No. 684,002. Patented Oct. 8, 1901.

O. E. SORG.

CUP DELIVERING ATTACHMENT FOR PUBLIC DRINKING PLACES.

(Application filed Dec. 22, 1900.)

(No Model.) 2 Sheets—Sheet 1.

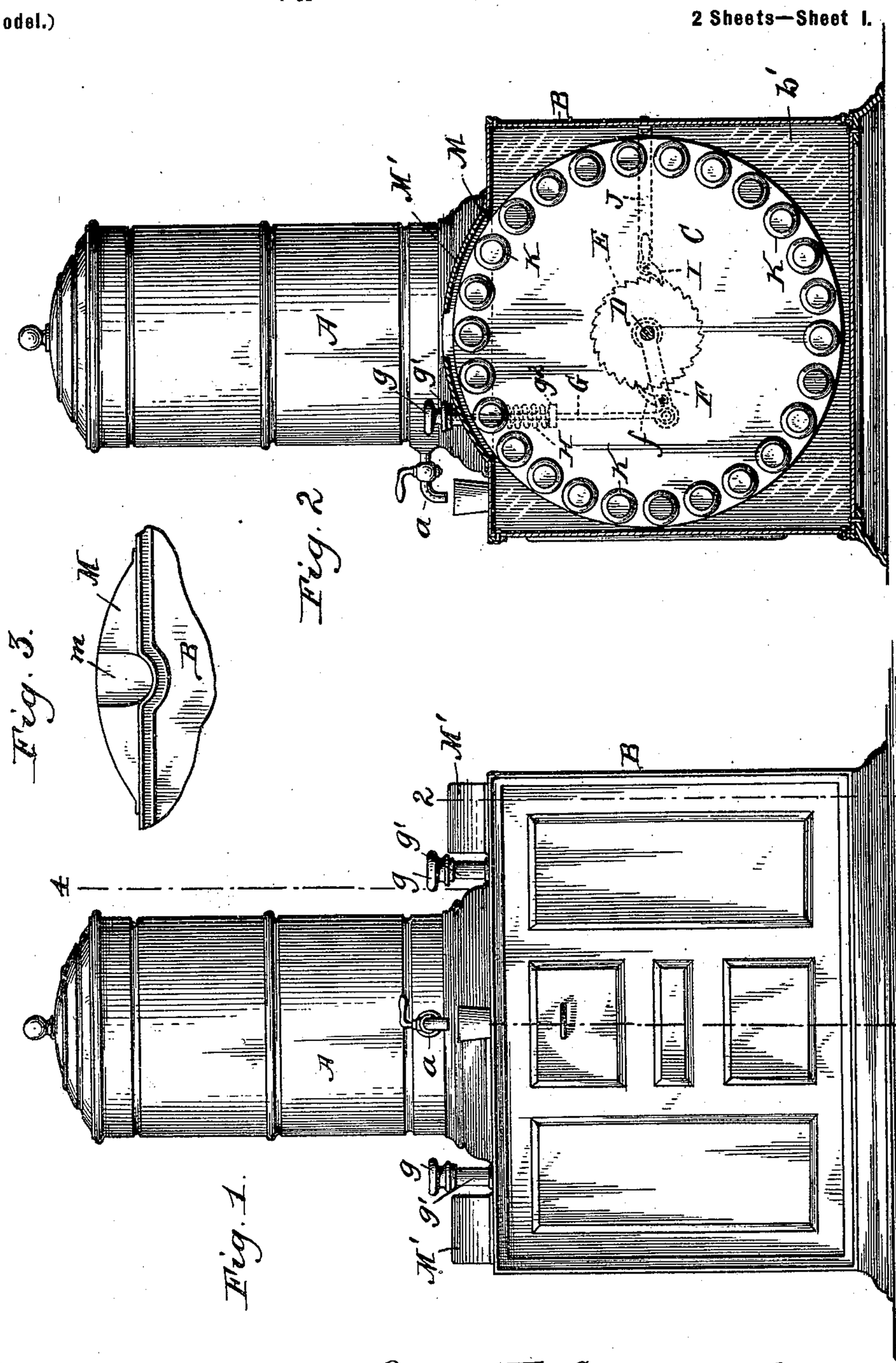

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Fig. 4.

