March 3, 1953 H. CAREW ET AL 2,630,361

HOLDER-DISPENSER FOR PAPER CUPS

Filed May 11, 1950 2 SHEETS—SHEET 1

Fig. 1

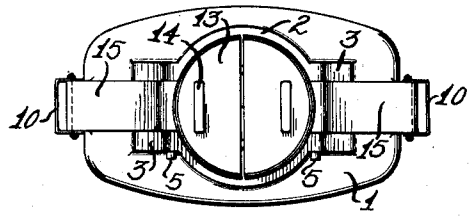


Fig. 3

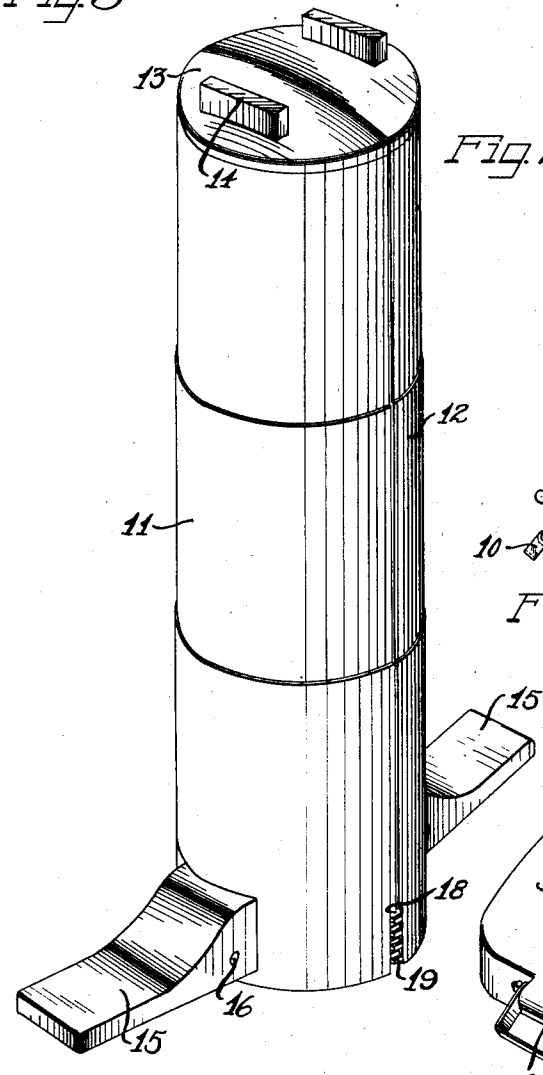


Fig. 2

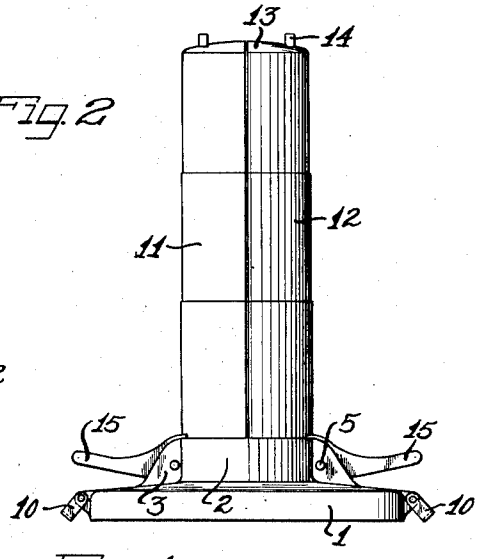
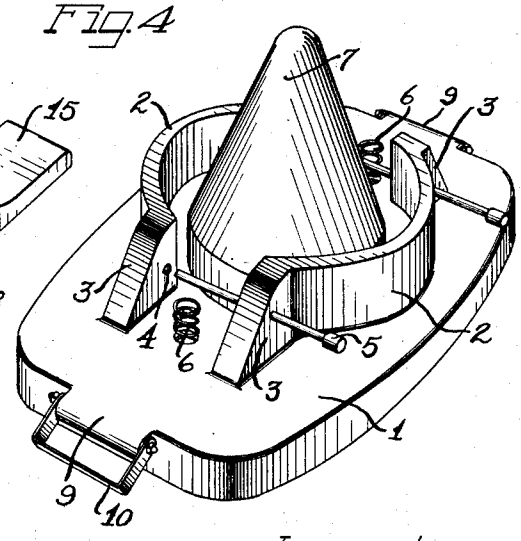


