Feb. 18, 1941. J. BALTON 2,232,425

CONE DISPENSER

Filed Aug. 17, 1938

Fig. 1.

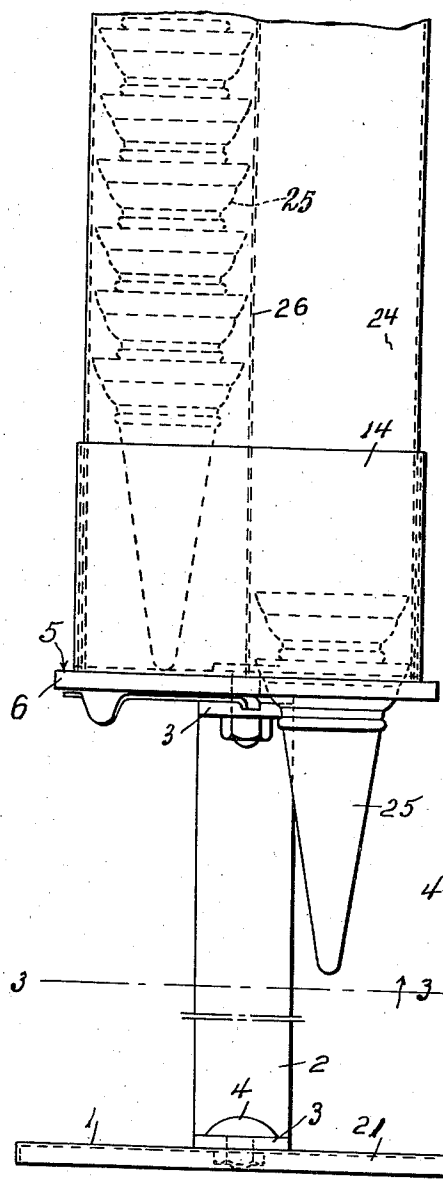


Fig. 2.

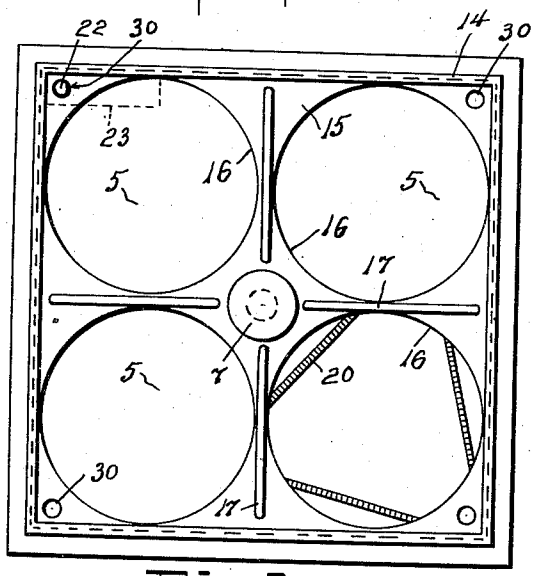


Fig. 3.

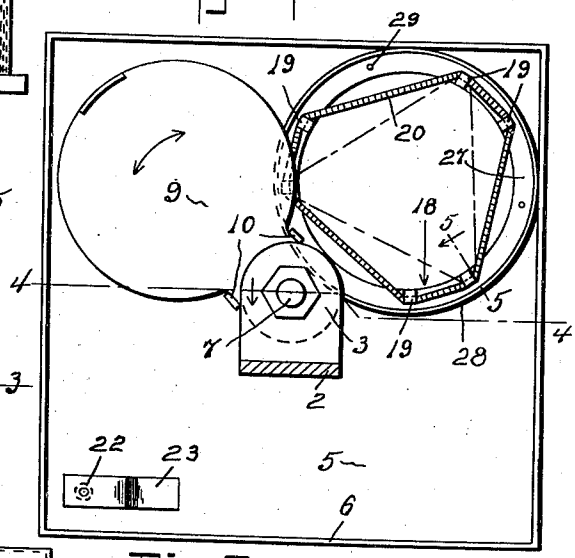


Fig. 4.

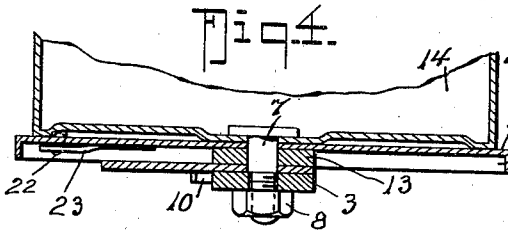
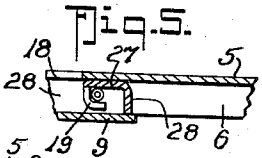


Fig. 5.



