No. 852,345. PATENTED APR. 30, 1907.

J. T. H. PAUL.

BOTTLE HOLDER.

APPLICATION FILED FEB. 16, 1907.

2 SHEETS—SHEET 1.

Fig. 1.

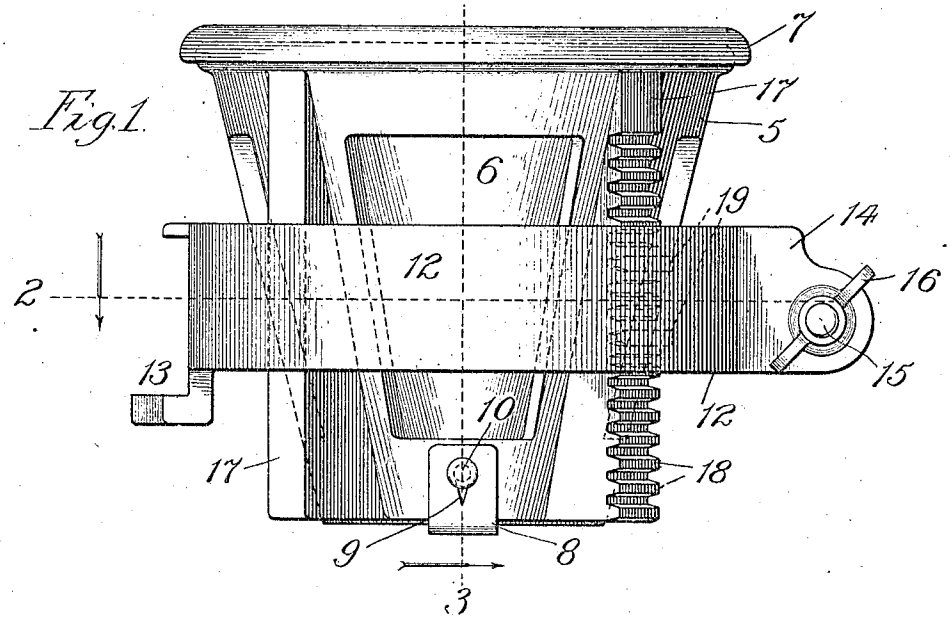
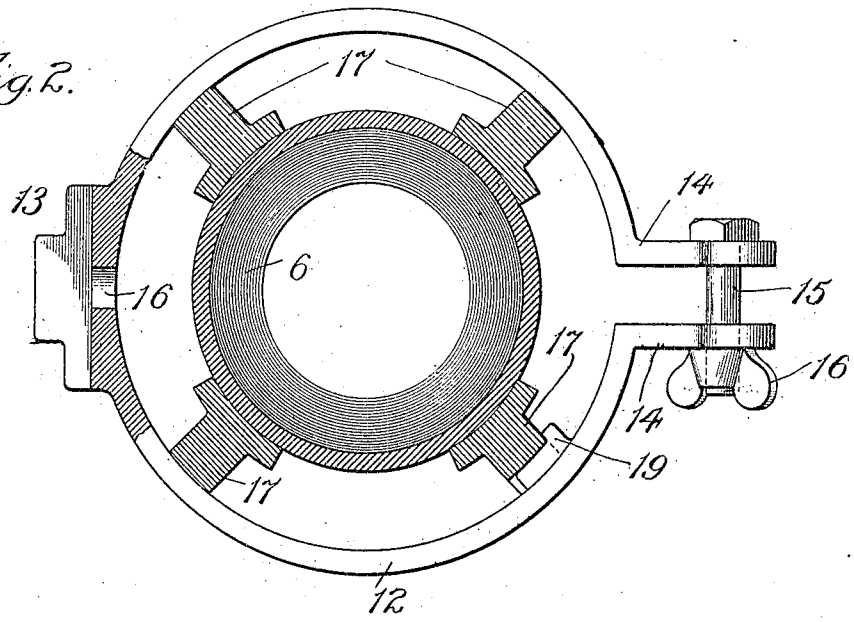


Fig. 2.



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2 SHEETS—SHEET 2.

Fig. 3.

