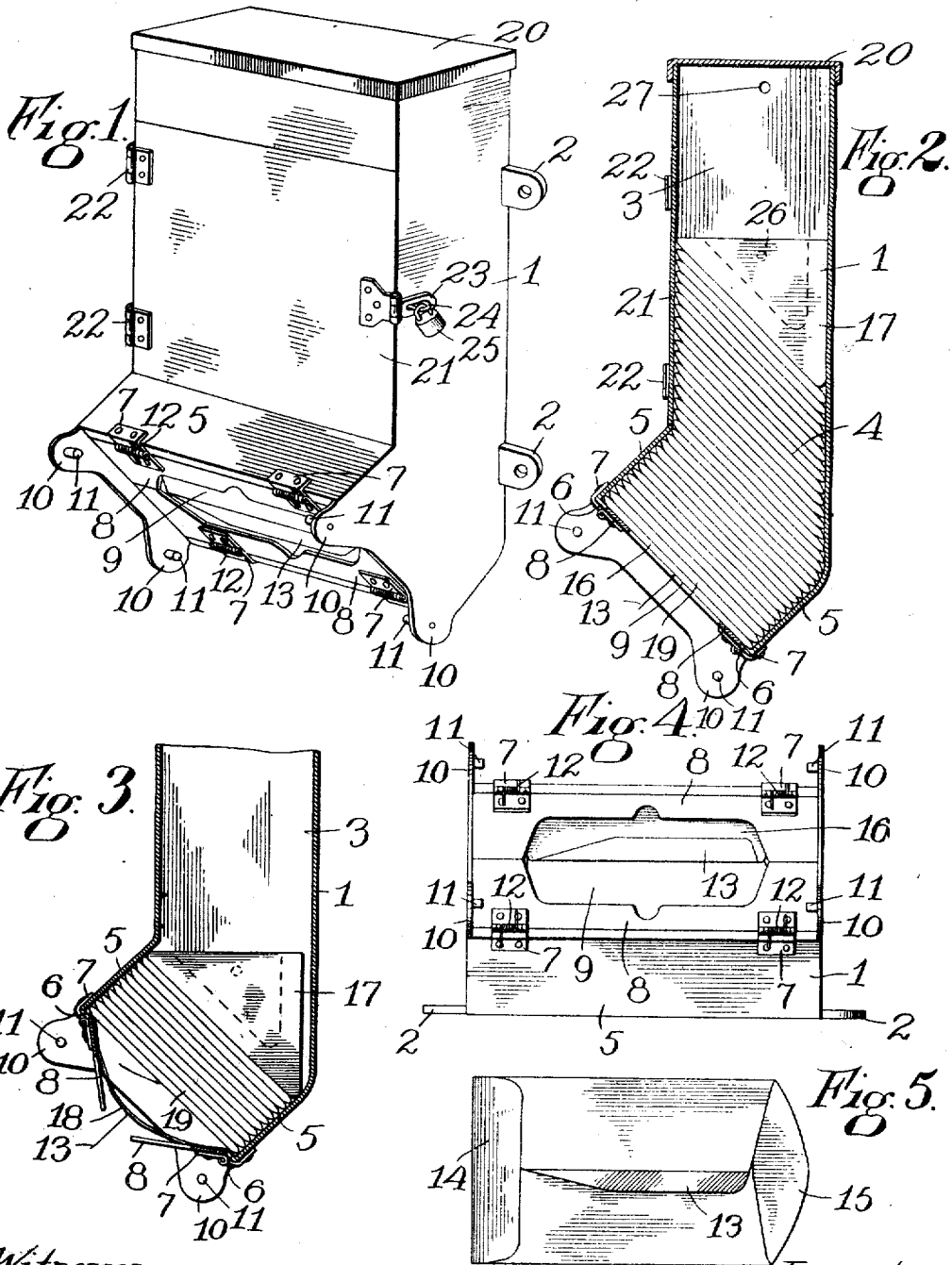


W. E. SWIFT.
CABINET FOR PAPER DRINKING CUPS.
APPLICATION FILED MAR. 4, 1912.

1,151,064.

Patented Aug. 24, 1915.



Witnesses
R. D. Tolman.
Envelope Comberbach.

Inventor
Willard E. Swift.
By Rufus B. Dwyer
Attorney

UNITED STATES PATENT OFFICE.

WILLARD E. SWIFT, OF WORCESTER, MASSACHUSETTS, ASSIGNOR TO UNITED STATES ENVELOPE COMPANY, OF SPRINGFIELD, MASSACHUSETTS, A CORPORATION OF MAINE.

CABINET FOR PAPER DRINKING-CUPS.

1,151,064.

Specification of Letters Patent. Patented Aug. 24, 1915.

Application filed March 4, 1912. Serial No. 681,582.

To all whom it may concern:

Be it known that I, WILLARD E. SWIFT, a citizen of the United States, residing at Worcester, in the county of Worcester and Commonwealth of Massachusetts, have invented a new and useful Improvement in Cabinets for Paper Drinking-Cups, of which the following is a specification, accompanied by drawings forming a part of the same.

