

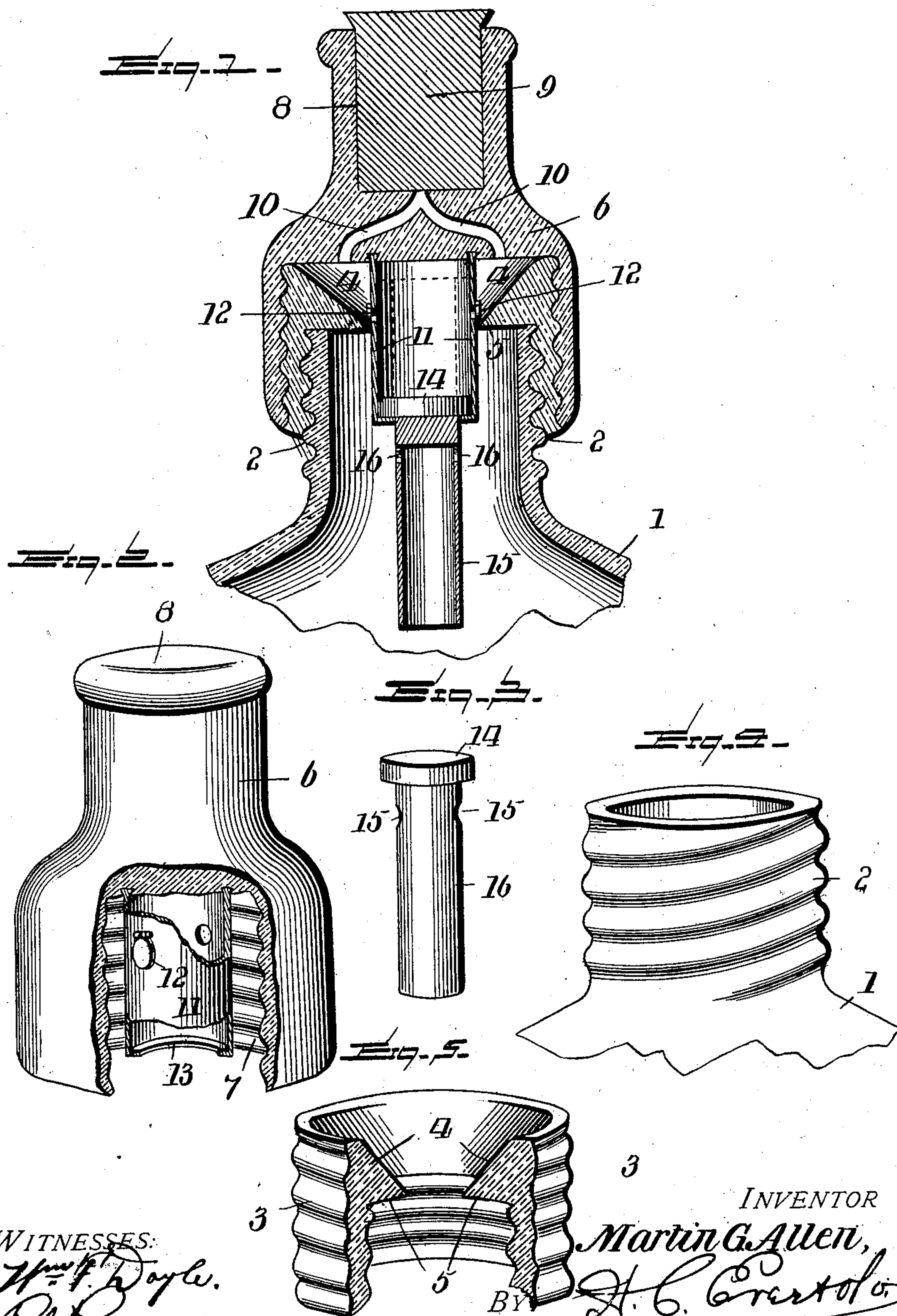
No. 677,913.

Patented July 9, 1901.

M. G. ALLEN.
NON-REFILLABLE BOTTLE.

(Application filed May 8, 1901.)

(No Model.)



WITNESSES:
W. F. Doyle.
R. A. Russ.

INVENTOR
Martin G. Allen,
H. C. Crastolo,
BY *et* Attorney

UNITED STATES PATENT OFFICE.

MARTIN G. ALLEN, OF DECORAH, IOWA.

NON-REFILLABLE BOTTLE.

SPECIFICATION forming part of Letters Patent No. 677,913, dated July 9, 1901.