Fig. 4



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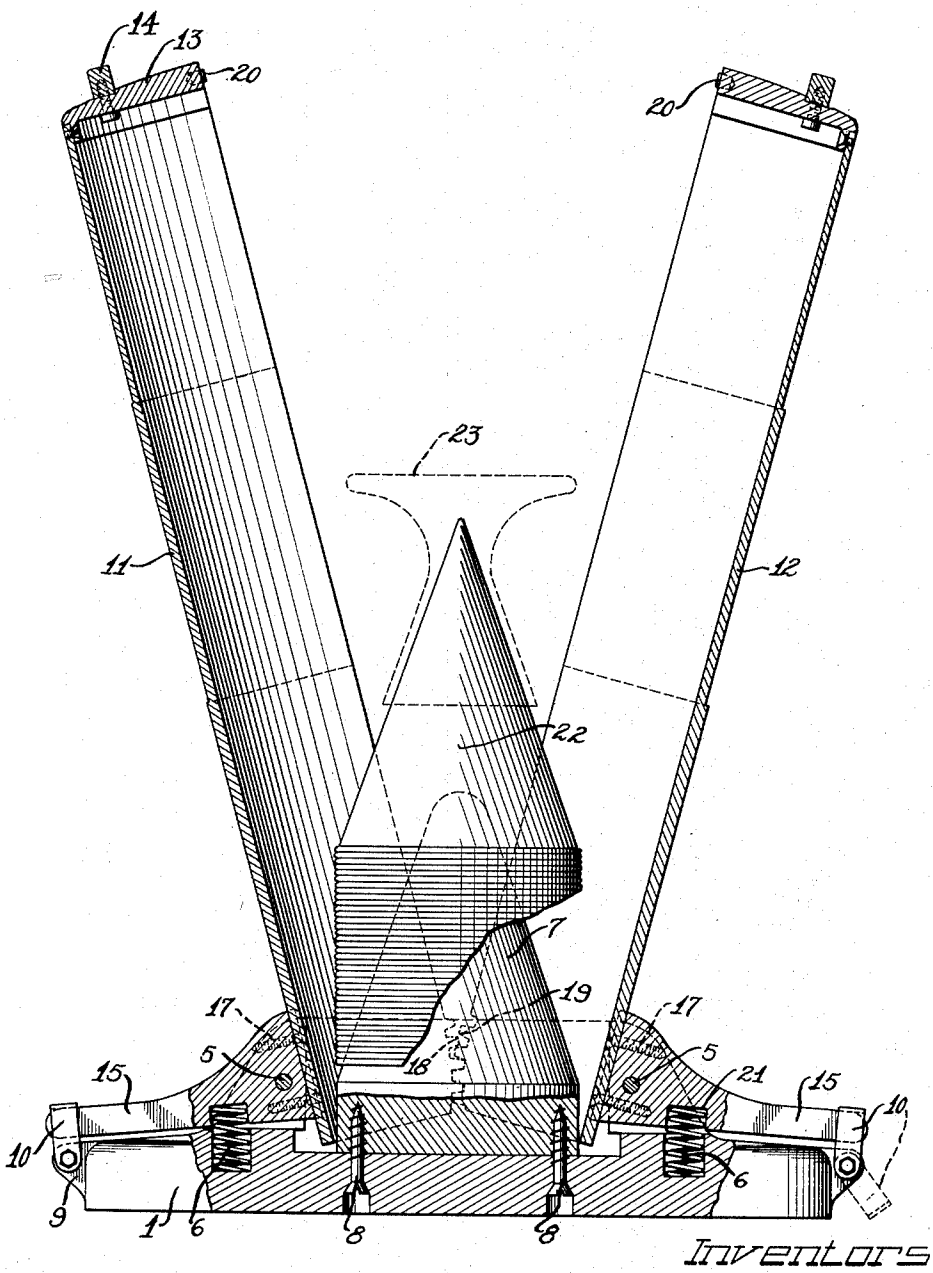
By the Firm of Charles W. Hills Attys

