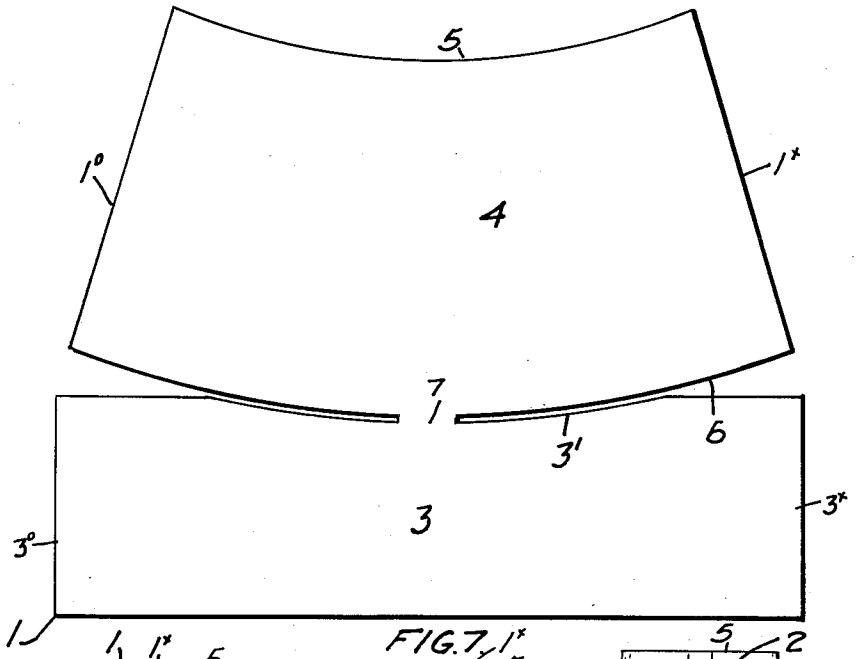
Aug. 14, 1934. L. B. KOCH ET AL 1,969,889

PAPER BOTTLE OR CONTAINER

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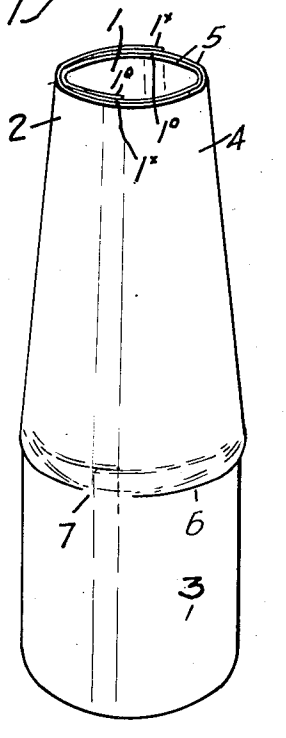


FIG. 1.

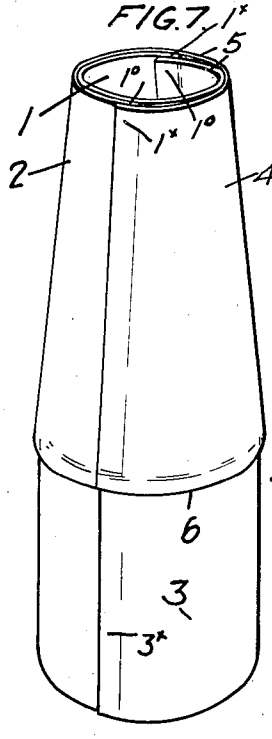


FIG. 2.

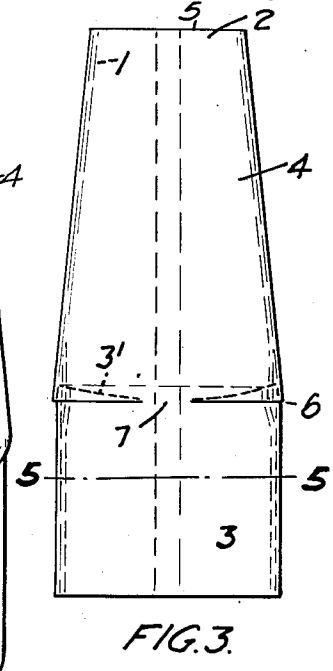


FIG. 3.

