L. W. LUELLEN.

CUP CONTAINER.

APPLICATION FILED APR. 3, 1911.

1,264,950.

Patented May 7, 1918.

2 SHEETS—SHEET 1.

Fig. 1.

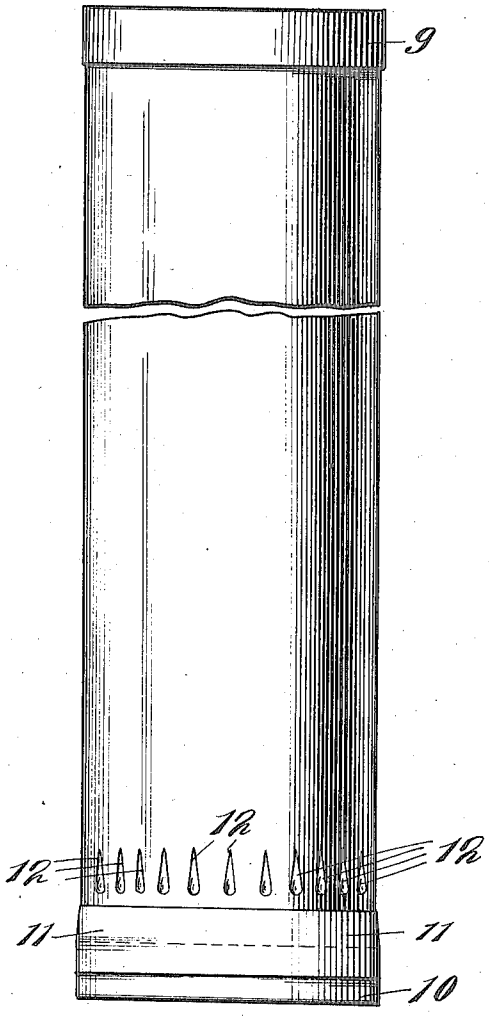
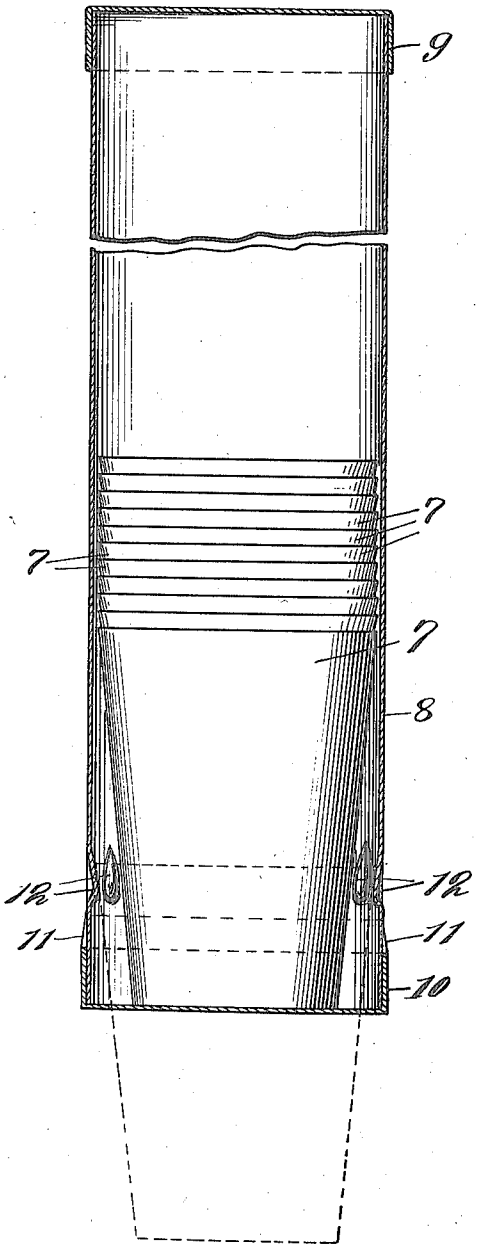


Fig. 2.



Witnesses:
Harry C. Hebig
Edw. Lyon Parnell.

Lawrence W. Luellen
Inventor
By his Attorney Clifford E. Dunn.

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2 SHEETS—SHEET 2.

Fig. 3.

