

No. 809,812.

PATENTED JAN. 9, 1906.

J. C. KIMSEY.

PAPER BOTTLE, CUP, OR OTHER CONTAINER.

APPLICATION FILED JAN. 21, 1905.

Fig. 2.

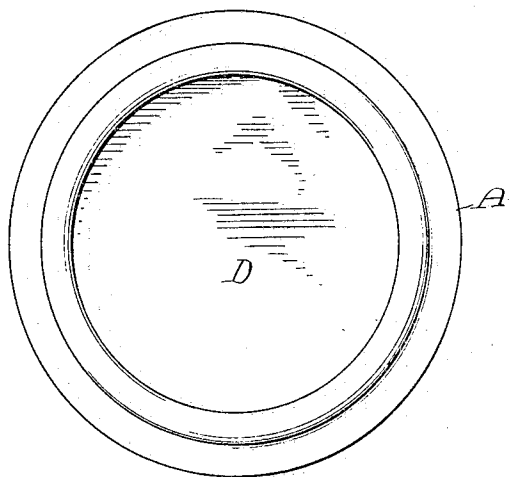


Fig. 1.

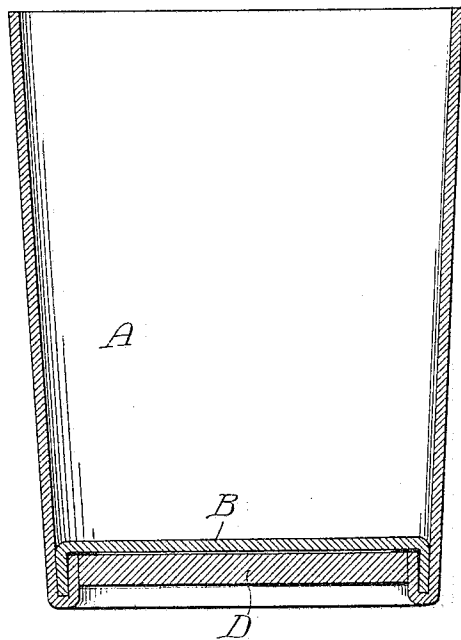


Fig. 3.

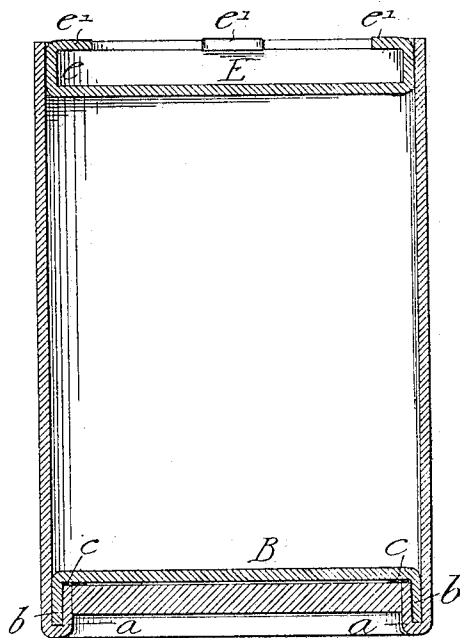
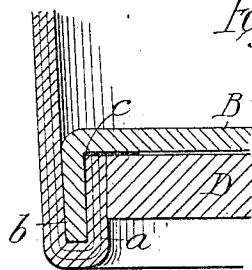


Fig. 4.



Witnesses:

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UNITED STATES PATENT OFFICE.

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PAPER BOTTLE, CUP, OR OTHER CONTAINER.

No. 809,812.

Specification of Letters Patent.

Patented Jan. 9, 1906.

Application filed January 21, 1905. Serial No. 242,137.

To all whom it may concern:

Be it known that I, JAMES C. KIMSEY, a citizen of the United States, residing in Philadelphia, Pennsylvania, have invented certain Improvements in Paper Bottles, Cups, or other Containers, of which the following is a specification.

The object of my invention is to make a paper bottle, cup, or other container entirely of paper or equivalent material which can be cheaply manufactured and which will withstand the rough usage to which such articles are usually subjected.

My invention is particularly designed to take the place of articles heretofore made either of glass or tin and is to be used as a temporary container.

In the accompanying drawings, Figure 1 is a vertical sectional view of a cup or bottle having tapered sides and illustrating my invention. Fig. 2 is an inverted plan view of Fig. 1. Fig. 3 is a vertical sectional view of a container of an even diameter throughout, and Fig. 4 is an enlarged view showing more clearly the method of securing the bottom to the body portion.

