

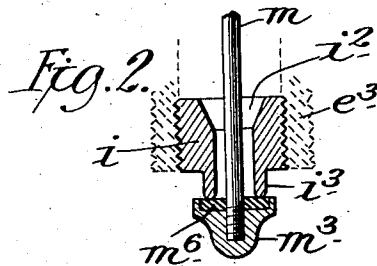
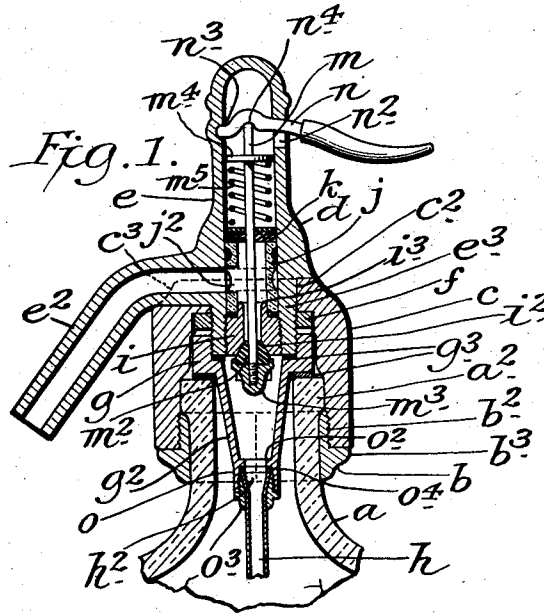
P. DEVARCO.

SIPHON BOTTLE.

APPLICATION FILED APR. 12, 1911.

1,010,730.

Patented Dec. 5, 1911.



WITNESSES

A. R. Appleman
H. A. Mandwille

INVENTOR

PAUL DEVARCO.

By

Edgar R. Hale & Co.
ATTORNEYS

UNITED STATES PATENT OFFICE.

PAUL DEVARCO, OF NEWARK, NEW JERSEY.

SIPHON-BOTTLE.

1,010,730.

Specification of Letters Patent.

Patented Dec. 5, 1911.

Application filed April 12, 1911. Serial No. 620,589.

To all whom it may concern:

Be it known that I, PAUL DEVARCO, a citizen of the United States, and residing at Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Siphon-Bottles, of which the following is a specification, such as will enable those skilled in the art to which it appertains to make and use the same.

This invention relates to siphon bottles or similar vessels designed for use as containers of Seltzer water, Vichy water or other aerated waters or beverages under pressure; and the object thereof is to provide a bottle or vessel of this class with an improved cap or closure device, which is simple in construction and efficient in operation, and which is provided with an improved valve device whereby valves of different shapes may be employed, and with this and other objects in view the invention consists in a cap or closure device for bottles or vessels of the class specified, constructed as hereinafter described and claimed.

The invention described and claimed herein is an improvement on that described and claimed in U. S. Letters Patent granted to me November 2nd, 1909, #938,746, and said invention is disclosed in the following specification, of which the accompanying drawing forms a part, in which the separate parts of my improvement are designated by suitable reference characters in each of the views, and in which:—

Figure 1 is a central vertical section of the top portion of a siphon bottle constructed according to my improvement;— and, Fig. 2 a view similar to Fig. 1 but showing only a detailed construction and showing a modification.

In the drawing forming part of this specification I have shown at *a* the neck portion of an ordinary siphon bottle and the top portion of which is provided with an annular shoulder *a*², and placed around the neck below said annular shoulder is a metal ring or band *b*, the top portion of which is threaded externally as shown at *b*², and the bottom portion of which is provided with an annular bead or projection *b*³ against which the body *c* of the cap member *d* abuts when said cap member is screwed into position as shown in Fig. 1, and the ring or band *b* is composed of two parts, in the usual manner, and as indicated by dotted lines in