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UNITED STATES PATENT OFFICE

2,232,425

CONE DISPENSER

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Application August 17, 1938, Serial No. 225,447

9 Claims. (Cl. 312—43)

My invention relates to devices for dispensing ice cream cones and other similarly shaped receptacles and it particularly has for an object to provide a dispenser of simple construction and of such inexpensive manufacturing cost that it may be given away with cone orders of a predetermined amount.

Again, it is an object to provide a simple dispenser for cones wherein the usual carton with four pockets or nests for the stacks of cones serves as the magazine, making it unnecessary to remove the cones from the cartons for placing in the dispenser.

Another object of the invention is to provide a dispenser in which different sizes of cones may be dispensed by the same mechanism.

Again, it is an object to provide a dispenser that can be shipped knocked-down in the same cases which contain the cartons of cones without the necessity of enlarging the cases now used.

Other objects will in part be obvious and in part be pointed out hereinafter.

To the attainment of the aforesaid objects and ends the invention still further resides in the novel details of construction, combination and arrangement of parts, all of which will be first fully described in the following detailed description, and then be particularly pointed out in the appended claims, reference being had to the accompanying drawing, in which:

Fig. 1 is a front elevation of a dispenser according to my invention, a portion of the carton being broken away.

Fig. 2 is a top plan view of the dispenser proper (the carton being removed).

Fig. 3 is a section on the line 3—3 of Fig. 1.

Fig. 4 is a detail section on the line 4—4 of Fig. 3.

Fig. 5 is an enlarged detail section on the line 5—5 of Fig. 3.

In the drawing, in which like numbers of reference indicate like parts in all figures, 1 is a base stamped from sheet metal with a shallow flange 21. To this base is securely bolted at 4 a standard 2 consisting of a flat bar with its ends bent over at right angles to constitute ears 3—3 through the lower one of which the bolt 4 passes and to the upper one of which the table 5 is secured by the pivot bolt 7 (see Fig. 4). The table 5, like the base 1, is stamped from sheet metal and it too has a short skirt or shallow flange 6.

The table has a single dispensing hole 18 to pass the largest size cone to be dispensed.

Triangularly arranged around the hole 18 are three pairs of hooks 19 around which the cone-stack-supporting light coil spring 20 is passed, the spring passing around all hooks 19 when the largest size cones are to be dispensed and around only one of each pair (indicated by dot and dash lines in Fig. 3) when smaller cones are to be dispensed.

Disposed in a plane below the spring 20 and hooks 19 is a sheet metal valve or gate 9 that is pivoted on bolt 7 and can be swung to either of two positions, one being under the hole 18 to support the cone stack in a substantially closed container and the other being the position shown in Figs. 1, 3 and 4, namely a position where the gate has completely uncovered the hole 18. Stops 10, stamped as ears from the gate sheet, serve to limit the movements of the gate by contact with the upper ear 3 of the standard 2.

The table also carries a latch 22 and latch spring 23 to hold the carton carrier 14 in its several operative positions by the latch entering one of the holes 30 in the bottom 15; the bottom 15 of the carrier 14 has a bottom with four discharge holes 16 to line up, one at a time, with the hole 18. Stiffening beads 17 between the holes 16 reinforce the bottom 15, which bottom is pivotally mounted on bolt 7 and rests on table 5, a suitable spacer 13 being interposed between gate 9 and table 5 (see Fig. 4).

The carton carrier is designed to receive and fit over the end of a carton 24 of cones 25.

The carton 24 is divided by crossed partitions 26 into four cells in which the stacks of cones are packed.

With the gate 9 closed, a carton containing four stacks of cones is set down in the carrier 14 (see Fig. 1). When gate 9 is opened, the stack of cones over opening 18 will drop until the same is arrested by the spring 20 (see Fig. 1). Then to obtain a cone it is only necessary for one to grasp the cone at the bottom of the stack and pull it down until it is free of the spring 20, the next higher cone then being caught by the spring and the movement of the stack arrested.

By using a fine wire spring 20, the cones will not be injured in removing a cone from the apparatus. When one stack has been dispensed it is replaced by turning the holder 14 around 90°, etc.

In practice, by making the base 1 and table 5 of little depth, say about one quarter of an inch, and by making the standard of such height that the ears 3—3 will slip over the sides of two car-

tons 24, it is possible to ship a dispenser in the same case in which the cones are shipped. In packing the dispenser in the cone shipping case the holder 14 is slipped over the end of one carton and the plates 1 and 5 are tucked in at the side between the case and the cartons in the case.

