

No. 837,395.

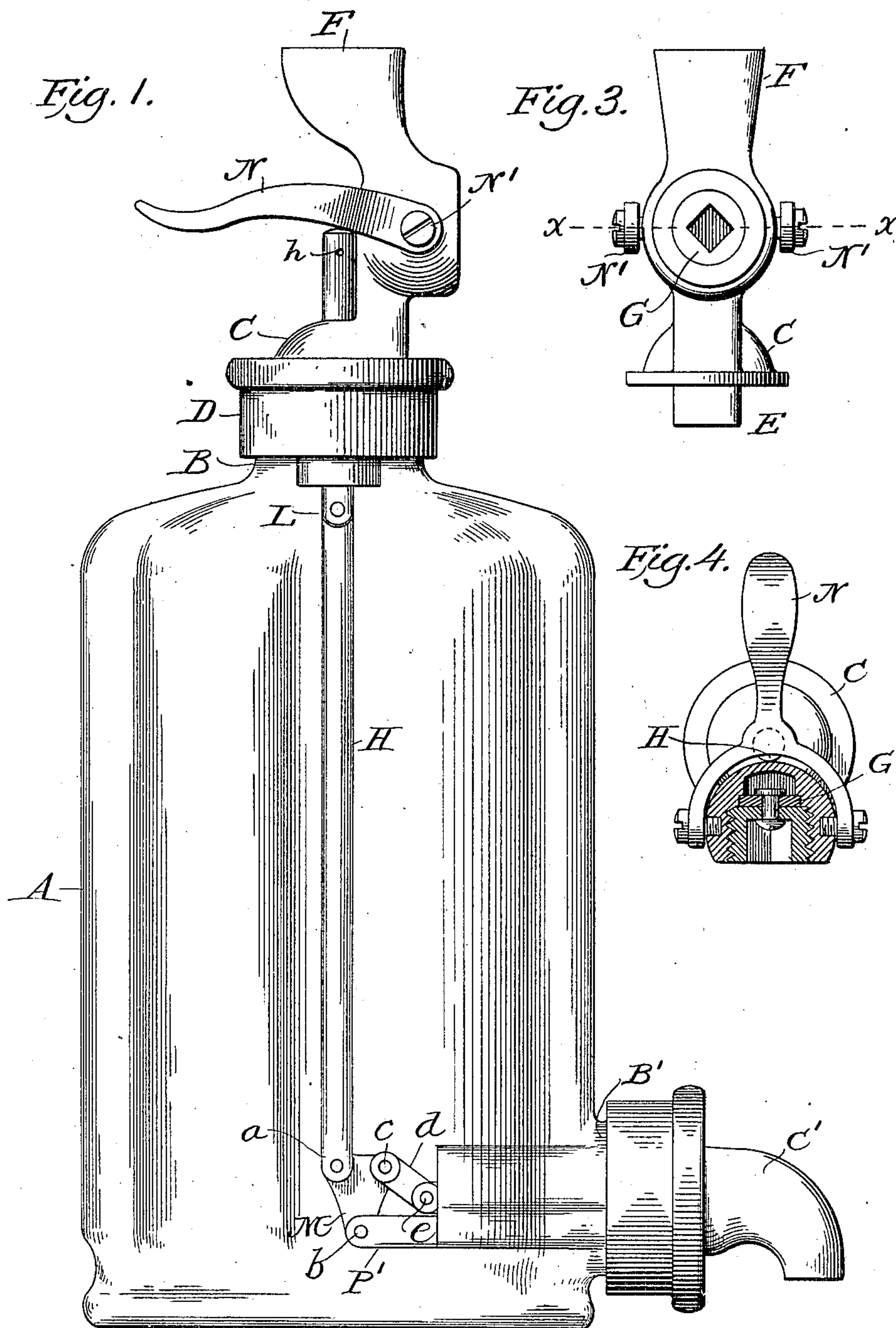
PATENTED DEC. 4, 1906.

P. J. FOULON.

VESSEL FOR CONTAINING FLUIDS UNDER PRESSURE.

APPLICATION FILED JULY 29, 1903. RENEWED MAY 6, 1906.

