D. F. CURTIN.

DISPENSER FOR PAPER CUP BLANKS.

APPLICATION FILED JULY 23, 1917.

**1,337,392.** Patented Apr. 20, 1920.

Fig. 1.

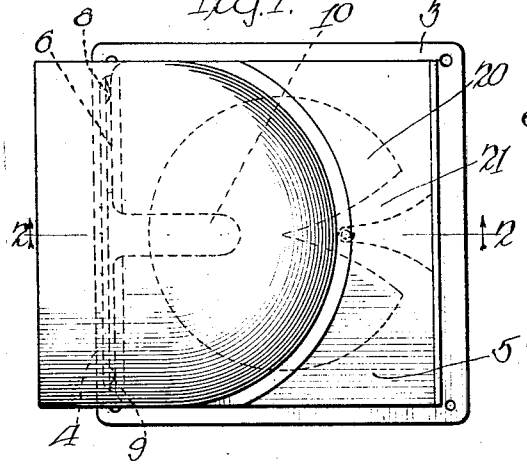



Fig. 2.

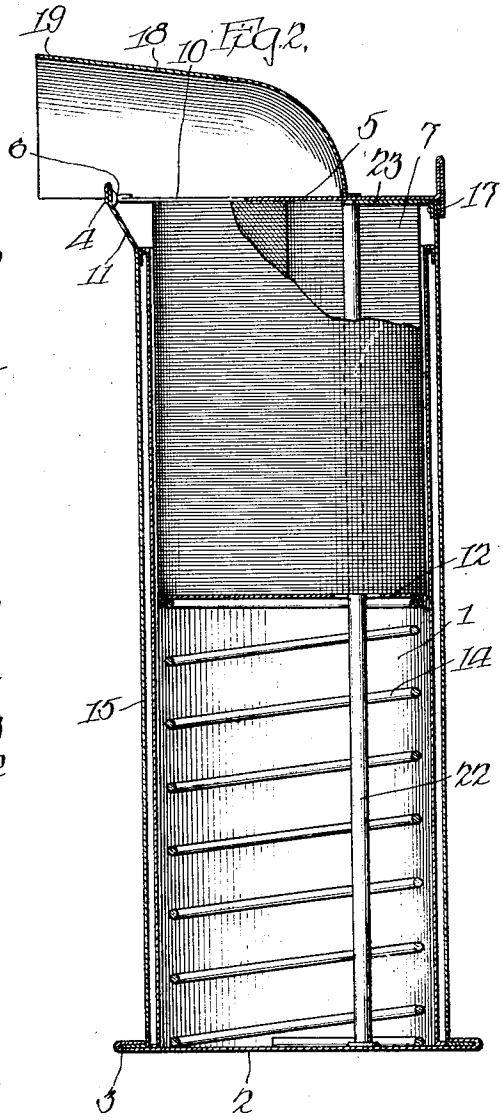



Fig. 3.

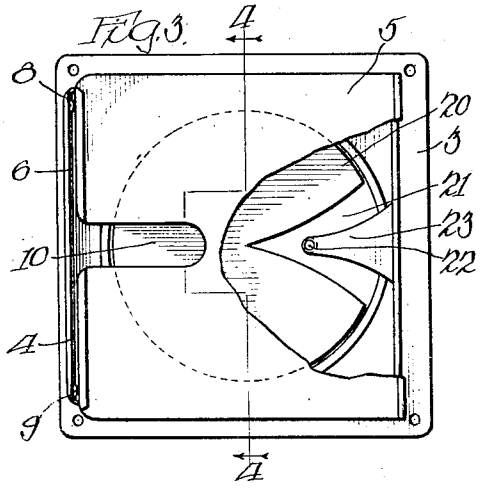
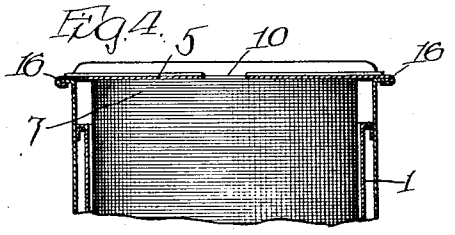



Fig. 4.




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# UNITED STATES PATENT OFFICE.

DAVID F. CURTIN, OF CHICAGO, ILLINOIS.

## DISPENSER FOR PAPER-CUP BLANKS.

1,337,392. Specification of Letters Patent. Patented Apr. 20, 1920.

Application filed July 23, 1917. Serial No. 182,200.