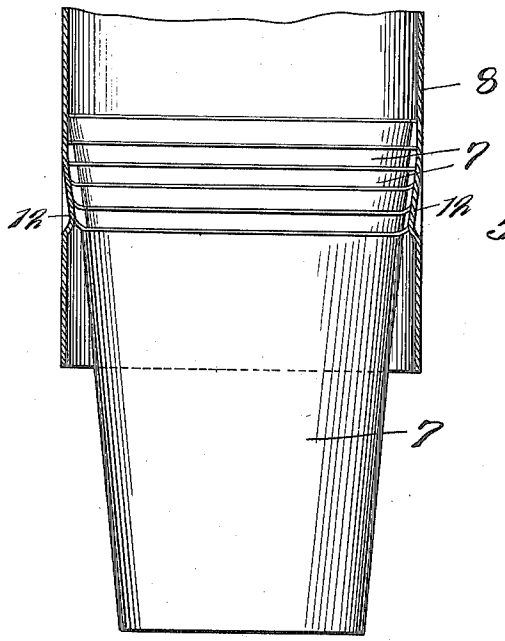


Fig. 4.

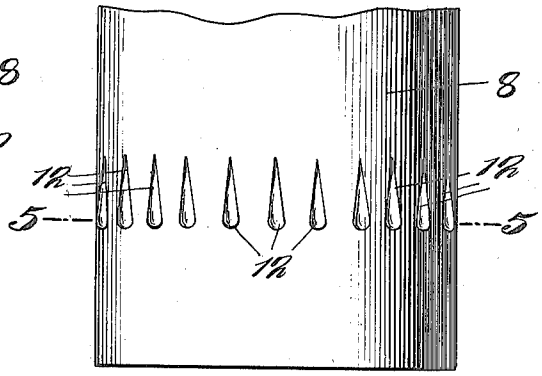


Fig. 5.

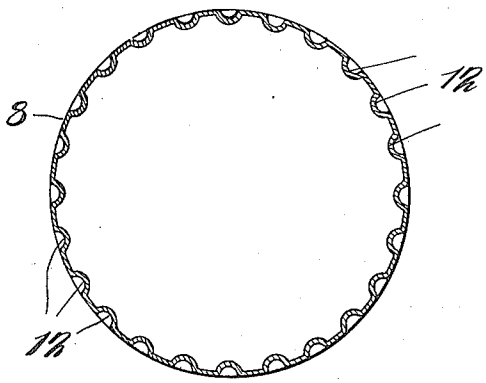
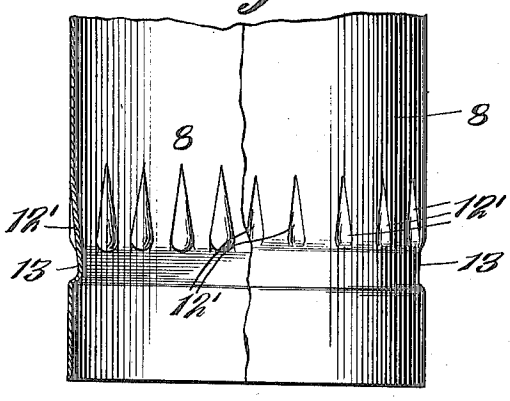


Fig. 6.



Witnesses:
Henry C. Hoebig
Chas. Lyon Russell.

Inventor
Lawrence W. Luellen
By his Attorney
Clifford E. Dunn

UNITED STATES PATENT OFFICE.

LAWRENCE W. LUELLEN, OF NEW YORK, N. Y., ASSIGNOR TO INDIVIDUAL DRINKING CUP COMPANY, OF NEW YORK, N. Y., A CORPORATION OF MAINE.

CUP-CONTAINER.

1,264,950. Specification of Letters Patent. Patented May 7, 1918.

Application filed April 3, 1911. Serial No. 618,516.

To all whom it may concern:

Be it known that I, LAWRENCE W. LUELLEN, a citizen of the United States, residing in the city of New York, borough of Manhattan, county and State of New York, have invented certain new and useful Improvements in Cup-Containers, of which the following is a full, clear, and exact specification.

This invention relates generally to cup holders or containers, the object of the invention being to provide a convenient and compact receptacle which will contain a supply of cups preferably nested, prevent all access of dust or impurities from contaminating said cups while in the holder, and present the cups successively in such manner that they can be grasped and removed one by one without impairing their sanitary condition.

My invention may be embodied in various forms but one form which I have found especially convenient and satisfactory is that illustrated and described herein.