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Fig. 5



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HOLDER-DISPENSER FOR PAPER CUPS

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2 Claims. (Cl. 312—43)

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This invention relates to improvements in a holder-dispenser for paper cups, and more particularly to a device for holding a stack of nested paper cups from which device the cups may be readily removed one or more at a time, the invention being highly desirable for use in soda fountains and similar locations, as well as in offices, on executive desks, etc., although the invention may have still other uses and purposes as will be apparent to one skilled in the art.

In the past, many and various types of dispensers and holders for a supply of paper cups have been developed for both office and soda fountain usage. Most frequently such holders embodied a casing to enclose a stack of cups in nested relationship, with the lowermost cups protruding out of the casing where they might be grasped by the hand and pulled one at a time from the dispenser. In soda fountain work, obviously it is not desirable for the hands of the operator to contact a paper cup in which a soda or soft drink is dispensed, and it is difficult frequently to utilize a unit cup holder with gripping means and withdraw a cup from a dispenser solely by manipulation of the holder without any manual aid or hand contact with the cup itself. Sanitary regulations in many localities require that a dispenser cover the cups, especially during non-rush hours, where the cups merely sit on the back bar or counter in position to collect dust and dirt. In view of the difficulty in providing speedy service with dispensers of the character formerly known, it became the custom to merely place an inverted stack of cups in an open box-like formation or openly upon the back bar or counter, and utilize the unit holder alone to withdraw the uppermost cup from such a stack. The sanitary regulations aforementioned, however, condemn such practice. Further, is is desirable at times to cleanse the dispenser-holder, and heretofore that could only be accomplished with extreme difficulty, if it were at all possible.

With the foregoing in mind, it is an important object of the instant invention to provide a paper cup supply holder or dispenser, which when not in use completely encloses all of the cups therein.

Another object of the invention is the provision of a paper cup dispenser arranged to contain an inverted stack of nested paper cups, and which dispenser itself opens up to permit ready access to the cups, while the stack of cups remains erect and immobile.

Another object of this invention is the provision of a dispenser or supply holder for a stack of paper cups, which holder upon very easy pressure will split apart, each side of the holder pivoting outwardly, to leave the stack of cups erect and freely accessible.

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Still another feature of the invention resides in the provision of a dispenser for paper cups, which dispenser is divided in two halves, shell-like portions, which may be readily separated by a mild pressure applied at any of a plurality of different points.

It is also a feature of this invention to provide a dispenser for paper cups which readily splits apart upon the application of light pressure to expose the stack of cups in a freely accessible position, and which holder is provided with means to automatically close and completely cover the stack of cups upon release of the pressure.

Still a further object of the invention resides in the provision of a dispenser for a stack of paper cups, which dispenser comprises two separable halves which readily pivot outwardly at the bottom to expose the stack of cups, and which may be locked in open or outwardly pivoted position whenever desired.

It is still a further object of the invention to provide a dispenser-holder for a supply of paper cups, which holder may be readily and quickly dismantled for easy cleansing, and as facilely reassembled.

While some of the more salient features, characteristics and advantages of the instant invention have been above pointed out, others will become apparent from the following disclosures taken in conjunction with the accompanying drawings in which—

Figure 1 is a top plan view of a dispenser or supply holder for paper cups embodying principles of the instant invention;

Figure 2 is a side elevational view of the structure of Fig. 1;

Figure 3 is an enlarged pictorial view of the upper portion of the device removed from the base;

Figure 4 is an enlarged pictorial view of the base portion of the device alone; and

Figure 5 is an enlarged central vertical sectional view through the device with the casing in opened position, and indicating the operation of the device.

