

L. W. LUELLEN.
DISPENSING DEVICE.
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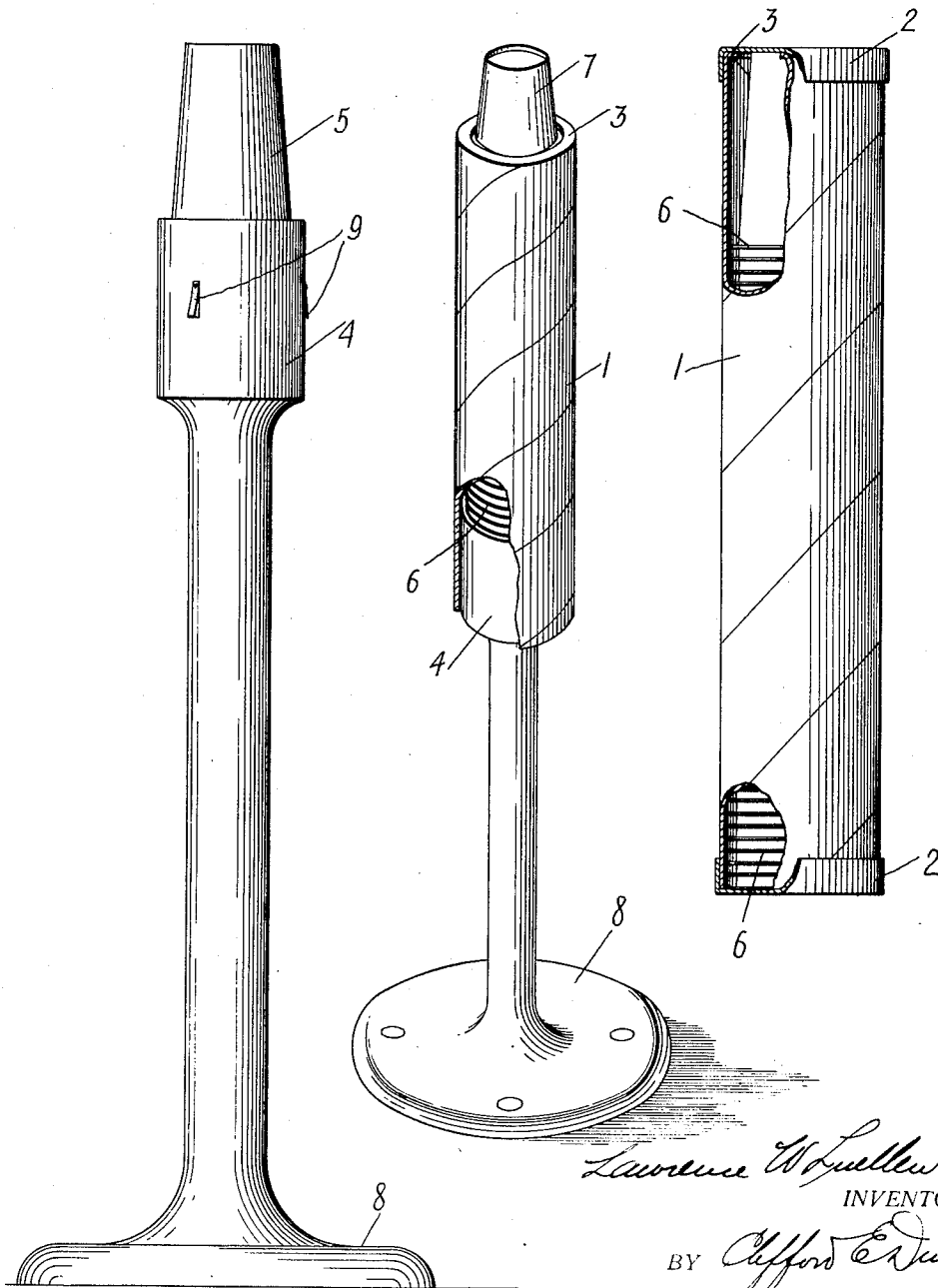
1,365,516.

Patented Jan. 11, 1921.

FIG. 3

FIG. 2

FIG. 1



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DISPENSING DEVICE.

1,365,516.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, LAWRENCE W. LUELLEN, a citizen of the United States, residing at Mountain Lakes, county of Morris, and State of New Jersey, have invented certain new and useful Improvements in Dispensing Devices, of which the following, taken in connection with the accompanying sheet of drawings, is a full, clear, and concise description.