The sanitary cups which at the present time are in use are made of paper suitably treated to make them water-proof and self-sustaining. The cups are fragile and are intended to be used once and then discarded. To assure the user of the cups that they are in a sanitary condition when removed from the container it is essential that the handling of the cups be avoided as much as possible and that they be shielded from contaminating influences while being placed in the container. This can best be done at the factory or depot of the manufacturer or distributer of the cups.

When the cups are permitted to remain in the original package cleanliness of the cups is assured and furthermore the fragile cups are guarded from injury. The cups are thus not only guarded from being soiled or infected but also from being broken or otherwise injured especially when they are made of a fragile material.

It is desirable to have the cups incased in a package when delivered from the manufacturer's depot of distribution, the entire series of nested cups being securely covered and sealed, and to have such package capable of being readily opened in such manner that the cups will be presented for removal one at a time and the nest of cups and the inside of the cup which is presented for removal be shielded from dirt and contaminating influences.

Figure 1 of the drawings, which accompany and form a part of this specification, shows an elevation of an original package container embodying my present improvement.

Fig. 2 is a similar view partly in longitudinal section of the container illustrated in Fig. 1.

Fig. 3 is a somewhat enlarged longitudinal section of the lower portion of the container showing in elevation a series of nested cups, one of the cups being in position to be removed and the others in position to successively assume this to-be-removed position.

Fig. 4 is an enlarged elevation of the delivery end of the package illustrated in the preceding figures. In this view the end is illustrated substantially as it will appear after the seal and removable closure have been removed for permitting the cups to assume the position illustrated in Fig. 3.

Fig. 5 is a cross section of the container taken at about the plane indicated by the line 5—5 in Fig. 4.

Fig. 6 shows another form of cup support and retarding device this figure being partly in longitudinal section.

A stack or pile of nested cups is illustrated and is designated by the reference character 7 contained within an original package comprising a paste-board cylinder 8 having permanently secured to its end which in practice will preferably be the top end, a closure in the form of a cap 9. The other end of the container or cylinder is shown closed by a removable closure or cap 10. This latter cap is held in position by means of a readily removable sealing strip 11. In the illustration the bottom of the lowermost cup of the stack of cups 7 rests upon the closure 10.

The portion of the container adjacent the end covered by the removable closure 10 is provided with a cup retaining or retarding device for permitting the cups to be doled from the container one at a time. This device will support the stack of cups in such position that one of the cups will protrude a sufficient distance from the open end of the container to be taken hold of and withdrawn after which the gravity of the stack

of cups will cause another cup, the next succeeding cup of the stack, to assume a similar position.

Packed in the manner above described the cups will be delivered to the users in the original package container. The entire stack will be securely inclosed within the container so that no part of the cup or the inside of the container will be exposed. When it is desired to gain access to the stack of cups the removable sealing strip 11 will be removed when the closure or cap 10 may be removed which having supported the lowermost cup of the stack will permit the cups to assume the position in dotted line in Fig. 2, and in full line in Fig. 3. When in this position the lowermost cup of the stack of cups will close or seal the interior of the container, the entire surfaces of all the other cups and its own interior and rim.

As a convenient and inexpensive means for retaining and retarding the cups the portion of the cylinder adjacent the end which will be opened is provided with a series of embossed inwardly projecting engaging members 12. These engaging members in the present illustration are formed in the body of the paste-board tube which constitutes the cylinder 8. A sufficient number of these will be arranged in a circumferential zone for engaging the lips of several of the cups at the same time so that no one cup will be compelled to support the entire stack of cups. The formation of the projections 12 may be wedge-shaped so that the cups will gradually come into more forcible contact with the engaging surface and furthermore so that after a cup has remained for some time in one position in engagement with the retaining surface after it has been moved to a new position by the withdrawal of the preceding cup an increment of pressure will be applied to the cup by its detaining surface and thereby prevent accidental discharge of the cup.

The idea of the invention is that the cups are not to spontaneously move out of the container. They are inactive so far as being removed is concerned but the cups will actively or spontaneously move into a position to be taken hold of by the user for removal.

The cups which are generally used at the present time are coated with paraffin and a considerable thickness of this is applied to the rim of the cup which will be engaged by the retarding device. This will enable the container to be made of coarse material owing to the fact that the cups being provided with paraffin will afford their own lubrication in passing over the rough surface of the paper.