*To all whom it may concern:*

Be it known that I, DAVID F. CURTIN, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Dispensers for Paper-Cup Blanks, of which the following is a description.

My invention relates to mechanism for storing a quantity of paper cup blanks and protecting the same from dirt, or other contamination and delivering the blanks one by one when desired.

The object of my invention is to provide a simple, cheap, reliable and convenient device of the kind described wherein the blanks are kept clean and so inclosed that they cannot be touched or handled except by withdrawing them one by one.

To this end my invention consists in the novel construction, arrangement and combination of parts herein shown and described, and more particularly pointed out in the claims.

In the accompanying drawings wherein like or similar reference characters indicate like or corresponding parts:

Figure 1 is a top plan view of my device.

Fig. 2 is a section taken substantially on line 2—2 of Fig. 1.

Fig. 3 is a plan view of a slightly modified form of my device.

Fig. 4 is a fragmentary sectional view of the outlet end of my device taken substantially on line 4—4 of Fig. 3.

In the form shown in the drawings my improved dispenser comprises a tubular barrel 1 formed of any suitable material such as steel, brass, fiber or the like, the cross section preferably corresponding to the form of the blanks to be stored and of suitable size to permit of the free longitudinal movement of the blanks therein. The barrel 1 is preferably closed at one end as at 2 and provided with lateral projections 3 at the closed end to serve as a base to maintain the barrel in a substantially vertical position so that the blanks positioned in the barrel will each lie in a substantially horizontal position and have no tendency to rub against the side of the barrel when moving longitudinally thereof as when filling my dispenser or withdrawing the blanks therefrom. A substantially straight lip 4 is provided at the open end of the barrel 1 the length of said lip being slightly greater than the corresponding dimension of the barrel 1 and a closure 5 is provided for the open end of the barrel having a straight side adapted to coöperate with the inner margin of the lip 4 to form a narrow slit like outlet opening 6 through which the blanks 7 within the barrel may be extracted. Suitable projections as 8 and 9 at the respective ends of the lip 4 are provided to limit the movement of the closure 5 toward the lip thus determining the width of the outlet opening 6. In the preferred form a slot 10 is provided in the closure 5 at substantially right angles, to, and at the center of, the outlet opening 6 of suitable width to enable anyone desiring to extract a blank from the dispenser to touch the uppermost blank in the barrel with the end of the finger and thereby draw the blank toward the lip 4 so that the edge of the blank will engage the inclined part 11 of the lip and be bent upward through the outlet opening or slot 6 permitting the blank to be grasped between the thumb and finger as it emerges from the slot.

Any suitable means may be employed to maintain the blanks 7 at the upper or outlet end of the barrel 1. As shown a carrier 12 of suitable form and construction to receive and support a plurality of blanks in a stack upon its upper surface is provided in the barrel 1 and a spring 14 or other suitable means is provided to maintain the carrier 12 in position to hold the topmost blanks upon it substantially in contact with the closure 5 and gradually raise the carrier as the blanks are removed to maintain the topmost blank remaining in the barrel in the proper position to be removed.

In the form shown the spring 14 is so proportioned that the weight of the blanks will depress the carrier 12 just sufficient to maintain the blanks as described.

In the preferred construction a casing 15 is provided extending from the base 2 upward to a point slightly beyond the open end of the barrel 1 and the closure 5 is mounted upon the top of the casing and arranged to slide transversely thereof longitudinally of the slot 10, the sides 16 and rear end 17 of the closure extending downward and coöperating with the sides of the

casing to form a tight joint and exclude any fluid, dust or other foreign substance. Suitable means are also provided to cover the slot 10 and outlet opening 6. In the form shown a curved hood 18 is rigidly mounted upon the closure 5 and projects as at 19 sufficiently beyond the outlet opening 6 to effectually guard the same, while the central portion curves upward sufficiently to enable the hand to be readily inserted and afford convenient access to the slot 10 and outlet opening 6 for withdrawing the blanks.

As shown my improved holder is designed for storing and dispensing the paper linings for the cups shown in my copending application for United States patent for a drinking cup. In this device the blank is circular as shown at 20 and provided with a radial slit or slot 21, and it is desirable that each of these blanks when withdrawn from the dispenser have the slot 21 in substantially the same position. For this purpose a rod 22 is provided in the barrel 1 rigidly secured to the bottom 2 at one end and at its upper end to a bracket 23 projecting inward from the rear wall of the casing 15. The bracket 23 is so formed that it will not interfere with the removal of the closure 5 and of such form that it will readily enter the slot 21 in the blanks and not interfere in inserting the blanks in or removing the same from the dispenser.