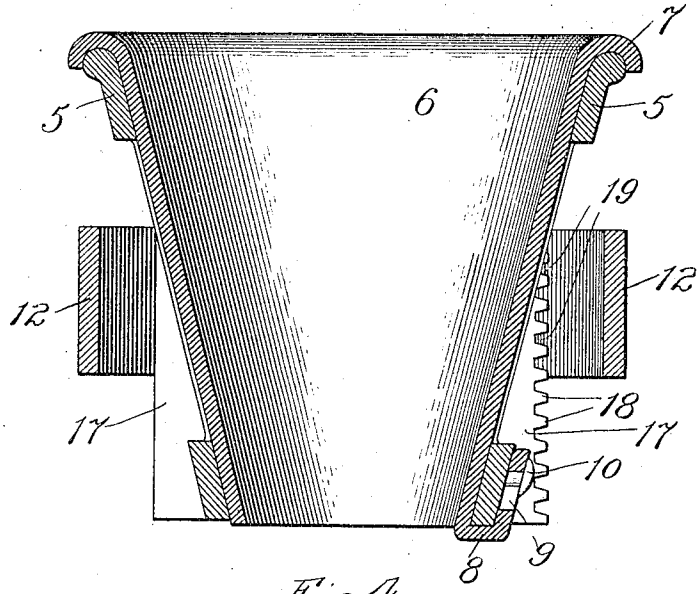
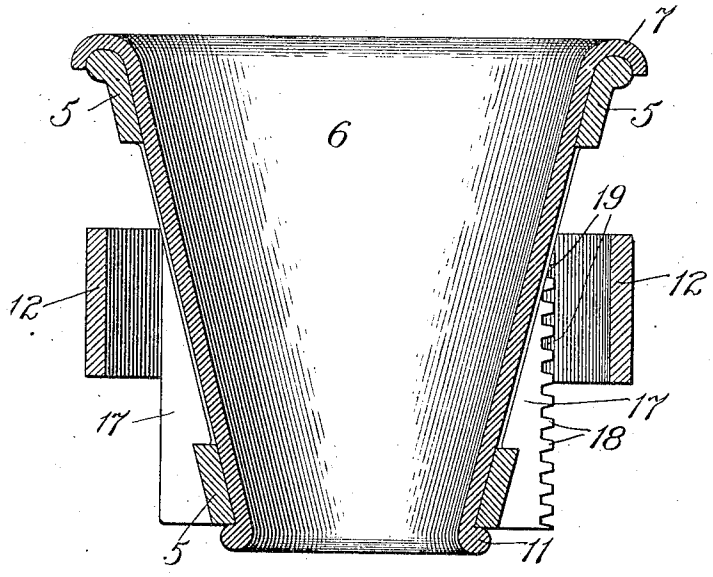


Fig. 4.



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UNITED STATES PATENT OFFICE.

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BOTTLE-HOLDER.

No. 852,345. Specification of Letters Patent. Patented April 30, 1907.

Application filed February 16, 1907. Serial No. 357,604.

To all whom it may concern:

Be it known that I, JOHN T. H. PAUL, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Bottle-Holders, of which the following is a specification.

My invention relates to bottle-holders of the kind employed on the conveyer used to co-operate with a bottle-washing machine, as shown and described in United States Letters Patent No. 827,388, granted to me July 17th, 1906, and therein referred to as a downwardly tapering bottomless rubber-lined cup, adapted to receive a bottle neck downward with the neck projecting through the cup to permit the bottle to drain.

The purpose of the lining of the cup, which is of metal, and which should project through its lower end, is to cushion the bottle against fracture in dropping into the cup from the conveyer; and the lining requires to be fastened in place in a manner adapting it to be readily secured in inserting it and removed, when worn, to be replaced by another. Moreover, the cup should be supported on the endless chain of the conveyer in a manner to adapt it to be raised and lowered relative to the delivery-point of bottles from the washing machine, so as to bring the mouth of the cup closer to that point for bottles of smaller size and remove it farther therefrom for bottles of larger size.

My invention consists in the general as also in the more specific construction of the lined cup or bottle-holder, and it also consists in details of construction and combinations of parts hereinafter described and claimed.

Referring to the accompanying drawings—Figure 1 is a view in elevation of a cup or bottle-holder embodying my invention; Fig. 2, a section taken at the line 2 of Fig. 1 and viewed in the direction of the arrow; Fig. 3, a section taken at the line 3 on Fig. 1 and viewed in the direction of the arrow, and Fig. 4, a view like that presented by Fig. 3, but showing a modification of the retaining means for the cushioning lining.

