery, cosmetics and the like, are preferably of an ornamental character. It is not desirable, however, that the ornamentation of the box add materially to the cost, and to the consequent cost of the merchandise. Boxes of cylindrical shape, or tubular boxes, are especially adapted for holding merchandise of this character. They are of a convenient form, that is ornamental in itself, may be cheaply manufactured, and readily adapt themselves to a wide range of decoration. Boxes of this character are usually made from a plurality of rings, sundry of which carry discs forming ends for the boxes, and the rings may be advantageously cut from formed and finished tubes of relatively great length.

Such tubes are customarily made by winding strips of material spirally up on a form, and this procedure permits the tube to be formed with an intermediate layer of relatively cheap material, and with inner and outer facing layers of better material, which act as finishing strips. The only disadvantages obtaining in such procedure are that the edges of the rings which are exposed in the finished box are raw edges, and since the interfitting rings are of such size that they fit closely, some difficulty may occur in replacing the cover on the box. These disadvantages may be obviated, by applying edging strips to the rings which cover and conceal the raw edges, or one of the finishing layers may be applied after the ring has been cut from the tube, and the edges of the layer turned over upon the ring to bind the edge or edges. Either

method increases the cost of the box, and the edging strips make it more difficult to place the covers; because of the increase in thickness due to such strips.

In the present invention, I provide a finish for the exposed edges of the ring, formed from the material of the ring itself, which not only covers and conceals the raw edge, but reinforces and strengthens the same. In addition the finish is such as to facilitate the placing of the cover on the box, serving to guide and center the cover.

In the drawings;

Figure 1 is a diametrical section of one of the improved boxes,

Figure 2 is a similar view of the cover with the parts separated,

Figure 3 is a similar view of the body of the box and the connecting tubular member with the parts separated,

Figure 4 is an enlarged section of one of the rings from which the box is formed,

Figure 5 is a similar view with the bead formed,

Figure 6 is a partial section of a completed cover,

Figure 7 is a diametrical section of a completed box, showing an alternative construction.

In the present embodiment of the invention, the improved box comprises a body composed of a ring 1, carrying a head 2 forming the bottom of the box, and a cover, consisting of a ring 3, and heads 4 and 5, the former forming the top of the box. A tubular member 6 is provided for connecting the cover and the body, the tubular member being of a diameter to fit within the rings 1 and 3 of the body and cover, and of a height to abut the heads 2 and 5 when the adjacent edges of the rings 1 and 3 abut. Thus a tubular box is formed, composed of three rings and the heads.

Preferably the rings are cut from a tube, which is formed by winding strips of suitable material upon a mandrel or form, and preferably the tubes are composed of a plurality of layers, namely, an inner layer or layers of cheaper material, as for instance cardboard, and facing layers of paper, which act as finishing facings for the interior and exterior of the ring. The strips are so wound that the abutting edges of the

several strips are staggered, and if desired, the exterior face of each ring may be suitably ornamented.

Rings cut from tubes in the above mentioned manner have raw edges, the three layers from which the ring is composed being visible at the exposed edge of the ring, and such raw edges are usually covered by edging strips. These strips are however, objectionable, in that they add to the cost of the box, and since the body and cover fit tightly over the tubular member, the addition of edging strips by increasing the external diameter of the tubular member, makes it more difficult to seat the cover, without injury to the cover or to the tubular member. A finished edge is provided, however, by turning over the edge of the ring upon the inner face of the ring, to form a bead 7, and this bead at the outer ends of the rings 1 and 3, provides an abutment against which the heads 2 and 4 seat, as clearly shown in Figure 1. The bead is formed by turning the edge of the ring inwardly upon the inner face of the ring, and it will be evident that the outer facing strip of the ring will furnish a finish on the bead, and the raw edge will be covered and concealed. The heads 2, 4 and 5 may be held in place in the body and cover, respectively, in any suitable manner, as for instance by glue at the edge of the heads, or they may be merely seated on the beads. In the body, the head 2 is held against the bead 7 by the tubular member 6, and the upper edge of the tubular member also holds the heads 4 and 5 when the cover is in place on the box. As shown more particularly in Figure 4, the head 4 is cupped or dished, so that the central portion thereof, when the head is in place, is in substantially the plane of the adjacent end of the box. The head 5 is plane, and the friction between the edges of the heads and the ring 3 is generally sufficient to hold the heads in place. Heretofore, the free edge of the tubular member 6, that is the edge adjacent to the head 5, has been a raw edge, or it has been covered with an edging strip. In the former case, the edge is unsightly, and in both cases, because the ring 3 must fit tightly over the ring 6, to provide a right closure, there is some difficulty in fitting the head on the tubular member, and after the head has been removed and replaced a few times, the facing strips at the exterior of the tubular member, and on the inner face of the ring 3 become scuffed and rolled up, making it more difficult to properly seat the cover. To cure these objections, I provide the free edge of the tubular member 6 with a bead 8, similar to the bead 7, the material of the tubular member being turned over upon the inner face of the same to provide the bead. Thus the bead provides a finish for