My present invention relates to a cabinet for the storage of paper drinking cups for public use, provided with means for the withdrawing of individual cups from the cabinet by the user.

The objects of my invention are to provide a convenient receptacle for the storage of paper drinking cups for use in public places, such as railway cars, stores, hotels, and other public places in which a large number of cups may be held in a stack or tier; and to furnish means for the presentation of a single cup to the user, and to enable the cup so presented to be separated from the stack and withdrawn by the user; and further, to protect the inside of the cups from exposure to dirt and dust.

These objects among others, I accomplish by the construction and arrangement of parts as hereinafter described and pointed out in the annexed claims.

The cabinet embodying my present invention is particularly designed to be used in connection with that class of paper drinking cups which are provided with fins or tabs upon their sides by which they may be seized and withdrawn from the cabinet, although the cabinet is not confined to this class of cups.

Referring to the accompanying drawings, Figure 1 is a perspective view of a drinking cup cabinet embodying my invention. Fig. 2 is a central, vertical, sectional view. Fig. 3 is a central, vertical, sectional view of the lower part of the cabinet, showing the position of the drinking cup in the process of being withdrawn from the cabinet. Fig. 4 is a front view of the mouth, or lower end of the cabinet. Fig. 5 is a view of a paper drinking cup having a fin or tab on its side, and representing that class of paper drinking cups for which my cabinet is particularly adapted.

Similar reference figures refer to similar parts in the different views.

My improved cabinet consists of a shell

or casing 1, preferably made of sheet metal, and adapted to rest against a vertical wall or other support, to which it may be attached by screws or nails passing through laterally projecting lugs 2, 2. The casing 1 incloses a drinking cup chamber 3 in which a stack or tier 4 of drinking cups is placed. The upper portion of the casing 1 is provided with vertical sides and incloses a chamber of less width than the width of the drinking cups, so that the drinking cups, when inserted in the chamber, are placed at an angle of 45° to the vertical walls of the chamber, as represented in Fig. 2.

The lower end of the casing is bent forwardly at an angle of 45° to the vertical section of the casing, as represented at 5, 5, Fig. 2, the distance between the walls 5, 5, being equal to the width of the drinking cups. The lower end of the cabinet terminates in an open mouth from which the drinking cups may be individually withdrawn. The front and rear walls 5, 5, of the casing are turned inwardly at right angles at the mouth of the cabinet to form narrow interior flanges 6, 6, against which the edges of the lowermost drinking cup rest.

Connected to the lower end of the cabinet by hinges 7 are the doors 8, 8, partially closing the mouth of the cabinet but having a central opening 9 which discloses the central portion of the lowermost drinking cup. The side walls of the cabinet project at its lower end beyond the doors 8, 8, and are provided with ears 10 which hold pins 11, projecting into the path of the doors 8, 8, as the latter are swung open and serving as stops to prevent the doors from being opened too wide. The hinges 7 are provided with torsional springs 12 with their tension applied to the leaves of the hinges to hold the doors 8, 8, in a closed position, as represented in Figs. 1, 2 and 4.

The drinking cups for which my improved cabinet is particularly designed, is represented in Fig. 8, and it consists of a paper bag provided at the center of one of its sides with a projecting fin or tab 13. One end of the cup is closed by an end flap 14 and the opposite or open end is provided with a projecting flap 15. The drinking cups are placed in the cabinet with the sides having the fin or tab 13 lowermost, forming a stack or tier 4, as represented in Fig. 2,

each of the drinking cups lying in a plane at an angle of 45° to the horizontal. The lowermost cup 16 rests against the doors 8, 8, and with its opposite edges bearing 5 against the inwardly turned lips 6, 6, with the fin or tab 13 projecting through the opening 9 between the doors 8, 8. The fins or tabs of the superimposed drinking cups lie folded flat against the sides of the cups.

10 Sufficient pressure is applied to the stack 4 by means of a weight 17 to hold the cups in the stack firmly in contact with each other, and to press the lowermost cup 16 firmly against the lips 6, 6.

15 In order to withdraw the lowermost cup 16 from the cabinet the fin or tab 13 projecting through the opening 9 in the doors 8 is seized and pulled forward, causing the drinking cup to be bowed or bent outwardly, as represented at 18, Fig. 3, the pressure of the cup against the doors 8 causing them to be swung outwardly against the tension of the torsional springs 12, as represented in Fig. 3. The bowing or bending of the 25 drinking cup as it is withdrawn draws its edges from behind the lips 6, 6, and allowing the next succeeding cup 19 to be pressed down by the weight 17 against the lips 6, 6. As the lowermost cup is finally withdrawn 30 from the cabinet the hinged doors 8, 8, are forced back by the torsional springs 12 into their normal position against the drinking cup 19 which has then been brought into the lowermost position in the stack.

35 The doors 8, 8, are suitably shaped to cover the opposite ends and the side edges of the lowermost drinking cup in the stack, leaving only that portion of the drinking cup corresponding to the area of the opening 9 exposed, the exposed portion of the 40 drinking cup being only sufficient to allow the fin or tab 13 to be conveniently seized. This prevents the abstraction of a drinking cup except as it is pulled from the cabinet 45 by means of the fin or tab 13. The doors also cover the open end of the drinking cup, preventing the accession of dirt or dust to the interior surface of the cup.