Referring in the first instance to Figs. 1, 2, and 4, A is the body portion, which is made from a cylindrical seamless tube which is given the proper taper. This tube is cut in lengths of any size desired and the different sections of the length of tube making cups of different diameters. The paper tube is made by coiling a sheet of paper around a mandrel and securing the several plies of paper together by means of paste or other cementing material, so as to produce a cylinder of the proper thickness without a seam. By the term "seam" I mean to differentiate the body portion of my tube from that in which a tube is made by bending a piece of paper or cardboard of a given thickness and forming a lapped and hooked seam, which would make an objectionable projection which could not be properly bent to form the internal flange at one end of the tube. One end of this seamless tube is turned in so as to form a flat flange *a*. After this flange has been turned in a bottom portion B, having a flat flange *b*, is placed in the tubular body and the flange of the bottom is forced into the space between the flange *a* and the inner surface of the body, as shown clearly in Fig. 4. In some instances

paste or other cementing material *c* is applied at the corner where the flange *b* joins the bottom, and after the paste is applied a solid locking-disk D, of heavy paper, such as cardboard, is forced into the space formed by the flange *a*, forcing in turn the flange *a* hard against the flange *b* at a point near where it joins the bottom, the locking-disk D being of such a diameter and so shaped that it must be forced into position and when in position will have a flat bearing against the flange, the flange of the bottom at this point resisting the pressure of the locking-disk, making a solid three-ply supporting-flange for the cup or bottle. The paste or cement is so applied that a portion of it will extend between the flange *a* and the flange *b*, while another portion will extend between the bottom B and the inner surface of the locking-disk D, as clearly shown in Fig. 4. Thus when the paste or cement is set the locking-disk will be securely attached to the bottom and the flange *a* will be securely attached to the flange *b*. This cement not only forms a means of attaching the parts permanently, but is an absolute seal against air.

The diameter of the bottom B is so proportioned to the inner diameter of the body portion that it must be forced into the body portion when applied. This insures a tight fit between the body and the bottom without using cement at this point, and when the locking-disk D is forced into position the parts will be held rigidly and will be both water and air proof. It will be understood that in time water will penetrate the paper of the cup or bottle without it has been made waterproof, and I preferably waterproof the entire container after the parts have been assembled, and this is done by dipping it in hot paraffin and drying it, so that only a thin coating of paraffin will be applied to the article.

In Fig. 3 I have shown a container in which the body portion is made of paper and of an even diameter throughout, being seamless in the manner mentioned above. The bottom of the container is made in substantially the same manner as previously described, and the mouth of the container is closed by a flanged cap E, of paper, the flange *e* of the cap fitting snugly in the mouth of the bottle and provided in the present instance with tabs *e'*, which are bent in, as shown, and so

formed that by pulling on the tabs the cap can be readily removed. The cap, however, is forced into the bottle so that it cannot work loose under ordinary conditions.

5 My improved bottles and cups or other containers can be made so cheaply that after they are once used they can be thrown away, thus making them sanitary to the highest degree.

10 While I have illustrated my invention in the form of a bottle or a cup, it will be understood that it can be used as a box or package for containing any material and may be made in any shape desired.

15 The process of manufacturing this improved container is fully set forth and claimed in an application for patent the petition of which bears even date herewith.

I claim as my invention—

20 1. As a new article of manufacture a tubular body portion having an internal flat flange at one end forming with the side wall a straight annular cavity, a bottom having a flat flange, said bottom fitting tightly against
25 the inner walls of the body and its flange extending into the annular cavity of the body, with a solid locking-disk pressed into the cavity formed by the body and bottom so as to force the end of the flange of the body against
30 the flange of the bottom at a point close to the bottom, substantially as described.

2. As a new article of manufacture a tubular body portion having an internal flat flange at one end forming with the side wall a
35 straight annular cavity, a bottom having a flat flange, said bottom fitting tightly against the inner walls of the body and its flange extending into the annular cavity of the body, with a solid locking-disk pressed into the cavity
40 formed by the body and bottom so as to force the end of the flange of the body against the flange of the bottom at a point close to the bottom with a cementing material applied between the flange of the body and the

flange of the bottom, substantially as described. 45

3. As a new article of manufacture a tubular body portion having an internal flat flange at one end forming with the side wall a
50 straight annular cavity, a bottom having a flat flange, said bottom fitting tightly against the inner walls of the body and its flange extending into the annular cavity of the body, with a solid locking-disk pressed into the cavity
55 formed by the body and bottom so as to force the end of the flange of the body against the flange of the bottom at a point close to the bottom, a cement applied to the corners of the bottom so as to cement the flange of the body to the flange of the bottom, and the
60 locking-disk to the bottom, substantially as described.

4. As a new article of manufacture a tapered tubular body portion narrower at the bottom than at the top, and having an internal flat flange bent up from the bottom forming
65 with the side wall a straight annular cavity, a bottom portion having a depending flat flange extending into the annular cavity of the body, and fitting tightly against the walls of the body, with a locking-disk less in thickness than the depth of the flange of the body
70 and having a straight edge, said locking-disk forced into the cavity formed by the body and bottom, whereby the flange of the body is forced hard against the flange of the bottom at a point close to the bottom so as to make a tight fit between the bottom and the body, the tapered extension of the body preventing the displacement of the disk, substantially as described. 75 80

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JAMES C. KIMSEY.

Witnesses:

WILL. A. BARR,
JOS. H. KLEIN.