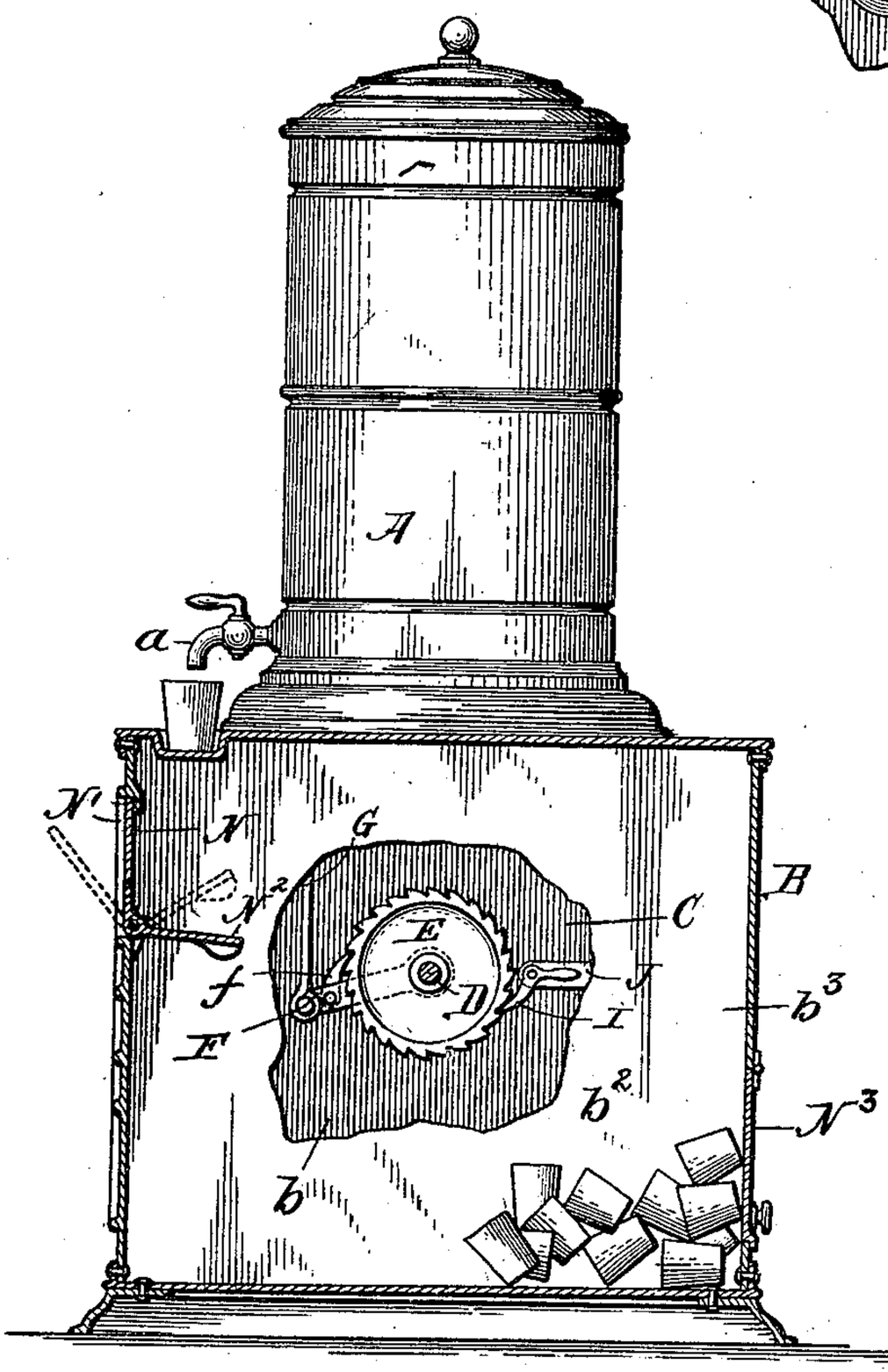


Fig. 6.

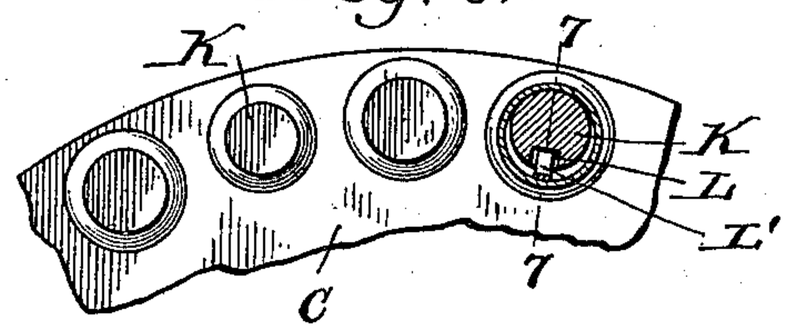


Fig. 7.