Application filed May 8, 1901. Serial No. 59,196. (No model.)

To all whom it may concern:

Be it known that I, MARTIN G. ALLEN, a citizen of the United States of America, residing at Decorah, in the county of Winneshiek and State of Iowa, have invented certain new and useful Improvements in Non-Refillable Bottles, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to certain new and useful improvements in non-refillable bottles, and has for its object to produce a device of this nature which shall be highly efficient in its use and comparatively inexpensive to manufacture.

With this and other objects in view my invention further consists in the novel details of construction and combination of parts to be clearly described in the following specification and fully set forth in the claims.

Referring to the accompanying drawings, forming a part of this application, and in which like characters indicate similar parts throughout the several views, Figure 1 is a vertical sectional view of my improved device complete. Fig. 2 is a perspective view of the separate bottle-neck, partly broken away, and showing the cylindrical casing partly in section. Fig. 3 is a detail perspective view of the piston-head and tube connected thereto. Fig. 4 is a perspective view of the bottle to which my improved device is to be attached; and Fig. 5 is a perspective view, partly broken away and in section, showing a detail view of the collar.

In the drawings the reference-numeral 1 indicates the bottle, which may be of any size, shape, or form, the neck thereof being exteriorly threaded, as at 2.

The reference-numeral 3 indicates a collar which is interiorly and exteriorly threaded and is provided with an inwardly-inclined upper face 4, forming a shoulder, as at 5. The separate neck 6 is interiorly threaded, as at 7, and is provided at the top thereof with the usual opening 8, in which is inserted the cork 9.

10 indicates ports which communicate with the opening 8 and the interior of the bottle. A cylindrical casing 11 is provided, near the top thereof, with a series of flat valves 12 of any ordinary construction. The upper part

of this cylindrical casing is securely fastened to the separate neck 6 and has formed in its lowermost portion an annular seat 13. Slidably mounted within this cylindrical casing 11 is a piston-head 14, which is connected to a hollow cylindrical tube 15, which is open at its lower end and provided near the top thereof with ports 16.

The operation of my improved device is as follows: When it is desired to empty the contents of the bottle or any part thereof, the cork 9 is withdrawn and the bottle inverted, whereupon the piston-head 14 will by the action of gravity travel downwardly. When the piston 14 is in its lowest position, the ports 16 in the hollow cylindrical tube connected thereto will register with the flat valves 12, which will allow the liquid to escape through the ports 16, the flat valves 12, and the ports 10 by way of the opening 8. The liquid will flow through the said tube 15, exert pressure on the flat valve, and thus allow of its escape.

I may use any substance, such as cement or other means, for locking the annular collar 3 and the separate neck 6 together which will prevent of their being disengaged and the bottle refilled. I do not claim this as part of my invention, however, and no means is shown for accomplishing this object.

It is thought that the many advantages derived from the construction of my improved bottle will be readily understood.

It will be readily noted that various changes may be made in the details of construction and combination of parts without departing from the general scope and spirit of my invention.

Having thus fully described my invention, what I claim as new and useful, and desire to secure by Letters Patent, is—

1. In combination with a bottle provided with an exteriorly-threaded neck, a sleeve secured thereto, a separate neck secured to said sleeve, said neck having ports formed therein, a cylindrical casing secured to said separate neck, flat valves on said cylindrical casing, a piston-head secured in said casing, a tube connected to said head, said tube having perforations formed therein, substantially as described.

2. In combination with the exteriorly-

threaded neck of a bottle, and a collar secured thereto, said collar being provided with an annular inwardly-inclined upper face, an interiorly-threaded separate neck mounted on
5 said collar, said neck being provided with ports, a cylindrical casing connected to said neck, a series of flat valves thereon, a seat at the lower end of said casing, a piston-head connected to a tube mounted in said casing,
10 said tube being provided with ports, substantially as described.

3. In combination with the exteriorly-threaded neck of a bottle, a collar exteriorly and interiorly threaded mounted thereon,
15 said collar being provided with an inwardly-inclined upper face, an interiorly-threaded

separate neck secured to said collar, said neck having ports formed therein, a cylindrical casing connected to said neck, flat valves in said casing, an annular seat at the
20 bottom of said casing, a piston-head slidably mounted in said casing, a tube open at one end connected to said piston-head, said tube having orifices formed therein near its upper
25 end, substantially as described.

In testimony whereof I affix my signature in the presence of two witnesses.

MARTIN G. ALLEN.

Witnesses:

W. M. STRAND,

S. B. WHITNEY.