the raw edge of the tubular member, and in addition it serves as a guide in the seating of the cover on the tubular member, and prevents injury to the facing of the tubular member, and to the facing of the cover. As shown more particularly in Figure 4, each of the rings 1, 3 and 6 is composed of a plurality of layers, and when the bead 7 is formed, the outermost layer or facing strip covers the entire bead, so that no part of the cheap intermediate layer or layers is visible, only the facing strips being visible. As shown in Figure 6, the heads 4 and 5 may have suitable ornamental facings, indicated at 9 and 10 respectively, and the exterior of the two rings 1 and 3 are preferably ornamented by a strip 11 of paper, which is pasted about the exterior of the ring, the edges of the strips being spaced from the edges of the rings. In Figure 7 there is shown a construction wherein the tubular member indicated at 12, and connecting the body 13 with the cover 14 has beads 15 and 16 at its opposite ends or edges, the beads being formed in the same manner as the beads 7 before described.

In referring to the boxes of the invention as paper boxes, I use this term to include boxes such as are commonly referred to as paper boxes or card-board boxes, when constructed in the manner and with the advantages characteristic of the invention.

I claim:

1. A paper box comprising a body and a cover, and a tubular member fitting within the body and extending beyond the open end thereof to engage within the cover, said member having at the outer end thereof an inturned bead to provide a finish and a reinforce for the said free edge, and to guide and center the cover to facilitate the placing thereof.

2. A paper box consisting of a body and a cover, and a tubular member fitting within the body and extending beyond the open end thereof to form a neck, to engage within the cover, said tubular member having an outer finishing layer, and having that edge remote from the body inturned to form a bead on the inner face of the member.

3. A tubular paper box consisting of a body and a cover, and a tubular member fitting within the body and extending beyond the open end thereof to engage within the cover, said member having at the outer end thereof an inturned bead to provide a finish and a reinforce for the said end, and to guide and center the cover when placing the same.

4. A tubular paper box consisting of a body and a cover, and a tubular member fitting within the body and extending beyond the open end thereof to engage within the cover, the body and cover each comprising a ring and a head, the ring having an in-

turned bead at its outer end against which the head abuts, and the tubular member having an inturned bead at the end adjacent to the cover engaging the head of the cover when the cover is in place on the body.

5. In a tubular paper box, a body and a cover, each comprising a ring and a head, the rings being beaded at their outer ends to provide abutments against which the heads rest, and a tubular member secured within the body and engaging the head thereof, and extending beyond the open end of the body a distance sufficient to engage the head of the cover when the cover is in place, the head of the cover being held frictionally in place when the cover is removed and being supported by the tubular member when the cover is on the box.

6. In a tubular paper box, a body having a tubular member fitting with the same end extending beyond the body to be engaged by a cover, a cover comprising a ring having an inturned bead at the end remote from the body and a head frictionally held in

place in said ring against said head, and the tubular member engaging the inner face of the head and supporting the head when the cover is in place on the box.

7. A box comprising, in combination, a body, a tubular member mounted in said body and extending beyond the edge thereof and a removable cover adapted to be positioned on said tubular member in co-operative relation to said body, said cover being formed of a ring and a head frictionally held in said ring, and said tubular member being provided with a portion adapted to abut said head and to serve as a stop for said cover as the latter is mounted thereon.

8. A cover for a tubular paper box comprising a card-board ring having a bead formed at one end thereof and a cover member frictionally held in said ring against the bead.

In testimony whereof I affix my signature.

FRANK J. DOLAN.