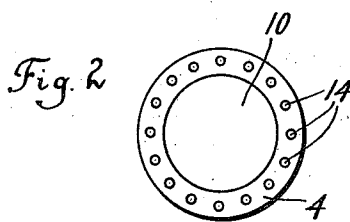
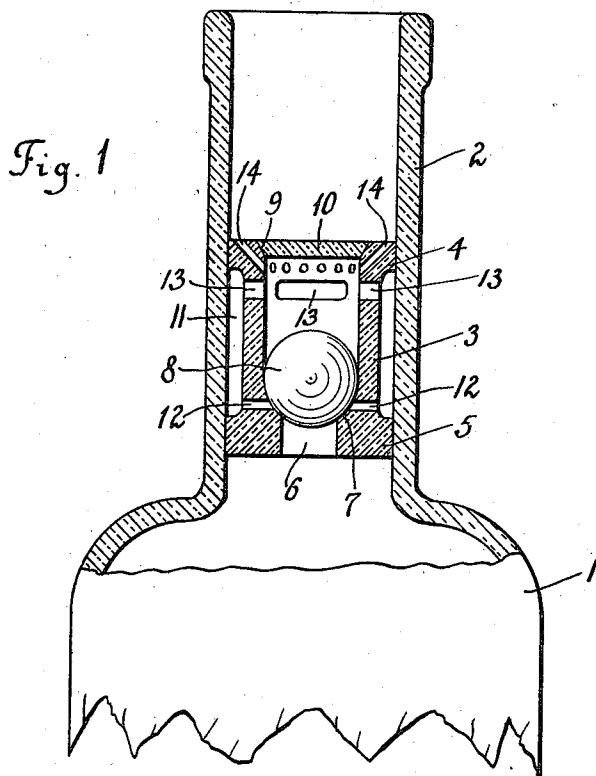


I. TAKÁCS.
 NON-REFILLABLE BOTTLE.
 APPLICATION FILED MAY 19, 1910.

981,327.

Patented Jan. 10, 1911.



WITNESSES:
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UNITED STATES PATENT OFFICE.

IMRE TAKÁCS, OF NEW YORK, N. Y.

NON-REFILLABLE BOTTLE.

981,327.

Specification of Letters Patent.

Patented Jan. 10, 1911.

Application filed May 19, 1910. Serial No. 562,250.

To all whom it may concern:

Be it known that I, IMRE TAKÁCS, a subject of the King of Hungary, and a resident of the city of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Non-Refillable Bottles, of which the following is a specification.

The present invention relates to bottles, and has for its object to prevent the refilling of a bottle after the original contents of the same have been withdrawn, and at the same time to permit of the free and unrestricted decanting of the liquid contents of the same.

Another object of the invention is to provide a device of the character described which is very simple in construction and efficient in operation.

With these and other objects in view, which will appear as the nature of the invention is better understood, the same consists in the combination, construction and arrangement of the several parts, as will be hereinafter fully described, illustrated in the accompanying drawings, and particularly pointed out in the appended claim, it being understood that changes in the form, proportions, size and details may be made within the scope of the claim without departing from the spirit or sacrificing any of the advantages of the invention.

The invention is illustrated in the accompanying drawings, in which:—

Figure 1 is a longitudinal sectional view taken through the neck portion of a bottle embodying the features of the present invention, and Fig. 2, is a plan view of the valve casing.

The present embodiment of the invention is shown applied to a bottle 1 of any common or preferred form, having the usual neck 2. A substantially cylindrical sleeve 3, provided with flanges 4 and 5 upon the upper and lower portions, respectively, and made, preferably, of glass, is fitted within the neck 2 of the bottle at a point so far below the upper end of the neck that space is provided for the insertion of a stopper. The sleeve 3 is securely fastened within the neck, for instance by cementing, when the bottle is formed by the glass blower. The sleeve is open at its lower end, as shown at 6, and provided with a valve seat 7, upon which rests normally a valve-ball 8, made of any suitable material, such as, for instance, rubber. The upper end of the sleeve is pro-

vided with a conical opening 9, covered by a cap plate 10, which is inserted in the manner hereinafter to be described. The inner diameter of the sleeve 3 corresponds substantially to the diameter of the valve-ball 8, allowing thus of a free motion of said valve in the direction of the longitudinal axis of the sleeve.

It will be observed that when the sleeve 3 is properly arranged within the neck 2, an annular space 11 is formed by the outer wall of the sleeve, the flanges 4 and 5, and the inner wall of the neck 2. A plurality of small openings 12, 12 lead through the sleeve 3, near to the lower end thereof, in such a manner that the valve-ball 8 closes the same when upon its valve seat 7, while, when removed therefrom, a communication is opened between the interior of the bottle and the annular space 11. A plurality of openings 13, 13 are provided in the sleeve near to the flange 4, which open a communication between the annular space 11 and the interior of the sleeve, the latter being connected with the upper portion of the neck through a series of small openings 14, 14, arranged in the flange portions 4 of the sleeve 3.

The operation of the device is as follows: The bottle, already provided with the sleeve 3, is filled in the usual manner, whereafter the valve-ball 8 is inserted and the cap plate fitted into the conical opening 9, for instance by cementing the same in the well known manner. When the bottle stands in its usual upright position, the valve ball is seated upon the valve seat 7, and being inverted, the valve will move outwardly under the pressure of liquid and contact with the cap plate 10, whereby a communication is opened between the interior of the bottle through the opening 6, sleeve 3, small openings 12, annular space 11, openings 13, sleeve 3, and small openings 14 with the upper portion of the neck, allowing thus the contents of the bottle to pass outwardly to and through the outer end portion of the neck. Upon returning the bottle to its normal position, the valve will again be seated by gravity, close the small openings 12, and prevent thereby the refilling of the bottle.

What I claim is:

The combination with the neck of a bottle, of a sleeve arranged within said neck at the lower portion thereof and being provided with flanges upon its upper and lower ends whereby an annular closed space is formed

between the interior of said neck and the
outer wall of said sleeve, a cap plate adapted
to close the upper end of said sleeve, said
sleeve being provided with a valve-seat at
5 its lower end and a series of openings above
the valve seat adapted to open a communica-
tion between the interior of said sleeve and
said annular space and having a plurality
of openings near to said upper flange lead-
10 ing from said annular space to the interior
of said sleeve and being provided with a
series of openings leading from the interior
of said sleeve to the outer end of said neck

portion, and a valve adapted to close said
first series of openings when resting upon 15
said valve seat and opening a communica-
tion between the interior of said bottle and
the outer end of said neck portion when con-
tacting with said cap plate.

Signed at New York, in the county of 20
New York and State of New York, this 10th
day of January, A. D. 1910.

IMRE TAKÁCS.

Witnesses:

SIGMUND HERZOG,
S. BIRNBAUM.