(No Model.) 2 Sheets—Sheet 1.

J. NAGELDINGER.

SIPHON RECEPTACLE.

No. 575,932. Patented Jan. 26, 1897.

Fig. 1.

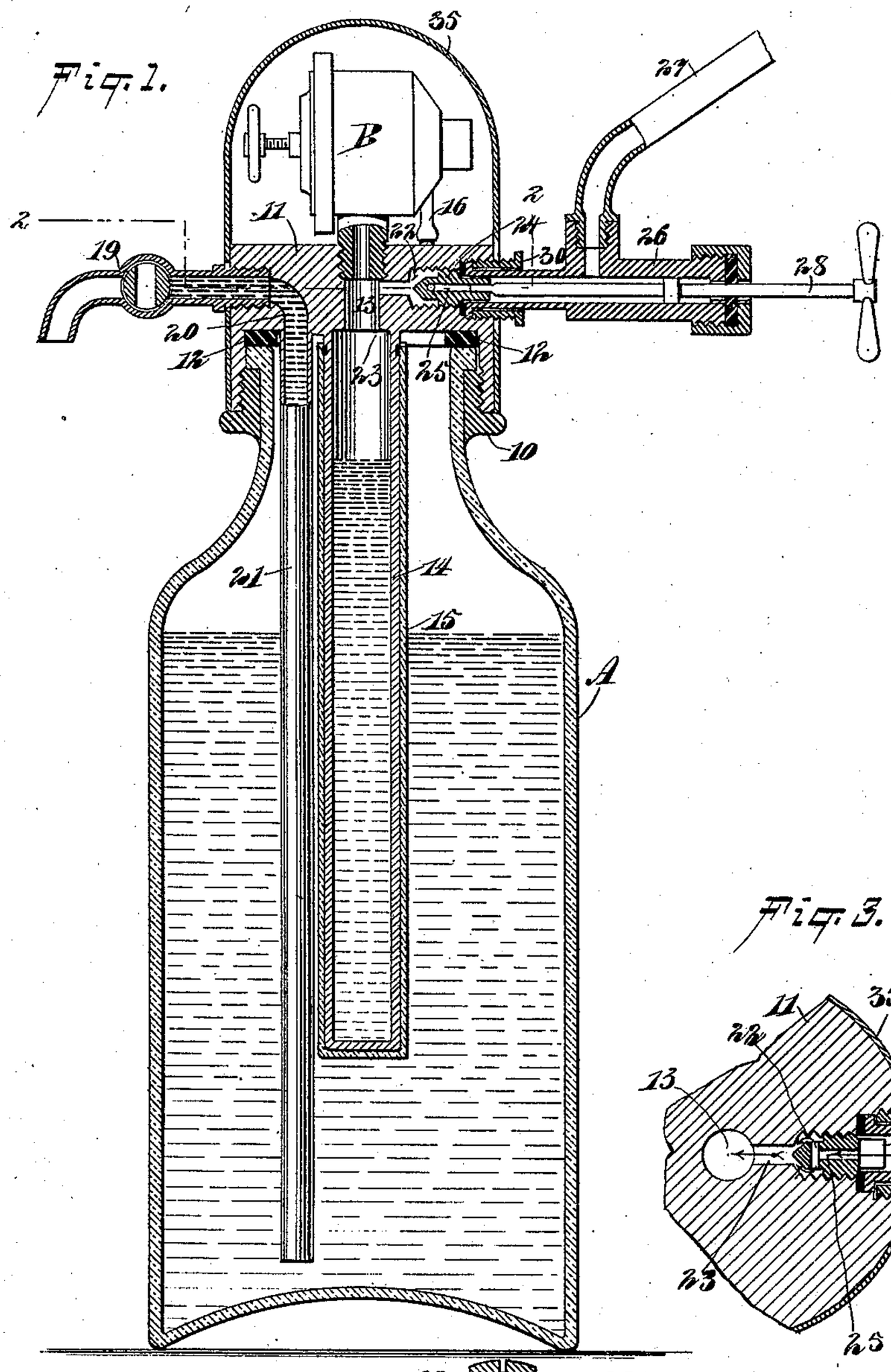
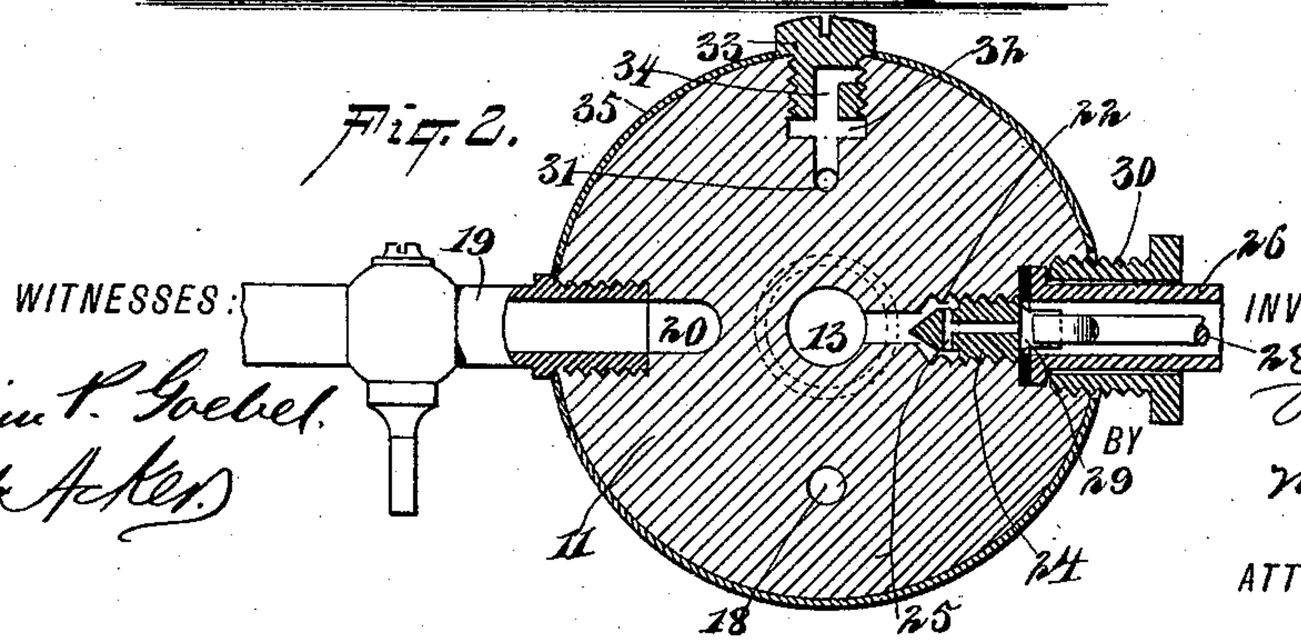