If the spring 20 loses its resiliency or becomes lost, an ordinary rubber band of appropriate strength can be substituted.

In the preferred form of the invention the hooks 19 are formed on a ring 27 which is secured (preferably by spot welding as at 29) to the table 5. The ring 27 has an outer annular flange 28 of a depth such that when the gate 9 is in position under the hole 18 (see Fig. 5) it will contact said flange 28, to prevent dust entering the dispenser through opening 18.

What I claim is:

1. A dispenser for ice cream cones, comprising a table having a dispensing hole, a gate below the table for moving below the hole to close the same against escape of cones and entry of dust through the hole, a cellular carton holder swivelly mounted on the table, said holder having in its bottom a hole for each cell of the carton, said holder's holes being positioned to be severally brought into register with the table's hole, a latch device for holding said holder against swivelling accidentally, and a light resilient band passing across beneath said dispensing hole at three places in approximately triangular formation.

2. A dispenser for ice cream cones, comprising a table having a dispensing hole, a gate below the table for moving below the hole to close the same against escape of cones and entry of dust through the hole, and a light resilient band passing across beneath said hole at three places in approximately triangular formation, there being at least three hooks mounted on the under side of the table adjacent said hole and around which said resilient band is passed.

3. A dispenser for ice cream cones, comprising a table having a dispensing hole, a gate below the table for moving below the hole to close the same against escape of cones through the hole, and a light resilient band passing across beneath said hole at three places in approximately triangular formation, there being three pairs of hooks mounted on the under side of the table adjacent said hole and around which said resilient band is passed, said band comprising a light coil spring.

4. A dispenser for ice cream cones, comprising a table having a dispensing hole, a gate below the table for moving below the hole to close the same against escape of cones through the hole, and a light resilient band passing across beneath said hole at three places in approximately triangular formation, a ring having hooks arranged in triangular formation, around which hooks said band is passed, said ring having an annular outer flange encircling said hooks and serving as a seat for said gate when closed and means securing said ring to said table and around said hole.

5. In a cone dispenser, a table having a cone-passing hole, a ring having an outer annular flange and secured beneath and to said table around said hole, said ring having hooks adjacent its inner opening, a cone hold-back spring held by said hooks and encircled by said flange and passing across said hole in triangular formation, and a gate carried by said table to cooperate with said flange to close said hole and protect said spring.

6. A dispenser for ice cream cones, comprising a table, means to support said table at an elevated position greater than the length of a cone, said table having a dispensing hole, a gate beneath the hole and attached to the table for moving under said hole to close the same against escape of cones through said hole, a carton holder swivelly mounted on said table and adapted to receive a cellular carton of cones, said holder having in its bottom a hole for each cell of the carton, said holders' holes being positioned to be brought one at a time into register with said table's hole, means to retain a stack of cones releasably one at a time, when said gate is open, the bottom of said holder having a latching hole for each bottom hole and a leaf spring secured to said table, said table having an aperture and having a pin to project through said aperture into one of the holder's latching holes when the same is in register with said aperture.

7. In a cone dispenser, a table having a cone passing hole, a ring located in proximity to and surrounding said hole and projecting beneath the table and of a diameter substantially less than that of the table, a gate pivoted beneath said table to fit under and in contact with said ring and close the passage through said ring completely, and yieldable resilient cone-retaining means mounted within the confines of said ring beneath said table.

8. In a cone dispenser, a table having a cone passing hole, a ring located in proximity to and surrounding said hole and projecting beneath the table and of a diameter substantially less than that of the table, a gate pivoted beneath said table to fit under and in contact with said ring and close the passage through said ring, and yieldable resilient cone-retaining means mounted within the confines of said ring beneath said table, said means comprising a continuous springy element and at least three hooks adjacent said hole and within the confines of said ring around which said springy element is held to extend across said hole for purposes described.

9. In a cone dispenser, a table having a cone passing hole, a ring located in proximity to and surrounding said hole and projecting beneath the table and of a diameter substantially less than that of the table, a gate pivoted beneath said table to fit under and in contact with said ring and close the passage through said ring, and yieldable resilient cone-retaining means mounted within the confines of said ring beneath said table, said means comprising a continuous springy element and at least three hooks adjacent said hole and within the confines of said ring around which said springy element is held to extend across said hole for purposes described, said springy element being an endless coil spring.

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