In Fig. 6 in addition to the embossed protrusions 12′ a narrow neck 13 is provided outwardly of such protrusions. In practice the cups will engage the protrusions 12′ which spring with an easy angle from the face of the cylinder and merge into the neck portion 13. When a cup is withdrawn it will be compressed slightly at the rim by the protrusions 12′. After the cup rim has been initially compressed by the protrusions 12′ it will pass to the neck 13, where it will completely and hermetically seal the interior of the casing. For all practicable purposes the device illustrated in Figs. 1–5 will effect a sealing of the interior of the container. The device, however, in Fig. 6 will effect a complete and absolute sealing.

In Fig. 2 cups having plain rims are illustrated and in Fig. 3 cups are illustrated with flanges at the rim.

Although the container is illustrated in the form of an original package, yet the character of device herein set forth is illustrative. The container will be made of material suitable for its intended situation when in use. Articles besides those mentioned may be packed in this manner for shipment or distribution. Various changes will suggest themselves in manner of construction to meet the exigencies.

Having thus described my invention what I claim and desire to secure by Letters Patent is:

1. A container comprising a paste-board cylinder having at one end a neck of reduced area, and inwardly of such neck a series of longitudinally disposed ribs springing from the normal surface of the cylinder and merging into the surface of the neck.

2. A container comprising a cylinder having at one end a neck of reduced area, and inwardly of such neck a series of longitudinally disposed ribs springing from the normal wall of the cylinder and gradually merging into the surface of the neck.

3. A container for a stack of nested paper cups formed with a contracted portion in proximity to one end thereof, a closure for each end of said container adapted to be sealed thereto to provide an original package, one of said closures being rendered readily removable to permit the lowermost cup to engage with said contracted portion and protrude beyond the adjacent end of said container.

4. In combination with a stack of nested paper cups, a tubular container therefor, provided with a permanent closure at one end and a detachable closure at the other end, a plurality of inwardly directed projections being formed on the interior of said container in proximity to one end, whereby upon the removal of said detachable closure, said projections will be engaged by the lowermost cup of the stack, a portion of the cup protruding below the end of the container to permit its withdrawal therefrom.

5. In combination with a stack of nested

paper cups, a tubular container therefor, having a permanent closure at one end and a removable closure at its other end, said removable closure being initially sealed to said container to form an original package for the cups, and a plurality of inwardly directed abutments projecting therefrom and adapted to support the cups within the container in such a way as to permit the cups to be successively separated when individually pulled from the stack after the removable closure has been detached from the container.

6. An original package for containing a stack of nested paper cups having a permanent seal at one end and a removable seal at the other end and means for functioning said package as a dispenser for said cups, whereby the lowermost cup will protrude therefrom upon the removal of said latter seal, said means coöperating with successive cups to permit of their individual separation from the stack.

7. The combination of a tube and a stack of nested paper cups contained therewithin, means for sealing both ends of said tube to form an original package to protect the cups against contamination and means in proximity to one end of the tube and adapted to coöperate with the stack of cups upon the removal of the adjacent seal to permit of the individual withdrawal of the cups, each remaining terminal cup effecting a temporary seal for the container.

8. The combination with a stack of nested paper cups and a tubular container therefor, provided with a permanent closure at one end, and a removable closure at its other end, said removable closure being sealed to said tube to provide an original package for the cups, and means formed on the interior of said container to coöperate with said cups and support the same upon the removal of said latter closure to permit the successive withdrawal of said cups from said container, a portion of the terminal cup being flexed to disengage it from said means, whereby the next succeeding cup will be engaged by said means to temporarily seal the container and support the stack therein.

9. In combination with a stack of nested paper cups, a tubular container therefor, having a permanent closure at one end and a removable closure at its other end, said removable closure being hermetically sealed to said container to form an original package for the cups, and means adjacent to said latter end to support the stack of cups and to permit the withdrawal of the terminal cup from the stack when the removable closure has been detached from the container.

10. The combination with a stack of nested cup-like articles, of a container, forming an original package of the articles, having a permanent closure at one end and a removable closure at its other end, and means adjacent the latter end to support the stack and permit withdrawal of the terminal article when the removable closure has been detached from the container.

In witness whereof I have hereunto set my hand in the presence of two subscribing witnesses.

LAWRENCE W. LUELLEN.

Witnesses:

CHAS. LYON RUSSELL,

WM. C. DUNN.