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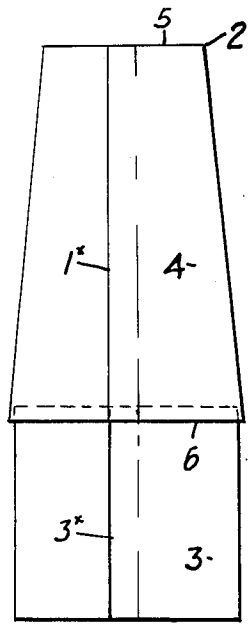


FIG.4.

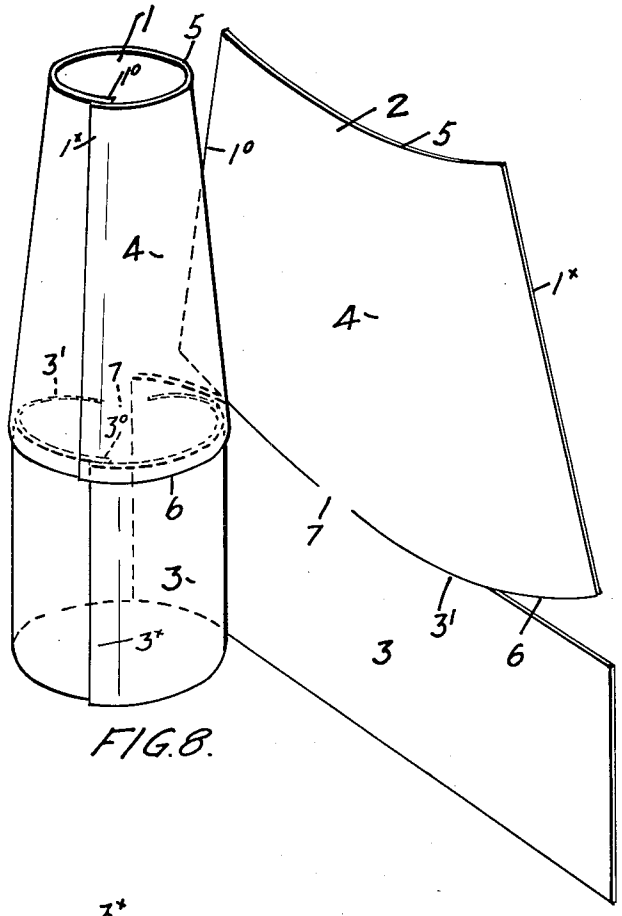


FIG.8.

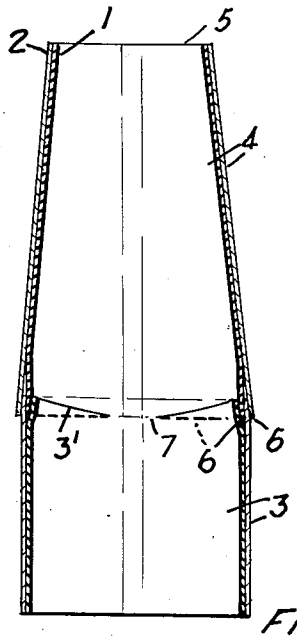


FIG.6.

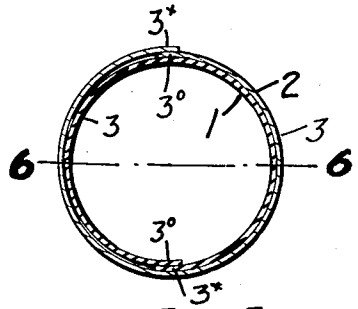


FIG.5.

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UNITED STATES PATENT OFFICE

1,969,889

PAPER BOTTLE OR CONTAINER

Lydia B. Koch and Joseph Buchina, New York, N. Y., assignors to Reinforced Paper Bottle Corporation, New York, N. Y., a corporation of Delaware

Application February 23, 1933, Serial No. 658,055

1 Claim. (Cl. 229—4.5)

Our invention relates to improvements in paper bottles or containers, and the object of the invention is to devise a bottle body having a cylindrical lower portion and a tapered upper portion made from a plurality of such blanks wrapped one over the other forming a plurality of layers.