The holder consists of a metal casing 5 preferably of the downwardly tapered form represented, with openings through its walls for lightening the casting and with both ends open; and a lining 6, composed of a shell of suitable cushioning material, such as rubber or leather, conforming to and fitting the inner wall of the casing through which it extends, with its upper margin 7 curved outwardly and downwardly over the upper beaded end of the frame. For retaining the lining in place it is shown in Figs. 1 and 3, to be provided on its lower end with a flap-extension 8 adapted to be bent upwardly about the lower edge of the frame and buttoned at a hole 9 provided in it, on a headed stud 10 projecting in proper position from the side of the frame. As one form of substitute for the buttoning retaining device described, the construction shown in Fig. 4 may be employed, consisting of a flange or bead 11 formed about the lower protruding end of the shell 6 for holding the lining in the frame or casing. This last-named retaining means may easily be provided by molding where the lining is composed of rubber, but not when the lining is leather or other material which is not susceptible of molding like rubber.

For removing the lining-shell 5 shown in Figs. 1 and 5, the flap 8 is first unbuttoned, when the shell may be easily withdrawn through the upper end of the frame 5, and for removing the modified form of the lining-shell, it may be collapsed by pressure at its lower end to free the flange 11 from the edge of the frame or casing and permit its withdrawal at the upper end of the latter. The modified form may readily be introduced into the casing by pressing it in the hand to collapse it, and inserting it into place, permitting the lower end, on being released from the pressure, to expand into place to engage the flange 11 with the adjacent frame-end.

For attaching a cup or holder to the conveyer-chain of the machine referred to, I surround the casing with a metal ring 12, forming a support for the holder, attachable to the chain of the conveyer at a bracket 13 projecting from the periphery of the ring, which is split at a point diametrically opposite the bracket and provided with perforated ears 14, 14, through which a bolt 15 passes to be fastened by a thumb-nut 16 for tightening the ring about the casing. The ring may be fastened to the chain by a screw (not shown) inserted into it through an opening 16 provided in the base of the bracket to receive the screw. When the frame or casing is of the preferred tapered shape illus-

trated, longitudinal bearing-flanges 17 are provided at intervals about it and are expanded toward the narrower end of the frame to render their outer surfaces straight and adapt them to conform to the straight cross-section of the inner ring-surface. One of these flanges is provided with rack-teeth 18 and the ring is provided, adjacent to an ear 14, with two inwardly projecting seating-lugs 19, 19, one above the other and spaced apart to adapt them to enter between teeth of the rack when brought into registry therewith to sustain the holder on its supporting ring. By the construction thus described, with the ring 14 permitted to expand by loosening the bolt 15, the holder may be turned to disengage the lugs from the rack-teeth, when it may be raised or lowered to adjust its position, for the purpose hereinbefore referred to, and thereupon turned back to again engage the seating-lugs with rack-teeth then registering with it and thus support the holder in its adjusted position in the ring.

What I regard as new, and desire to secure by Letters Patent, is—

1. A bottle-holder comprising a downwardly tapered metallic frame, a tapered shell of cushioning material in said frame with its upper margin extended over the upper end thereof, and means for releasably fastening the shell in the frame.

2. A bottle-holder comprising a downwardly tapered metallic frame, a tapered shell of cushioning material in said frame and extending through the same with its upper margin curved outwardly and downwardly over the upper end of the frame, and means for releasably fastening the shell in the frame.

3. A bottle-holder comprising a downwardly tapered metallic frame provided with a stud on its outer surface, a tapered shell of cushioning material in said frame with its upper margin extended over the upper end thereof and provided on its lower end with a lip-extension adapted to be bent over the lower edge of the frame and buttoned on said stud.

4. In combination, a bottle-holder provided with a rack on its outer surface, and a support for said holder adapted to be attached to a conveyer and consisting of a ring provided on its inner side with a seating-lug to engage said rack, for the purpose set forth.

5. In combination, a bottle-holder provided with a rack on its outer surface, and a support for said holder adapted to be attached to a conveyer and consisting of an expansible split ring provided with means for tightening it about the holder and with inner seating-lugs to engage said rack, for the purpose set forth.

6. In combination, a downwardly tapered bottle-holder provided at intervals about its outer surface with flanges and a rack widening toward the narrower end of the holder, and a support for said holder adapted to be attached to a conveyer and consisting of a ring provided with inner seating-lugs to engage said rack, for the purpose set forth.

7. In combination, a downwardly tapered bottle-holder provided at intervals about its outer surface with flanges and a rack widening toward the narrower end of the holder, and a support for said holder adapted to be attached to a conveyer and consisting of an expansible split ring provided with means for tightening it about the holder and with inner seating-lugs to engage said rack, for the purpose set forth.

JOHN T. H. PAUL.

In presence of—
A. U. THORIEN,
R. A. SCHAEFER.