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NON-REFILLABLE BOTTLE.

APPLICATION FILED SEPT. 18, 1909

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UNITED STATES PATENT OFFICE.

CHARLES HATOSSY, OF PASSAIC, NEW JERSEY.

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944,092.

specification of Letters Patent. Patented Dec. 21, 1909.

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To all whom it may concern:

Be it known that I, CHARLES HATOSSY, a subject of the King of Hungary, residing in Passaic, Passaic county, New Jersey, have 5 invented a certain new and useful Improvement in Non-Refillable Bottles; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

This invention has for its purpose to provide a bottle with means whereby, although it may be drained with facility, it may not be refilled, and whereby, before it can be made to allow refilling by unauthorized tam-20 pering with the means referred to, it must be placed in such a condition that it will

cease even to discharge its contents.

Figure 1 is a view in side elevation of the improved bottle, showing the upper or neck 25 part thereof in vertical section; Fig. 2 and Fig. 3 are views similar to Fig. 1 except that. the bottle is shown in position to discharge its contents, Fig. 2 showing the normal position of a certain valve in the inverted posi-30 tion of the bottle and Fig. 3 showing the position which the valve takes in the inverted position of the bottle when a certain stem on the valve is broken; Fig. 4 is a vertical sectional view of the integral neck-portion of 35 the bottle; Figs. 5 and 6 are horizontal sectional views on the lines x-x and y-y of Figs. 4 and 1, respectively; and Fig. 7 is a side elevation of the valve.

The bottle a has an integral neck-portion b. ± 0 and a separate neck-portion c, the two neckportions forming a vertically elongated cylindrical chamber d. The neck-portion b has an external thread e and the neck-portion c an internal thread f so that the neck-45 portion c may be assembled with neck-portion b by screwing it onto the same; a rubber gasket g is disposed between an internal shoulder h in the neck-portion c and rests on the top of neck-portion b, affording an elas-50 tic seat between the two neck-portions.

When the neck-portion c has been screwed onto the neck-portion b as far as it will go, the former is locked against removal by a stud i which is arranged in a socket j in the 55 neck-portion b, and, under the pressure of a spiral spring k, is forced into a recess l in

the neck-portion c when said recess is made

to register with the socket.

The lower end of the chamber d communicates with the interior of the bottle by a port 60 m of less diameter than said chamber. The lower surface n of this chamber, which is penetrated by the port m is inwardly convex. The upper end of the chamber communicates with the stopper socket o in the 65 upper end of neck-portion c by means of the ports p which downwardly diverge. The upper end q of the chamber d, which is penetrated by the ports p, is inwardly convex.

In the chamber d is arranged a valve r .70 which is cylindrical in cross-section and is formed at its lower end with a concave seat t, adapted to fit the convex end of the chamber and whose upper end is formed with a concave seat u adapted to fit the convex end 75 q of chamber d. The valve is formed of glass, and, in addition to a downwardly projecting tapering stem v which penetrates the port m and serves to guide the valve to its seat n when the bottle stands upright, it has 80. an upwardly projecting stem w. This latter stem projects up from the bottom of a recess x countersunk in the concave seat u, and it has a reduced neck y. The stem w is adapted to impinge against the part p' of 85 the material of the neck-portion c which remains between the ports p, and so long as it is unbroken the stem prevents the valve from seating against the upper convex end of chamber d and so closing the ports p.

z designates vertical ports which extend in the cylindrical wall of chamber d from a point near the top thereof to a point near the bottom, that is, sufficiently so as to be uncovered by the valve when the bottle is 95 inverted (Fig. 2). These ports allow the liquid in the bottle to escape when the bottle is inverted, the liquid passing through port

m, ports z and out through ports p.

When the bottle is filled, the neck-portion 100 c is of course not yet attached, nor has the valve been introduced. Having filled the bottle, the valve is placed in chamber d, the gasket disposed on the top of neck-portion b, and neck-portion c screwed into place un- 105 til it is interlocked with neck-portion b, as already described. The bottle may now be emptied, the liquid of course forcing the valve away from its seat n so that it uncovers the lower ends of the ports z; at this 110 time the flow of the liquid around the upper end of the valve is freely permitted because

the stem w keeps the valve spaced from its upper seat q. Should it be attempted to introduce liquid into the bottle by pouring or otherwise, the valve would be forced 5 against the seat n and stop the inflow. If it be attempted to introduce a wire or the like for the purpose of raising the valve, its stem w being fragile, and weakened particularly at y, will break; any subsequent at-10 tempt to discharge whatever liquid might be introduced into the bottle would be fruitless because the head of stem w, falling into the position shown in Fig. 3, would allow the valve in the inverted position of the bot-15 tle to come against its seat q and close the ports p.

In point of facility and cheapness of manufacture, the parts b, c and r will pref-

erably be made of glass.

Having thus fully described my invention, what I claim as new and desire to secure by

Letters Patent is:—

1. The combination of a bottle having a neck, said neck having a chamber and said chamber having a port of communication with the interior of the bottle and a port of communication with the exterior, and a valve arranged in said chamber and movable to close the first port, said valve being also adapted to close the second port and having a fragile part normally limiting the valve against assuming the closing relation with respect to the second port, substantially as described.

25 2. The combination of a bottle having a neck, said neck having a chamber and the upper and lower walls of said chamber being each formed with a port leading the one to the interior of the bottle and the other to the exterior, and a valve having vertical movement in said chamber into closing rela-

tion to the lower port and its upper end formed to close the upper port when the valve is free to impinge against the upper wall of said chamber, said valve having a 45 fragile stem normally retaining it out of contact with the upper wall of the chamber, and said neck and valve having outlet means affording the escape of the liquid in the bottle when the valve is removed from seal- 50 ing or closing contact with the lower wall of said chamber, substantially as described.

3. The combination of a bottle having an integral neck-portion and a separate neck portion screwed onto the integral neck-por- 55 tion, interlocking means preventing the unscrewing of the separate neck-portion, said neck-portions forming a chamber and the separate neck-portion having a port leading from said chamber to the exterior and the 60 integral neck-portion having a port leading from said chamber to the interior of the bottle, a valve movable vertically in said chamber and having its upper and lower ends formed to close or seal the corresponding 65 port when in contact with the upper or lower end of said chamber and also having a fragile stem normally retaining the valve out of contact with the upper end of the chamber, and said valve and the chamber 70 having outlet means affording the escape of the liquid in the bottle when the valve is removed from sealing or closing contact with the lower end of the chamber, substantially as described.

In testimony, that I claim the foregoing, I have hereunto set my hand this 16th day

of September, 1909.

CHARLES HATOSSY.

Witnesses:
JOHN W. STEWARD,

WM. D. BELL.