Fig. 3.

Fig. 2.



WITNESSES:

William T. Goebel.

Alfred Ackers

INVENTOR

J. Nageldinger

BY

Munn & Co

ATTORNEYS.

(No Model.) 2 Sheets—Sheet 2.

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Fig. 4.

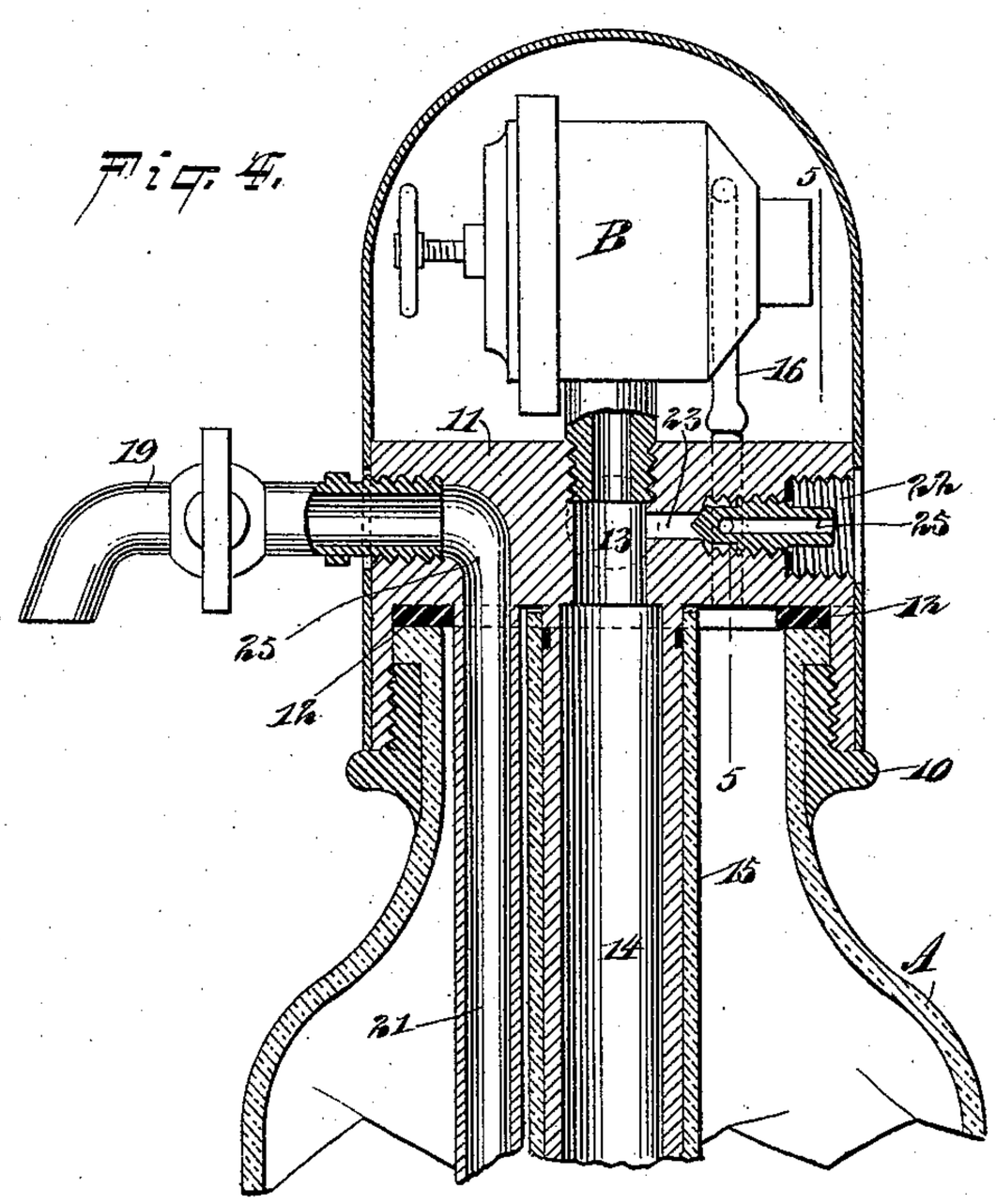
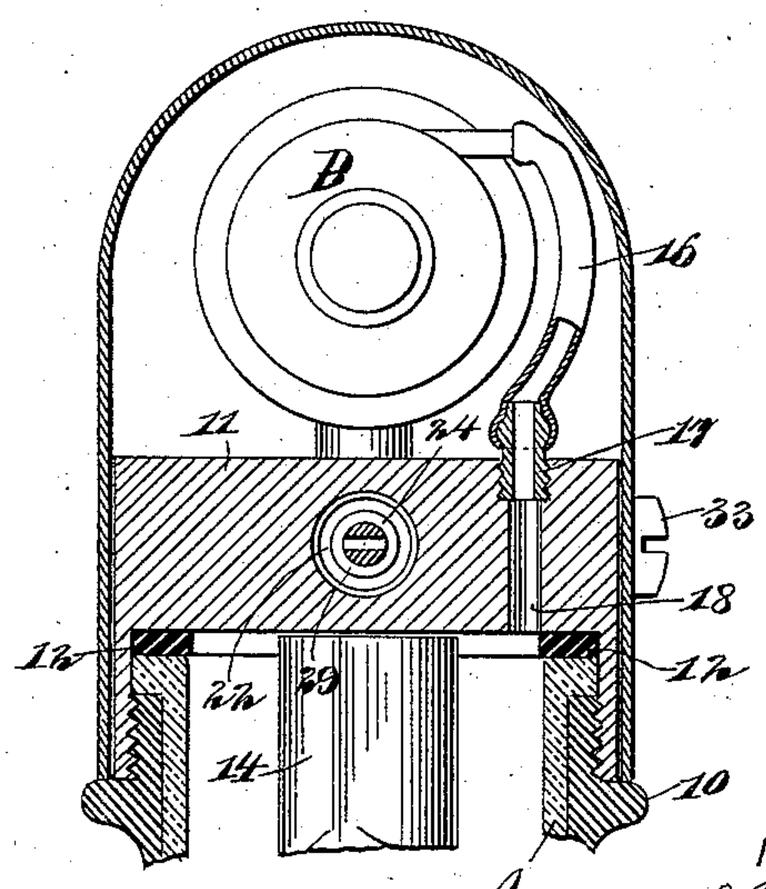