Fig. 1, but said ring or band form no part of my improvement. The body *c* of the cap *d* is of the usual form and incloses the top part of the neck of the bottle, and said body portion of the cap is also provided in the top thereof with an opening *c*², at one side of which is a radial recess *c*³. The top part *e* of the cap is tubular in form and said cap is provided at one side with the usual discharge spout *e*² which fits in said recess, and said top part *e* of the cap is provided with a downwardly directed tubular extension *e*³ which is inserted into the opening *c*² in the top of the body *c* of said cap, and the lower end portion of which is threaded both on its inner side and on its outer side, as clearly shown, and placed on the lower end portion of the tubular extension *e*³ is a lock nut *f* which locks the parts *e* and *c* together, and screwed onto the extreme lower end portion of said tubular extension is a cap nut *g* having a central downwardly directed and tapered extension *g*² with which the central discharge tube *h* of the bottle or vessel is connected, and packing rings *g*³ are placed between the cap *g* and the downwardly directed tubular extension *e*³ of the part *e* and also between said cap and the top of the neck of the bottle.

Screwed into the lower end of the downwardly directed extension *e*³ of the top part *e* of the cap is a tubular valve plug *i*, which is shown both in Figs. 1 and 2, and this valve plug is provided at one end, the lower end as shown in Fig. 1 and the upper end as shown in Fig. 2, with a conical valve seat *i*² and at the opposite end with a tubular extension forming a straight valve seat *i*³. Placed in the top part *e* of the cap and centrally thereof is a tubular sleeve *j* having a side port or passage *j*² adapted to communicate with the discharge spout *e*² and above which is placed a disk *k*, and movable vertically through the top member *e* of the cap, and through the sleeve *j*, and through the valve plug *i* is a valve rod *m*, the lower end of which is provided, in the form of construction shown, with a conical valve *m*² which is held in place on said rod by a nut *m*³, and the valve rod *m* is provided on the upper end portion thereof with a plunger disk *m*⁴, between which and the disk *k* is placed a spiral spring *m*⁵, and an arm *n* passes through a slot *n*² in one side of the top portion of the top member *e* of the cap and it is pivoted in the opposite side thereof

as shown at n^3 , and bears on or operates in connection with the upper end of the rod m as shown at n^4 , and by means of this arm the valve rod m may be forced downwardly in the usual manner, as will be readily understood, so as to open the passage through the cap and through the discharge spout e^2 .

In Fig. 2 the valve plug i is inverted and the rod m is provided with a flat valve m^8 , and the object of making or forming the tubular valve plug i , in the manner shown and described, is to provide means whereby said valve plug may be inverted and whereby valves of different shapes or forms may be employed in connection therewith.

In order to connect the central discharge tube h with the downwardly directed and tapered extension g^2 of the cap nut g , the lower end portion o of said extension is made cylindrical in form and provided with an internal thread and above which is an annular shoulder o^2 , and the upper end of the tube h is enlarged or made bell-shaped in form as shown at h^2 and said end of said tube is inserted into the lower end or the extension o of the part g^2 and is held therein by a binding nut o^3 , as clearly shown in Fig. 1, and placed between the end of the tube h and the annular shoulder o^2 is a packing ring o^4 .

The principal parts of the construction herein shown and described are similar to corresponding parts shown and described in the patent referred to, and form no part of this invention, said invention being limited to the construction and operation of the

valve plug i , whereby said plug may be inverted and whereby different styles of valves may be used in connection therewith, and to the construction employed for connecting the tube h with the cap nut g or the downwardly directed extension g^2 thereof and to the connection of said cap nut with the downwardly directed extension e^3 of the top part e of the cap. It will also be seen that with the construction herein shown and described, the tube h may be quickly and easily connected with the cap nut g or the downwardly directed extension g^2 thereof, and said tube may be securely held in proper position at all times, or in case said tube should be broken at any time, a new tube may be quickly and easily substituted therefor.

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

A siphon bottle or vessel, the neck portion of which is provided with a cap at one side of which is a discharge pipe, said cap being also provided below said discharge pipe with a reversible valve plug, the upper and lower ends of which are provided with different styles of valve seats.

In testimony that I claim the foregoing as my invention I have signed my name in presence of the subscribing witnesses this 11th day of April 1911.

PAUL DEVARCO.

Witnesses:

C. E. MULREANY,
FRANK G. AT LEE.