50 By bending the cabinet at its lower end at an angle of say 45° from the vertical section of the cup and by placing the drinking cups in the cabinet at an angle corresponding to the angle of the lower or bent end of the cabinet I am enabled to reduce the upright 55 or vertical section of the cabinet in thickness so it will project but a short distance from the wall or supporting surface, while the angle of the cabinet at its lower end enables the drinking cups to successively pass from 60 the vertical section into the lower or oblique section of the cabinet without change in the angle of the drinking cup to a vertical or horizontal plane, and it also enables the 65 lowermost drinking cups to be presented broadside to the open mouth of the cabinet

which lies at an oblique angle to a vertical plane, thereby exposing the fin or tab 13 to view.

In the cabinet represented in the accompanying drawings I have shown its upper 70 end open and closed by a removable cover 20 enabling the weight 17 to be withdrawn and the drinking cups entered through the top of the cabinet if desired.

In practice, however, I prefer to provide 75 the front vertical wall of the cabinet with a door 21 attached to the side wall of the cabinet at one end by hinges 22 and having a clasp 23 locking over a staple 24 in the opposite side wall of the cabinet, allowing the 80 door to be fastened by a padlock 25. To fill the cabinet I open the door 21, raise the weight 17 to the top of the cabinet, and by pushing the weight slightly to one side I cause a short projecting stud 26 thereon to 85 enter a hole 27 in the side wall of the cabinet. This supports one end of the weight 17 which falls slightly and lies diagonally across the cabinet, causing it to be held in its raised position while the cabinet is being 90 refilled. The release of the projecting stud 26 from the hole 27 will then allow the weight 17 to rest upon the top of the stack or tier of drinking cups.

I claim,

1. A cabinet for drinking cups, comprising a casing inclosing a chamber for the cups, with the lower section of the case at an oblique angle to the upper section, with the depth of the upper section less than the 100 width of the cups, and with the depth of the lower section equal to the width of the cups.

2. A cabinet for drinking cups, comprising fixed upper and lower sections at an obtuse angle to each other, said lower section 105 having an open bottom and provided with integral intumed flanges for supporting the drinking-cups by their edges, and a pair of hinged doors partially closing said open 110 bottom.

3. A cabinet for drinking cups, comprising upper and lower sections at an obtuse angle to each other, with the end of the lower section at an oblique angle to a horizontal plane, the lower section provided with 115 integral intumed flanges for supporting the drinking-cups by their edges, doors hinged at the extreme edges of said flanges for closing the bottom of said lower section, and yielding means for normally holding said 120 doors in a closed position.

4. A cabinet for drinking cups, having its lower end open and provided with intumed flanges for supporting the cups by their 125 edges, a pair of hinged doors for closing said open end, and yielding means for holding said doors normally closed, said doors having a central opening to disclose a portion of the lowermost cup.

5. A cabinet for drinking cups, having an 130

open bottom for the withdrawal of single cups therefrom, hinged doors closing said open bottom, yielding means for normally closing said doors, with the sides of said
5 cabinet projecting beyond said hinged doors.

6. A cabinet for drinking cups, comprising an upper section, means for supporting said upper section in a vertical position, a lower section at an oblique angle to said
10 upper section and having an open bottom at an oblique angle to a vertical plane, hinged doors for closing said bottom, yielding means for holding said doors in a closed position, means for supporting the cups by
15 their edges independently of said doors, said upper section having a door for the insertion of the cups.

7. A cabinet for drinking cups having a feed section of smaller cross section than the
20 area of a cup, and a delivery section having a cross section equal to the area of a cup.

8. A cabinet for a stack of drinking cups, having a feed section in which the cups of the stack lie in planes inclined with respect to a cross section of said feed section, and a
25 delivery section in which the cups of the stack lie in planes parallel to a cross section of said delivery section.

9. A cabinet for flexible articles, having an open lower end, fixed means carried at
30 said open end for retaining the articles within said cabinet, and movable means, adapted to be opened by the flexure of an article to disengage it from said fixed means, for shielding the lowermost article in the
35 cabinet.

Dated March 1, 1912.

WILLARD E. SWIFT.

Witnesses:

PENELOPE COMBERBACH,
NELLIE WHALEN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."

It is hereby certified that in Letters Patent No. 1,151,064, granted August 24, 1915, upon the application of Willard E. Swift, of Worcester, Massachusetts, for an improvement in "Cabinets for Paper Drinking-Cups," errors appear in the printed specification requiring correction as follows: Page 1, line 102, for the abbreviation and numeral "Fig. 8" read *Fig. 5*; page 3, line 5, claim 5, after the word "doors," insert the words *and having stops projecting in the path of the doors to limit their outward movement*; and that the said Letters Patent should be read with these corrections therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 21st day of September, A. D., 1915.

[SEAL.]

J. T. NEWTON,

Acting Commissioner of Patents.