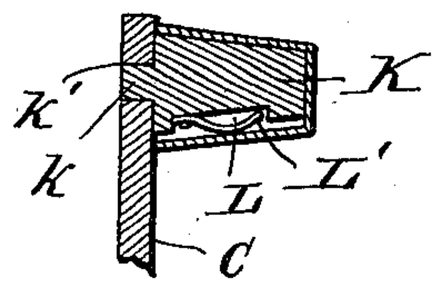
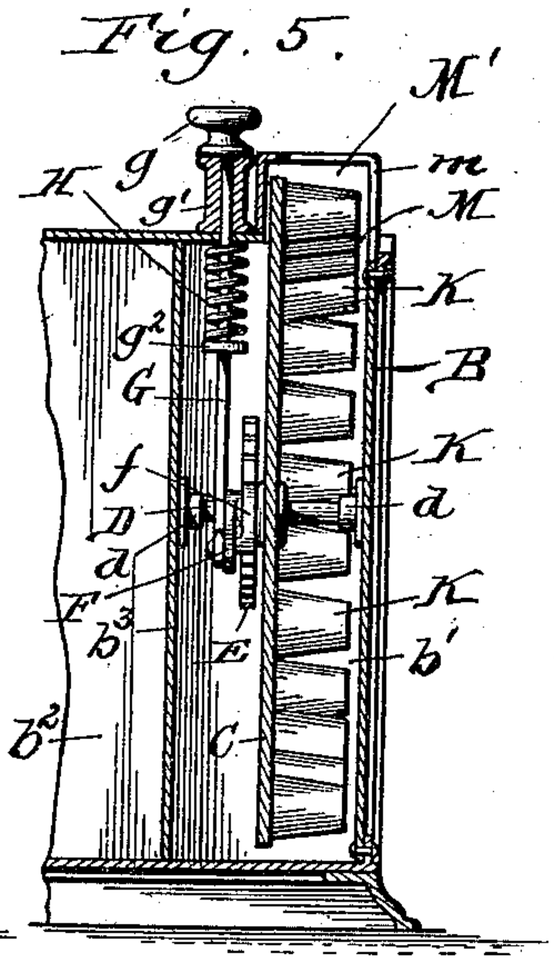


Fig. 5.



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UNITED STATES PATENT OFFICE.

OSCAR E. SORG, OF BUFFALO, NEW YORK, ASSIGNOR OF NINE-TENTHS TO HENRY KOONS, OF SAME PLACE.

CUP-DELIVERING ATTACHMENT FOR PUBLIC DRINKING-PLACES.

SPECIFICATION forming part of Letters Patent No. 684,002, dated October 8, 1901.

Application filed December 22, 1900. Serial No. 40,732. (No model.)

To all whom it may concern:

Be it known that I, OSCAR E. SORG, a citizen of the United States, residing at Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements in Cup-Delivering Attachments for Public Drinking-Places, of which the following is a specification.

This invention relates to an attachment to or a device for use with drinking-fountains or water-supplies for drinking purposes, such as are generally provided in public places—as, for instance, railway-stations, parks, convention-halls, and the like—whereby a cup is provided for each individual.

The object of my invention is to construct a simple and durable device whereby cups can be stored in large quantities and whereby through the operation of mechanism provided therefor a cup will be delivered to each individual, who may discard the same after using, thus preventing the spread of contagious diseases, which are frequently communicated by successive use of the same cup, which may have been previously used by some other person afflicted with a disease of the mouth or throat, this being a most prolific source of disease. This cup-delivering device is of particular advantage in connection with coin-controlled liquid-vending machines containing mineral water, sarsaparilla, &c., such as are in general use at all places where a large number of people congregate. Such machines have no provisions for cleansing a cup, as it is almost impossible in most instances to provide running water.

The cups used in my device are manufactured of cardboard or any other light material which may be suitable therefor, and they may be made in any size or form, depending largely on their use and the liquid which they are intended to receive.

A further object is to so construct this machine that the cups will be successively brought to a point where they are easily accessible and provisions made whereby they may be quickly and conveniently taken for use.

The invention consists in the novel construction and combination of parts, as will be hereinafter fully set forth, and pointed out in the claims.

Referring now to the drawings, which consist of two sheets, Figure 1 is a front elevation of my device shown in connection with a water-supply, such as one may find in a public place. Fig. 2 is a vertical section taken on line 2 2, Fig. 1. Fig. 3 is a side elevation of that portion of the casing to which the cups are successively brought to view and from which they are taken for use. Fig. 4 is a vertical section taken on line 4 4, Fig. 1. Fig. 5 is a central vertical section through one of the cup-holding disks and its inclosure, the operating mechanism therefor being shown in elevation. Fig. 6 is a face view of a portion of one of the cup-holding disks, one of the cups and the retaining-plug to which it is held being shown in section. Fig. 7 is a vertical section taken on line 7 7, Fig. 6.

Like letters of reference refer to like parts in the several figures.

In the drawings I have shown a reservoir A, having a faucet *a*, this being one of many types of drinking fountains or reservoirs found in public places and for use with which my apparatus is particularly designed. As shown, this reservoir is supported on my device; but, if desired, it may be supported otherwise and my device placed conveniently near the same.