This invention relates to dispensing devices generally, although the illustrated and described embodiment thereof has by preference been shown in connection with flanged paper drinking cups, which are intended to be used once and then discarded.

One of the objects of the invention is to provide a simple and inexpensive means for handling paper drinking cups in such a way as to maintain them in sanitary condition, free from dust and contaminating substances.

A further object of the invention is to provide a support adapted to cooperate with a carton, designed to be used as an original package for the handling and transportation of receptacles of the described character, whereby the container forms part of the dispenser upon the removal of the end caps, the tubular part of the package being placed over the support, causing the contained receptacles to be successively presented in delivery position.

In the accompanying drawings, in which I have illustrated one preferable embodiment of my invention,

Figure 1 illustrates an original container for paper drinking cups, the same being shown in the form of an original package, that is, a package in which the cups are packed for shipment.

Fig. 2 illustrates in perspective the container shown in Fig. 1, cooperating with a supporting base, this combination constituting a new and useful form of dispensing device.

Fig. 3 is an enlarged view in side elevation of the supporting base used in connection with the illustrated embodiment shown in Fig. 2.

The container 1 for the cups serves the purpose of an original package as illustrated in Fig. 1, the cups being retained entirely within the container by the removable end

caps 2. For the sake of cheapness, the container 1 and the end caps 2 may be made of paper or straw-board, or the like.

One end of the container is provided with an inwardly directed flange 3, providing a contracted opening through which the cups may be projected into delivery position, as shown in Fig. 2. The opposite end of the container is unobstructed, serving as the filling end of the same. The diameter of the container is greater than the maximum diameter of the cups, while the contracted delivery opening is of less diameter than the maximum diameter of the cups, so that the flanges of the cup cooperate with the container in a manner thought to be clearly understood.

To support the container 1 in vertical position, in order to function the same as a dispenser, I employ a support 4, which is of slightly less diameter than the interior diameter of the container, so that the same might be received therewithin. This support is preferably provided with a coniform extension 5, over which the bottom cup of the stack fits and by reason of the stacked relation of the cups forms a substantial supporting means for maintaining them in upright alinement. In practice, when the package of cups is to be used, the end caps 2 are removed, and the cups and container are then placed over the support 4 with the contracted opening at the top. The weight of the container will then cause the same to descend until the flange 3 engages the upper surface of the flange 6 of the terminal cup, thus presenting the terminal cup into delivery position to be grasped and removed by the hand of the user.

The supporting base 4 being received within the filling opening of the container forms not only a support for the cups, but an alining means for the container as well. The base 4 is provided with a stand 8, serving as a convenient means of attachment to a table or the like. It will be understood that upon the removal of the terminal cup, which is done by a slight flexure of the rim portion thereof, the container will descend until the rim 3 contacts with the succeeding cup which will then assume the position of the terminal cup in position for ready removal. In this manner, the cups may be

individually and successively removed from the container. It will be understood that the supporting base 4 is sufficiently long to permit the required telescopic movement of the base with respect to the container to effect the presentation of the last or final cup of the stack into delivery position.

It will be understood that the respective diameters of the cups, container and base are such as to permit freedom of movement in the operation of the dispenser.

Where desirable, I may, however, in order to prevent accidental dislodgment of the container 1 from the supporting base, upon the withdrawal of the top cup, provide a plurality of spring fingers 9, as shown in Fig. 3, these being mounted upon the base with their free ends bearing upon the inner circumferential surface of the container. The fingers bear with sufficient spring pressure against the container to hold it in place, when the terminal cup is removed. In other words, the spring pressure is greater than the rigidity of the cup flange, so that the cup flange will give when the cup is removed without raising the container.

While I have illustrated a preferable embodiment of my invention, I have done so by way of example only, as many modifications and changes may be made therein without departing from the spirit and scope of my invention as defined by the following claims.

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

1. In combination, a movable cup container having a delivery opening, and a stationary support for the cups in said container and over which the cup container may be slipped to correspondingly move the container over the cups to cause the cups to be presented successively at the delivery opening of the container.

2. In combination with an inverted stack of receptacles, a covering for said receptacles having an apertured top, and a support for the receptacles to hold the same stationary at all times with the terminal receptacle projecting through the apertured top of the said covering, in position to be grasped by the hand of the user.