In the form shown in Figs. 3 and 4 the several parts are constructed and arranged in all respects substantially the same as shown in Figs. 1 and 2 except that in this form, which is intended for use in small inclosed spaces such as in railway coaches or the like or in other protected inclosures or buildings, the hood 18 is entirely omitted. In each form the operation is the same and if the underside of the blank is employed for the interior side of the cup or other receptacle the small amount of dust reaching the blank at the slot 10 is not objectionable.

While I have shown my improved dispenser as employed for storing and dispensing blanks for drinking cups which are circular in general form it is obvious that blanks of any shape and used for any purpose may be handled as readily by constructing the barrel and associated parts to properly correspond with the desired shape of the blank to be handled and that various other slight or immaterial modifications of my device may be made without departing from the spirit of my invention.

What I claim as new and desire to secure by Letters Patent is:

1. A device of the kind described, comprising a tubular barrel open at one end, a closure at the open end of said barrel, an outlet opening being provided along one margin of said closure and a slot formed in said closure extending transversely of said outlet opening toward the center of said barrel, in combination with a carrier positioned in said barrel and arranged to move longitudinally thereof and resilient means tending to normally maintain said carrier at the open end of said barrel, and fixed means positioned within said barrel adapted to engage said articles for preventing rotation of said articles in said barrel.

2. A device of the kind described, comprising a tubular barrel open at one end, a closure at the open end of said barrel, an outlet opening being provided along one margin of said closure and a slot formed in said closure extending transversely of said outlet opening toward the center of said barrel, in combination with a carrier positioned in said barrel and arranged to move longitudinally thereof, resilient means tending to normally maintain said carrier at the open end of said barrel, and a casing inclosing said barrel and provided with means for supporting said barrel in position.

3. A device of the kind described, comprising a tubular barrel open at one end, a transversely movable closure at the open end of said barrel, an outlet opening being provided along one end of said closure and a slot formed in said closure extending transversely of said outlet opening toward the center of said barrel, in combination with a carrier positioned in said barrel and arranged to move longitudinally thereof, resilient means tending to normally maintain said carrier at the open end of said barrel, and means extending longitudinally of said barrel for preventing the rotation of articles positioned in said barrel.

4. A device of the kind described, comprising a tubular barrel open at one end, a closure at the open end of said barrel, an outlet opening being provided along one margin of said closure and a slot formed in said closure extending transversely of said outlet opening toward the center of said barrel, and a hood spaced from said closure at said slot and rigidly secured to said closure, in combination with a carrier positioned in said barrel and arranged to move longitudinally thereof and resilient means tending to normally maintain said carrier at the open end of said barrel.

5. A device of the kind described, comprising a tubular barrel open at one end, a transversely movable closure at the open end of said barrel, an outlet opening being provided along one end of said closure and a slot formed in said closure extending transversely of said outlet opening toward the center of said barrel, in combination with a carrier positioned in said barrel and arranged to move longitudinally thereof, resilient means tending to normally maintain said carrier at the open end of said barrel,

and a casing inclosing said barrel and provided with means for supporting said barrel in position.

6. A device of the kind described, comprising a tubular barrel open at one end, a transversely movable closure at the open end of said barrel, an outlet opening being provided along one end of said closure and a slot formed in said closure extending transversely of said outlet opening toward the center of said barrel and a hood spaced from said closure at said slot and rigidly secured to said closure, in combination with a carrier positioned in said barrel and arranged to move longitudinally thereof, resilient means tending to normally maintain said carrier at the open end of said barrel, and a casing inclosing said barrel and provided with means for supporting said barrel in position.

7. A device of the kind described, comprising a tubular barrel open at one end, a laterally projecting lip and a transversely movable closure at the open end of said barrel arranged to coöperate with said lip to form an outlet opening along the end of said closure and a slot formed in said closure extending transversely of said outlet opening toward the center of said barrel and a hood spaced from said closure at said slot and rigidly secured to said closure, in combination with a carrier positioned in said barrel and arranged to move longitudinally thereof and resilient means tending to normally maintain said carrier at the open end of said barrel.

In testimony whereof, I have hereunto signed my name in the presence of two subscribing witnesses.

DAVID F. CURTIN.

Witnesses:
BLANCHE CHALMERS,
BURTON U. HILLS.