As shown on the drawings:

While the illustrated embodiment of the instant invention is shown with and to accommodate conical paper cups, it will readily be understood that the dispenser-holder may be utilized for the enclosing and dispensing of flat bottom or other type paper cups just as well. As

will be more fully apparent later herein, only one element of the holder need be changed in order to adapt the holder for a differently shaped cup.

The entire device, with the obvious exception of items such as springs, pins, and the like, may be molded or cast from a suitable thermosetting plastic, a light metal, or any other satisfactory material preferably a material that will tend to remain clean for a long interval of time, and which may readily be cleaned whenever soiled.

In the illustrated embodiment of the instant invention there is shown a base or platform 1 and preferably integral therewith and extending upwardly therefrom is a pair of confronting foundation or supporting members 2—2. As seen clearly in Fig. 4, these members are arcuate in character, but less than semi-circular in extent, each terminating in an outwardly extending lug 3 at each end thereof. Each lug 3 is provided with an aperture 4 therethrough to accommodate a headed slip pin 5, which pins not only function as pivot pins for the casing parts to be later described, but also maintain the entire device assembled.

Near each end thereof and between confronting lugs 3—3, the base is recessed to accommodate a compression spring 6, as best seen in Figs. 4 and 5.

A cup supporting plug 7 having in general the configuration of a cone is removably mounted on the base by any satisfactory means such as a pair of recessed screws 8—8 (Fig. 5). It will be noted especially from the showing in Fig. 4, that the cup supporting plug 7 is disposed centrally between the arcuate portions of the foundation members 2—2 and is spaced from these members to permit the casing to be slipped therebetween. Of course, being conical, the plug 7 is designed to support an inverted stack of nested conical paper cups. It will at once be apparent, however, that should some other shape of cup, such as a flat bottom cup for example, be desired, it is a simple expedient to remove the plug 7 and substitute another plug having a shape in conformity with the interior of the different type of cup to be supported. Thus, the same dispenser-holder may be utilized for a plurality of differently shaped cups, and a plurality of different sized cups, it being only necessary to utilize the properly shaped and properly sized plug 7 for any particular type of cups. This feature obviously adds greatly to the economy of manufacture.

Likewise, should a soda fountain proprietor desire to change over from one form of cups to another form of cups, he need not replace all the dispenser-holders he may have available, but need only substitute a differently shaped plug in the holders already on hand.

At each end thereof, the base 1 is provided with an outwardly extending ear 9 to which an anchoring loop or stirrup 10 is pivotally connected, these loops being for the purpose of retaining the casing of the holder in open position whenever desired.

The holder or container portion of the device comprises a pair of allochiral half shells 11 and 12 each of which is substantially semi-cylindrical in shape. Each of these shells 11 and 12 is provided with a cover portion 13 from which a handle element 14 upwardly projects. At the lower end thereof, each of the half shells 11 and 12 is provided with an outstanding lever arm 15 apertured as at 16 to accommodate one of the aforesaid slip pins 5. Such lever arms may be attached to the half shells in any suitable fashion, such as by one or more countersunk screws 17 as clearly seen in Fig. 5.

As seen best in Figs. 3 and 5, the shell 11 is provided with a gear segment 18 at the lower part of each inner edge, and the shell 12 is similarly provided with gear segments 19—19 shaped for loosely meshing with the gear segments 18 on the other half shell.

With reference to Fig. 5, it will be seen that one or both of the half shells 11 and 12 may be provided at its upper end with a suitable shock absorbing element 20 recessed in the respective cover portion 13, and these shock absorbing elements may well be made of relatively soft rubber.