Fig. 5.



WITNESSES:

William P. Gaebel.

J. Ked. Acker.

INVENTOR

J. Nageldinger.

BY

Munn & Co

ATTORNEYS.

UNITED STATES PATENT OFFICE.

JOHN NAGELDINGER, OF NEW YORK, N. Y.

SIPHON-RECEPTACLE.

SPECIFICATION forming part of Letters Patent No. 575,932, dated January 26, 1897.

Application filed May 16, 1896. Serial No. 591,758. (No model.)

To all whom it may concern:

Be it known that I, JOHN NAGELDINGER, of New York city, in the county and State of New York, have invented a new and Improved Siphon-Receptacle, of which the following is a full, clear, and exact description.

The object of the invention is to preserve liquids of a fermentive nature in their natural state by the influence of carbonic-acid gas, and by means of the same gas to produce a siphonage from the vessel of the liquid contained therein in any desired quantity.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a vertical section through a bottle and the siphon attachment applied thereto, illustrating the parts of the attachment in position to admit of the bottle being charged with the liquid carbonic acid, the pressure-regulator being shown in side elevation. Fig. 2 is a horizontal section taken substantially on the line 2 2 of Fig. 1. Fig. 3 is a horizontal section through the cap, illustrating the valve controlling the acid-receiving cylinder released from its operating device and in position to admit a flow of gas into the cylinder. Fig. 4 is a vertical section taken practically on the same lines as the section in Fig. 1, illustrating the siphon-receptacle in condition for use; and Fig. 5 is a vertical section taken substantially on the line 5 5 of Fig. 4.

In carrying out the invention the bottle A or like receptacle adapted to contain the liquid to be served may be in the shape of the ordinary siphon-bottle illustrated, or it may have other contour, and the said bottle or receptacle is provided, preferably, with a metallic screw-sleeve 10, upon which a cap 11 is screwed, the cap bearing against washers 12, which impact upon the mouth of the bottle or receptacle A, as shown in Figs. 1 and 4. The cap has a central opening 13 made therein, and around the lower end of this opening a cylinder 14 is secured or is made integral with the cap, and this cylinder is of metal or of any approved material, being usually constructed from metal; and in order that the cylinder when made from metal shall not contaminate or act injuriously upon the liquid to be served contained in the receptacle or bottle A the said cylinder is inclosed in an outer or casing cylinder 15, made from glass or other non-corrosive substance. Both cylinders are closed at their lower ends.

A pressure-regulator B of any desired construction is located above the cap, and the inlet sleeve or nozzle of the said regulator is tapped in the cental opening 13 of the cap or otherwise secured. The pressure-regulator B may be, and ordinarily is, substantially of that construction shown in the patent granted to me, No. 519,089, and dated May 1, 1894.