2 SHEETS—SHEET 1.



Witnesses  
James F. Duhamel  
William A. Ban

Peter Joseph Foulon Inventor  
By his Attorney  
James M. Hicks

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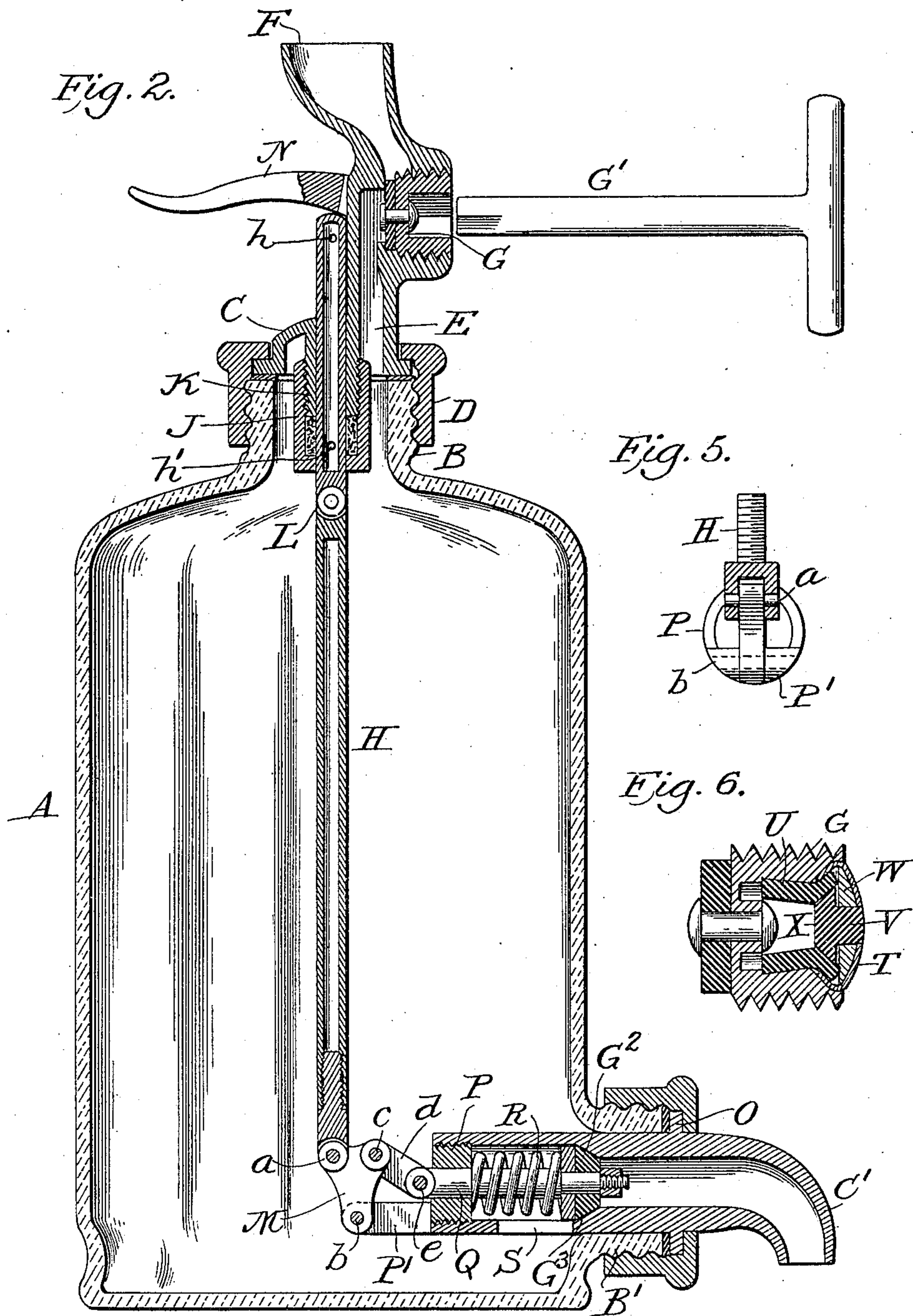
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James P. Duhamel  
Matthew A. Bass

Inventor  
Peter Joseph Foulon  
By his Attorney  
James M. Hicks



# UNITED STATES PATENT OFFICE.

PETER JOSEPH FOULON, OF UNION HILL, NEW JERSEY, ASSIGNOR OF  
ONE-HALF TO HENRY JACOB MÜLLER, OF NEW YORK, N. Y.

## VESSEL FOR CONTAINING FLUIDS UNDER PRESSURE.

No. 837,395.

Specification of Letters Patent.

Patented Dec. 4, 1906.

Application filed July 29, 1903. Renewed May 5, 1906. Serial No. 315,375.

*To all whom it may concern:*

Be it known that I, PETER JOSEPH FOULON, a citizen of the United States, residing at Union Hill, county of Hudson, State of New Jersey, have invented certain new and useful Improvements in Vessels for Containing Fluids Under Pressure, of which the following is a specification.

My invention relates to bottles which are to contain fluids under pressure; and it consists in certain elements and combinations fully set forth in and claimed at the end of this specification.

In order that those skilled in the art to which my invention appertains may understand, construct, and use my invention, I will proceed to describe it, referring to the accompanying drawings, in which—

Figure 1 is an outside elevation showing the internal operating mechanism through the glass body of the bottle. Fig. 2 is a longitudinal central section of a bottle provided with my invention, showing in section the filling and discharging apparatus. Fig. 3 is the charging-funnel and lock-valve in front view looking from right to left of Fig. 1. Fig. 4 is a top view of Fig. 3 and a cross-section of the lock-valve on line XX of Fig. 3. Fig. 5 is a view of the spider or triple-joint-lever mechanism which operates the discharge-valve apparatus. Fig. 6 shows a means for closing the keyhole to valve G when the valve G is closed.

A is the body of the bottle.

B is a screw-nozzle at the top of the bottle.

B' is a screw-nozzle at the lower part of the bottle on one of its vertical sides.