To effect these objects we stamp out the two blanks each in two connected portions, the lower portion being rectangular forming the cylindrical lower portion of the bottle body, the upper portion being tapered to form the tapered portion of the bottle body, the upper edge of the tapered portion being concave and the lower edge convex to partially extend into a correspondingly concaved recess formed centrally in the upper edge of the lower blank portion.

Fig. 1 is a perspective view of our bottle body.

Fig. 2 is a similar view to Fig. 1 looking from the opposite side.

Fig. 3 is a side elevation of the bottle body as shown in Fig. 1.

Fig. 4 is a side elevation of the bottle body as shown in Fig. 2.

Fig. 5 is a plan section on line 5—5 Fig. 3.

Fig. 6 is a vertical section on line 6—6 Fig. 5.

Fig. 7 is a plan view of one of the blanks out of which the bottle body is formed.

Fig. 8 is a perspective view of a partially formed bottle body showing the inner blank completely wound and the outer blank in position ready for winding over the inner blank.

In the drawings like characters of reference indicate corresponding parts in each figure.

1 and 2 are two blanks out of which the bottle body is formed, the centre of one blank being located on one side of the bottle body and the centre of the other blank on the diametrically opposite side of the bottle body in their wound or wrapped position.

Each blank 1 and 2 is formed with a lower rectangular portion 3 which, when wrapped, forms the lower portion of the bottle body having parallel sides and overlapping end edges $3^{\times}$ and 3^{o} pasted together and an upper tapered portion 4, the upper and lower edges of which are curved in the form of an arc which, when wrapped, forms the tapered portion of the bottle body. The upper edge 5 is concave and the lower edge 6 convex so that, when the blank is wound or wrapped to form the tapered portion of the bottle body, such edges assume a horizontal circular form the end edges $1^{\times}$ and 1^{o} overlapping for the purpose of being pasted or otherwise suitably secured together.

The lower blank portion 3 is provided in its upper edge with a centrally located recess 3^{1} into which the central portion of the lower convex edge 6 of the upper portion 4 extends, the edge 6 and the recess edge 3^{1} being parallel when the blank is in the flat (see Fig. 7), the edges 6 and 3^{1} being connected by a neck 7.

In making up the body on a suitable mandrel, the lower portion 3 of the inner blank 1 is wound into cylindrical form, the edges $3^{\times}$ and 3^{o} of such blank being overlapped and pasted together as indicated particularly in Figs. 5 and 8 to form the lower portion of the bottle body.

The upper portion 4 of the blank 1 is also wound to form the conical upper portion of the bottle body, the lower curved edge 6 at each side of the connecting neck 7 assuming a horizontal position so as to gradually overlap the upper edge 3^{1} of the lower portion 3, such overlap increasing from the centre towards each end of the recess 3^{1} and the full amount of overlap equal to the depth of the recess 3^{1} extending from thence to the end of the blank and to the overlapped end edges $1^{\times}$ and 1^{o}. The opposing overlapping edges of the blank portions 4 and 3 and the end edges $1^{\times}$ and 1^{o} are secured together with a suitable adhesive. The outer blank 2, which corresponds in shape to the blank 1, is then wound around the outside of the inner blank, the overlapping edges $1^{\times}$, 1^{o} and $3^{\times}$, 3^{o} of the blank 2 breaking joint with the corresponding edges of the blank 1 preferably at diametrically opposite sides of the body so that one blank reinforces the other blank to a maximum extent.

After the bottle body is constructed as above described the upper edge is suitably formed or spun up to form the mouth of the bottle and the bottle bottom spun into the lower edge of the bottle body but as this forms no part of the present invention we do not describe the same in detail.

Such a bottle body as we have described can be very cheaply made and of any desired strength and rigidity.

What we claim as our invention is:

A paper bottle comprising two blanks, each blank having an arc shaped upper portion and a rectangular lower portion having an arc-shaped cut away upper edge, the arc shaped lower edge of the upper portion of which extends into the arc shaped cutaway edge of the lower portion so as to leave a neck, the inclined edges of the upper portion being brought together so as to overlap and the outer edges of the lower portion being brought together to overlap and the contiguous edges between the two portions being likewise brought to overlap and all of such edges being adhesively secured together, the blanks being so arranged that the overlapping connected edges of one blank break joint with those of the adjacent blank to form the complete body of the bottle.

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