The casing B of my cup-holding device may be constructed of any suitable material, it being divided into three compartments b b' b^2 by partitions b^3. In the drawings two cup-holding compartments are shown; but I do not wish to confine myself to this arrangement, as one or more than two may be as readily used, and therefore in describing the same I will refer to one only, the second being an exact duplicate thereof.

The cup-holding disk C is mounted on a shaft D, journaled in bearings *d*, secured to the casing and the partition b^3. E is a ratchet-wheel which is secured to said shaft, and F a ratchet-arm loosely mounted on the shaft in close proximity to said ratchet-wheel. This arm has a pawl *f* pivoted thereon, which is in constant engagement with said ratchet-wheel.

G represents a vertically-movable rod which is pivotally connected to the ratchet-arm F and which extends up through the casing B, it having a handle *g*, which rests on a boss or projection *g'*, secured to the top of the casing.

A collar g^2 is secured to this rod about midway between its ends, and a spiral spring H surrounds said rod and bears with its lower end against said collar and with its upper end against the casing B, its purpose being to keep the rod G in its lowered position.

A detent-pawl I is pivotally held on a bracket J, secured to the casing, said pawl serving to prevent retrograde movement of the disk C.

Referring now to the manner of holding the cups on the rotatable disk, I provide laterally-disposed and tapering plugs or pegs K, which I secure to the face of the disk near the periphery thereof. The plugs are provided with reduced portions or tenons k at their inner ends, which enter openings or mortises k' in the disk. In some instances, where no revenue is derived from the use of the cups, they must of necessity be cheap, and owing to this accuracy in size cannot be expected. Therefore each plug is provided with a longitudinal groove L, in which retaining-springs L' are secured, their purpose being to bear against the inner side of the cups to assure their being held to the plugs. The rotatable disk is positioned so as to bring the outer ends of the plugs in close proximity to one wall of the compartment, thereby preventing the cups from becoming dislodged from the plugs except at the delivery-opening, where they are taken for use.

M represents an opening in the top of the casing, through which a portion of the disk C projects. A hood M' is situated over this opening and incloses the disk C except at a point where a delivery-opening m is formed, through which the cups are successively brought to view and from which they are to be taken for use.

The capacity of the disk C may be augmented by nesting the cups and placing two or more on each plug, it then being unnecessary to operate the device until all the cups are taken from the plug in view.

On pulling the rod G, the pawl f being engaged with one tooth of the ratchet-wheel causes it to revolve a distance equal to the distance between the centers of two adjacent cups. During this movement the detent-pawl I rides over the ratchet and on releasing the rod G engages the next tooth above and holds the disk from retrograde movement, while the pawl f rides over the ratchet-wheel and engages the next tooth below. It is apparent that by this means only one cup can be taken from the disk at a time.

The chamber b^2 is provided for the reception of used cups, and it is provided with an opening N, having a door N', pivoted to swing down, said door having an inwardly-projecting extension N^2, which on opening the door N' partly closes the opening N, thus preventing the withdrawal of the discarded cups contained therein, yet permitting a cup to be deposited by placing it in the pocket formed by the door N' and extension N^2, said cup dropping from the extension N^2, which is slightly inclined when the door N' is closed. For convenience in emptying the compartment b^2 a door N^3 is secured to the rear side of the casing B.

Having thus described my invention, what I claim as new is—

1. The combination with the casing having an opening therein, of a rotatable disk mounted in said casing, means for yieldingly holding the cups on said disk, and operating mechanism for rotating said disk whereby said cups are brought to said opening successively, substantially as set forth.

2. The combination with the casing having an opening therein, of a rotatable disk mounted in said casing, laterally-extending plugs secured to said disk and having means for yieldingly holding the cups thereon, and operating mechanism for rotating said disk whereby said plugs are brought to said opening successively, substantially as set forth.

3. The combination with the casing having an opening therein, of a rotatable disk, laterally-extending plugs secured to said disk, each plug having a groove formed therein, retaining-springs located in said grooves and adapted to hold the cups on said plugs, and operating mechanism for rotating said disk whereby said plugs are successively brought to said opening, substantially as set forth.

4. The combination with the casing having an opening therein, of a rotatable disk mounted in said casing, laterally-disposed plugs secured to said disk whereon the cups are held, a ratchet-wheel secured to said disk, a ratchet-arm, a pawl carried on said ratchet-arm and adapted for engagement with said ratchet-wheel, an operating-rod secured to said ratchet-arm and extending out through the casing, said rod having a collar formed thereon, a spring surrounding said rod and bearing with one end against the casing and with its other end against said collar, and a detent-pawl held in engagement with said ratchet-wheel, substantially as set forth.

OSCAR E. SORG.

In presence of—
ANDREW J. VAUGHT,
EMIL NEUHART.