C is a dome-shaped cap tightly secured upon the top of nozzle B by a screw-cap D. This cap C is extended upward on one side of its center line, and in this extension is a channel E, leading to a funnel F at its top and at its bottom leading into the bottle A at its top. G is a valve which is constructed to open and close this channel E, so that fluid can be injected into the bottle from the funnel F, when desired, by screwing the valve off its seat, and by screwing the valve to its seat the channel E may be closed again.

G' is the key by which the valve G is operated. Instead of the key shown a safety-

lock mechanism can readily be substituted, (as a Yale lock.)

H is a vertical-rod connection which connects the top operating-lever mechanism with the bottom valve apparatus. It extends upward through an opening in the center of the dome C and through a packing-box J K, located beneath the dome C. This rod H is jointed at L, and at its bottom it takes onto a pin in a spider M, having three pivotal points *a b c* in it.

N is a forked lever which pivots on each side of the upward extension of the dome C at points opposite the center of valve G, (marked N',) and this lever rests upon the top of rod H.

C' is a spigot which projects outside of and enters the lower part of the bottle. It is provided with a flange O, by which it is secured to the outer face of nozzle B' tightly. This spigot enters the bottle through nozzle B' and at its inner end has a valve-seat G<sup>2</sup>, and it is bored out from the valve-seat G<sup>2</sup> inwardly to form an enlargement to contain the discharge mechanism and valve apparatus. It is closed at its inner end by a plug P, having an extension P', carrying a pivotal point, to which pivot *b* of the spider M is joined, so that rod H rests upon this pivotal connection *b* and extension P'. Plug P is centrally bored out and a valve-rod Q passes through it, and on the outer end of rod Q is a valve G<sup>3</sup>, fitting a valve-seat G<sup>2</sup>. A spring R is wound about valve-rod Q and bears against the inside of plug P and the valve G<sup>3</sup>, thus forcing valve G<sup>3</sup> to its seat G<sup>2</sup>. The rod Q is joined to spider M through links *d*, pivoted to the rod Q at *e* and to the spider at *c*, so that normally the spring R closes the valve G<sup>3</sup> and presses the rod H upward to its extreme height and against the under side of lever N, and when lever N is thrown downward it forces the rod H downward and draws the valve G<sup>3</sup> open, and the fluid in the bottle flows through a hole S into spigot C' and through the open valve G<sup>3</sup> is discharged outward through spigot C'. The upper end of rod H is hollow from joint L, and it has connection with the air through hole *h*. It has another hole *h'* below but inside the line of stuffing-box J K. When the



rod H is forced low enough, these holes *h h* admit air to the upper part of the bottle. This bottle is to be filled with carbonated liquids or liquids under great pressure, and it is intended to keep the gaseous pressure always above the liquid and to discharge only liquid at the bottom, without losing this gaseous pressure above the liquid. The admission of air to the bottle above described is to take place only in case the gaseous pressure is exhausted.

Fig. 6 shows a means for closing the keyhole to valve G by a rubber plug, which is inserted. This plug is composed of a tube U; a thin metal cap T, which has a central hole in it, in this hole is a stem V, and within the shell it is provided with a T-piece X. The rubber tube U is clasped at its inner end by the edges of the cap T, which are spun over it, and the T-piece X is forced through the tube U, and its stem is inserted in the hole in cap T, and the inner face of the T-piece X lies against a cap-reinforcing metal piece W. The outer circumference of the T-piece is beveled to press upon the tube U and hold it in the grasp of the flange of the cap, where it is spun over. The inner diameter of the keyhole in valve G is tapered from the outside inward from a larger to a smaller diameter, and the rubber tube U is compressed for the purpose of inserting it in the keyhole. To withdraw the plug, a bent or hooked wire is used to push the stem V inward, so that the hooked wire grasps the inside of the stem-hole and the plug is drawn out. This is a blind plug for the purpose of concealing the keyhole, so that users may not be tempted to refill the bottle, as they might do were the keyhole in plain sight.

Having now fully described my invention

and the manner in which I have embodied it, what I claim as new and as my invention, and desire to secure by Letters Patent, is—

1. In a vessel for receiving, containing, and discharging liquids under pressure, the combination with the body of the vessel of a neck and mouth at its top; a discharge-nozzle at its lower portion; a fluid-receiving channel provided with an opening and closing valve, located upon and tightly secured to said neck and over said mouth; a discharge-spigot secured tightly to and in said bottom discharge-nozzle and provided with an opening and closing valve; a means for opening said spigot - valve, from above the vessel mouth and against the internal pressure in the vessel; and means for closing said spigot-valve by a spring aided by said internal pressure; all constructed, arranged and combined to operate to receive fluid under pressure through the mouth of the vessel, to retain it, and to enable the fluid to be discharged at the bottom through the discharging-spigot, as fluid, and to retain the gases at the top of the liquid, substantially as hereinbefore specified.

2. In a mechanism for discharging fluids under pressure from a vessel, the means, substantially as described for admitting air to said vessel when desired, through the operating mechanism.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 20th day of July, 1903.

PETER JOSEPH FOULON.

Witnesses:

JAMES M. HICKS,  
NATHANIEL P. BARR.