The outlet of the regulator B is connected, ordinarily, by a tube 16, which may be a flexible one, with a nipple 17, the latter being tapped in an aperture 18, which extends through the cap and communicates with the interior of the vessel or receptacle A that the cap is intended to cover. The faucet 19, from which the liquid in the receptacle is to drawn, is tapped in the cap at one side and communicates with a channel 20, formed in the said cap and extending to its lower surface, and the channel is surrounded by the ordinary siphon-tube 21, made of glass or other material and adapted to extend within the vessel or receptacle A to within a predetermined distance of its bottom.

At any desired point in the cap, at one of its outer edges, a preferably horizontal valve-chamber 22 is formed, which is made, ordinarily, in two diameters, and the wall of the said chamber is threaded. The reduced threaded portion of the said wall receives a valve 24, which is conical and reduced at its inner end in order to fit in the inlet of a channel 23 and close the said inlet, the said channel being in communication with the central opening 13 in the cap leading into the cylinder 14, adapted to receive the liquid carbonic acid. This valve 24, which may be termed a "plug-valve," is provided with a preferably T-shaped channel having outlets at the sides of the reduced portion of the valve, and the outer end of the valve is provided with a slot adapted to receive a screw-driver 28, which is permanently located in a tube 26, connected by a pipe 27, of any desired character, with a

source of liquid carbonic-acid supply. This body-tube 26, or what may be termed the "liquid carbonic-acid filler," is provided at its discharge end with a sleeve 30, loosely mounted thereon, and when the cylinder 14 is to be filled with the acid the filler, which is a fixture in the shop or filling establishment or is to remain therein, is secured in the cap by means of the terminal flange and a swiveling-sleeve 30, so that its body-tube 26 may be turned in any desired direction, and the screw-driver, which is operated from the outside of the filler, is carried to an engagement with the slot 29 in the valve 24, as shown in Fig. 2, and the said valve is then unscrewed from its closing engagement with the channel 23 and the liquid carbonic acid under suitable pressure introduced into the filler will be passed through the valve to the channel 23 and from thence into the receiving-cylinder 14. The plug-valve, after the cylinder has received its charge, is closed by means of the said screw-driver, and the filler is then removed, leaving the parts of the attachment in the position shown in Fig. 4.

The liquid that is to be dispensed is forced into the receptacle by means of a suitable pressure apparatus connected with the faucet 19, and in order that the air may escape from the said vessel or receptacle to admit the liquid a channel 32 is made horizontally in the cap, communicating with a vertical channel 31, extending through to the bottom of the cap, and a plug 33 normally closes the channel 32, which is preferably horizontally placed, and the said plug is provided with a channel or opening 34, which, when the plug is screwed outward, will communicate with the outside atmosphere and permit the air in the vessel to mingle with the same.

The regulator B is set to a predetermined amount of pressure, and as a certain amount of carbonic-acid gas will always be above the liquid in the cylinder 14 the pressure of the said gas controlled by the regulator will be exerted upon the upper surface of the fluid, and as the fluid in the vessel is withdrawn a fresh supply of gas from the cylinder 14 will be conveyed over the liquid in the vessel, so that there will be constantly a uniform pressure thereon, and each and every glass of liquid drawn from the receptacle will be as sparkling as the first glass withdrawn.

The device is exceedingly simple, it is durable and economic, and is especially adapted for preserving such liquids as beer, wines, and even mineral or ordinary water.

The regulator and cap are entirely concealed and protected by a cover 35, which after the various parts of the attachment are placed in position it is not designed nor is it at all necessary to remove.

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

1. The combination with a vessel, of a cap for the same having a central opening, the said vessel being provided with a siphon-tube and controlling outlet-faucet, a cylinder adapted to receive liquid carbonic-acid gas and communicating at its upper end with the central opening in the cap, a casing-cylinder of a non-corrosive material surrounding and tightly fitting the gas-receiving cylinder, a regulator connected with the gas-receiving cylinder and with the interior of the main receptacle, and a valve located in a valve-chamber formed in the said cap and controlling the inlet to the said gas-receiving cylinder, as and for the purpose specified.