In order to assemble the device, it is simply necessary to place the two half shells 11 and 12 in the position seen in Fig. 3, and then telescope the lower ends of the shells inside the foundation members 2—2 on the base. In this operation, the compression springs 6—6 will seat in a suitable socket 21 in the corresponding lever arm 15. The pins 5—5 may thereupon be readily slipped through the apertures 4 in the adjacent confronting lugs 3—3 of the base, and at the same time pass through the aperture 16 in the respective lever arm 15 which extends outwardly between the confronting lugs 3—3. When these two pins have been placed in position, the device is completely assembled and ready for operation. It will be at once apparent that it is a simple expedient to remove the two slip pins 5—5, lift out the half shells 11 and 12, and the entire device is completely dismantled, at least sufficiently for purposes of positive and easiy cleansing of the parts.

A stack 22 of inverted nested conical paper cups may be placed on top of the supporting plug 7 either before or after assembling the dispenser-holder. Usually the cups will be placed in after the assembly of the holder, because it will be necessary to replenish the dispenser-holder with cups many, many times before it is necessary to dismantle and cleanse the dispenser.

In operation, the instant invention is extremely simple and highly satisfactory. Assuming the dispenser to be in the position seen in Fig. 2, and containing a stack 22 of paper cups, it is a simple expedient for an operator to press on a handle 14, or on a lever arm 15, with the finger, and move one of the half shells 11 outwardly, the shell pivoting about the respective pin 5. This pivotal action will, of course, be against the springs 6—6, but nevertheless only a very light pressure is necessary. The movement of one of the shells, by virtue of the loosely meshed gear segments 18 and 19, will cause a corresponding outward movement of the opposite shell. Upon the application of such pressure, the two half shells will assume a position substantially that seen in Fig. 5, and access is readily had to the uppermost cup of the stack 22. Upon release of the pressure, the springs 6—6 automatically restore the half shells to closed position, and this closure is silent and smooth by virtue of the one or more shock absorbing elements 20.

Where the present invention is used at soda fountains and in similar locations, it is a simple expedient, especially during rush hours, to open the dispenser and raise one or both of the anchoring loops 10—10 from the dotted line position seen in Fig. 5 to the full line position, over the end of the adjacent lever arm 15 and thus lock the dispenser in open position. The cup stack 22 remains in an immobile erect condition where

the cups are readily accessible, and individual cup holders, which commonly have automatic gripping means therein, may be utilized as indicated by the dotted lines **23** in Fig. 5 to remove the cups one at a time from the top of the stack. As soon as the rush hour is over, it is a simple expedient to release the anchoring loops **10—10** and permit the holder to automatically close so that the cups are completely enclosed and maintained free from dust, satisfying any sanitary regulations of the particular locality.

From the foregoing, it is apparent that we have provided a simple form of dispenser for paper cups that is not only highly efficient in operation, but very pleasing in appearance. It will be noted that the dispenser may be opened at a touch, and when closed fully protects the cups from dust and dirt. Further, the dispenser may be readily dismantled for cleaning when desired, and very facilely reassembled. The invention has few parts that ever become out of order, is economical to manufacture, and may readily be adapted for cups of substantially any desirable shape.

It will be understood that modifications and variations may be effected without departing from the scope of the novel concepts of the present invention.

We claim as our invention:

1. In a paper cup dispenser, a base, an upright casing on said base to enclose a stack of paper cups, said casing including a pair of complemental shells pivoted at their lower ends to said base, an outwardly extending lever arm at the lower end of each shell to pivot the same outwardly to expose the cups, means connecting said shells for movement in unison, resilient means tending to maintain said shells closed, and an anchoring loop pivoted to said base to engage over one of said arms and hold the casing in open position.

2. In a paper cup dispenser, a base, an upright casing on said base to enclose a stack of paper cups, said casing including a pair of complemental shells pivoted at their lower ends to said base, an outwardly extending lever arm at the lower end of each shell to pivot the same outwardly to expose the cups, means between said shells to cause corresponding movement of one when the other is pivoted, and anchoring means on said base to selectively hold said casing in open position.

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REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
1,214,677	Herzog	Feb. 6, 1917
2,254,038	Hope	Aug. 26, 1941

FOREIGN PATENTS

Number	Country	Date
439,232	Germany	Jan. 6, 1927