3. In combination with a stack of nested flanged receptacles, of a stationary support adapted to hold said receptacles stationary and in inverted position at all times, a covering for said receptacles supported in position by the flanges of the terminal receptacle, whereby said receptacles may be successively and individually removed therefrom.

4. In combination with an inverted stack of flanged receptacles, a stationary support therefor, a tube-like covering adapted to encircle the stack of cups and support, and

provided with a delivery opening from which the terminal cup of the stack projects with the flange thereof retained within the tube, whereby the said terminal cup may be readily removed by a slight flexure of the flanged portion thereof.

5. A dispensing device for nested flanged receptacles, comprising means for supporting them in inverted position, a covering therefor, suspended from the receptacles and having a delivery opening at the upper end of less diameter than the maximum diameter of the receptacles, whereby said receptacles may be successively and individually removed from the covering.

6. A dispensing device for superimposed flanged paper cups, a support conforming to the inner contour of the lowermost cup and adapted to support the stack in inverted position, of a covering having a delivery opening at its upper end adapted to surround the cups and support, said delivery opening being of less diameter than the maximum diameter of the cups, whereby the cups may be individually and successively removed therefrom.

7. In combination with a container for flanged paper receptacles in the form of a nested stack, having a filling opening and a delivery opening, closed by removable caps, of a stand or support adapted to be received within the filling opening of the container upon the removal of the covering cap, whereby the paper terminal cup of a stack will be projected through the delivery opening into delivery position upon the removal of its covering cap.

8. A dispensing device for flanged paper drinking cups, comprising a base adapted to support said cups in nested inverted position, of a container of larger diameter than the base adapted to fit over the base and having a delivery opening at its upper end through which the terminal cups normally project, said delivery opening being of less diameter than the maximum diameter of the cups, whereby the cups may be successively presented to delivery position where they may be grasped for removal therefrom.

9. A dispensing device for nested paper cups, comprising a container, having a delivery opening at its upper end, and a filling opening at its lower end, said filling opening for receiving a cup support adapted to cooperate with the stack of cups in such a manner that one or more cups will be projected from the container, so as to be individually grasped for removal therefrom.

10. A dispensing device for nested paper cups, comprising a vertically arranged container having a filling opening at the lower extremity, of greater diameter than the maximum diameter of the cups, and a delivery opening at the upper end, of less diameter than the maximum diameter of the cups and

a support, of less diameter than the filling opening, telescopically arranged with respect to said container, whereby the successive removal of the cups from the container will cause the container to descend over the support by its own weight.

11. A dispensing device for a stack of nested flanged paper cups, of a container therefor, having a filling opening at one end, and a delivery opening at the other end, means provided at the delivery opening for coöperation with the flange of the terminal cup for retaining the container in position and a support for the cups adapted to be received within the filling opening of the container, whereby a cup may be readily removed from the container and the remaining cups be maintained in sanitary condition.

12. In combination, a receptacle container provided with a delivery opening at its upper end, of less diameter than the maximum diameter of the contained receptacles, and means for automatically causing said receptacles to be successively presented at the delivery opening upon the removal of the terminal cup.

13. In combination, a cup container having a delivery opening and a stationary support therefor, a cup container having movement relatively to the support and the support telescopically coöperating with the container to present the receptacles successively at the delivery opening of the container.

14. A dispensing device for nested paper cups, comprising a container having a delivery opening and a filling opening, a cup support separate therefrom and extending

into the filling opening and adapted to co-operate with the stack of cups in such a manner that one or more cups will be projected thereby from the container so as to be individually grasped for removal therefrom.

15. A dispensing device for nested paper cups, comprising a vertically arranged container having a filling opening, and a delivery opening of less diameter than the maximum diameter of the cups and a support of less diameter than the filling opening, telescopically arranged with respect to the container, whereby the successive removal of the cups from the container will cause the container to descend over the support by its own weight.

16. Cup dispensing means comprising a cup container inclosing a stack of cups, means adapted to be projected into one end of the container to immovably support the stack of cups with the opposite terminal cup projected from the container, the cup container being adapted to be shifted lengthwise of said supporting means and over said removable stack to expose successive cups.

17. Cup dispensing means comprising a cup container inclosing a stack of inverted cups and fixed means adapted to engage the bottom of the stack of cups to support the same with the container, the latter having a sustaining engagement with the stack of cups, and the container being movable longitudinally of the stack of cups to slide downwardly over the supporting means in progressively projecting cups from the top of the container.

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