2. The combination with a vessel, of a cap for the same provided with a central opening, the said vessel being provided with a siphon-tube and controlling outlet-faucet, a cylinder adapted to receive liquid carbonic-acid gas and communicating with the central opening in the said cap, the said cylinder being surrounded by a casing-cylinder of a non-corrosive material, a regulator having its inlet sleeve or nozzle connected with the central opening of the cap and having its outlet connected by a tube with a nipple secured in the said cap and communicating by means of an aperture extending through the cap with the interior of the main receptacle, a valve-chamber formed in the said cap and connected by a channel with the central opening in the cap, a valve controlling the inlet through said channel to the gas-receiving cylinder, and means for controlling the said valve from the exterior of the said cap, as and for the purpose specified.

3. In a siphon-receptacle, the combination with a cap for said receptacle provided with a valve-chamber having its walls threaded and a screw-valve in said chamber controlling the inlet of a gas to the receptacle, of a filler provided with a body-tube having an inlet for the reception of gas and an outlet adapted for communication with the said valve-chamber, the said body-tube being provided at its outlet end with a loosely-mounted screw-threaded sleeve, adapted to be screwed into the outer portion of the valve-chamber, and a device located in the body portion of the filler and extending beyond the exterior thereof and arranged for turning engagement with the said screw-valve, as and for the purpose specified.

4. A filler for the purpose described, consisting of a body-tube having a branch for connection with a source of supply, the said body-tube being provided at its discharge end with an externally-threaded sleeve adapted to be connected with the receptacle to be filled and loosely mounted on the said body-tube, and said tube being swiveled in its relation to the receptacle whereby the said tube may be turned in any desired direction, and a screw-driver mounted to turn in the body of the filler, as and for the purpose specified.

5. A cap for a siphon-receptacle having an interiorly-threaded valve-chamber 22 of two diameters with a valve-seat between them, a

conical screw-valve 24 adapted to close on said seat and provided with a channel extending longitudinally and transversely through the same, and a seat for a screw-driver in its outer end, a tube 26 detachably connected to the valve-chamber and having a stuffing-box at its outer end and a lateral inlet 27, and a valve-adjusting screw-driver 28 arranged within the tube 26, operated from the exterior of the same, and made detachable with it from the chamber substantially as shown and described.

6. The combination of the cap having interiorly-threaded valve-chamber 22 of two diameters with a seat between them, the carbonic-acid filling-tube 26 having terminal flange and swiveling sleeve 30 exteriorly threaded and detachably screwing into the valve-chamber of the cap and provided with a lateral inlet 27, the conical and exteriorly-threaded valve 24 having longitudinal and transverse channel and screw-driver seat in its outer end, and a valve-adjusting screw-driver tightly packed in the filling-tube and made detachable with it, whereby the filling-tube may be rotated after connection to bring its inlet-tube into convenient relation to the carbonic-acid-reservoir connection, substantially as and for the purpose described.

7. The combination with a siphon-receptacle, of a cap 11 having a central passage-way 13 interiorly threaded, a valve-chamber 22 of two diameters communicating laterally with the central passage-way and having a channeled and conical screw-valve, a pendent carbonic-acid cylinder attached to the cap at the lower end of the central passage-way, a regulator arranged vertically above and communicating with said central passage-way, and an external concentric inclosing cap, substantially as and for the purpose set forth.

8. The combination with a siphon-receptacle, of a cap for the same having a pendent carbonic-acid receptacle extending down into the siphon-receptacle and provided with a closely-fitting exterior jacket or covering, of non-corrosive material, said jacket and carbonic-acid receptacle being wholly sustained in a pendent position by the cap, substantially as and for the purpose described.

JOHN NAGELDINGER.

Witnesses:
J. FRED. ACKER,
JNO. M. RITTER.