(No Model.)

C. HATTON.

APPARATUS FOR PRODUCING AND CONTAINING AERATED LIQUIDS.

No. 519,604. Patented May 8, 1894.

Fig. 2.

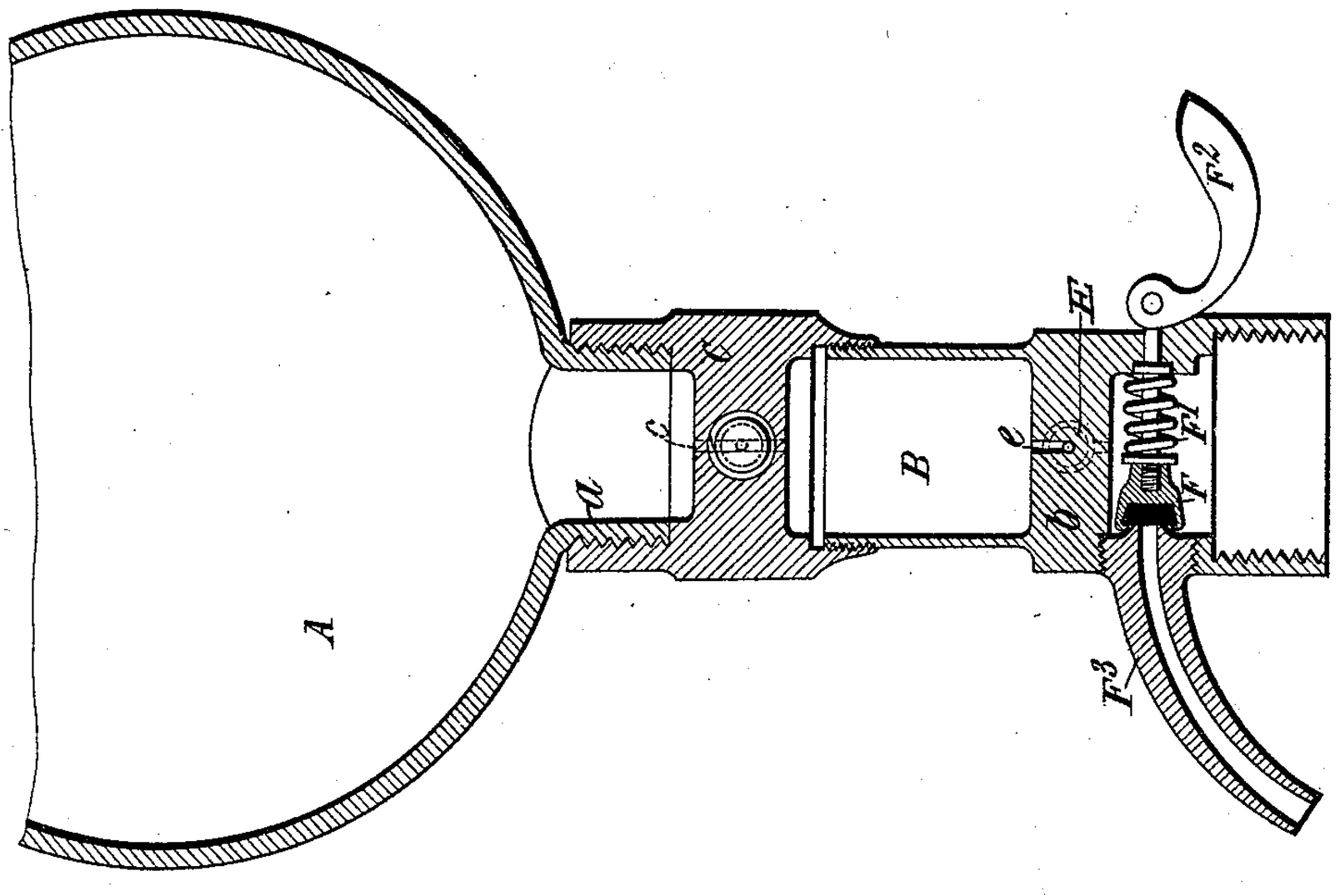
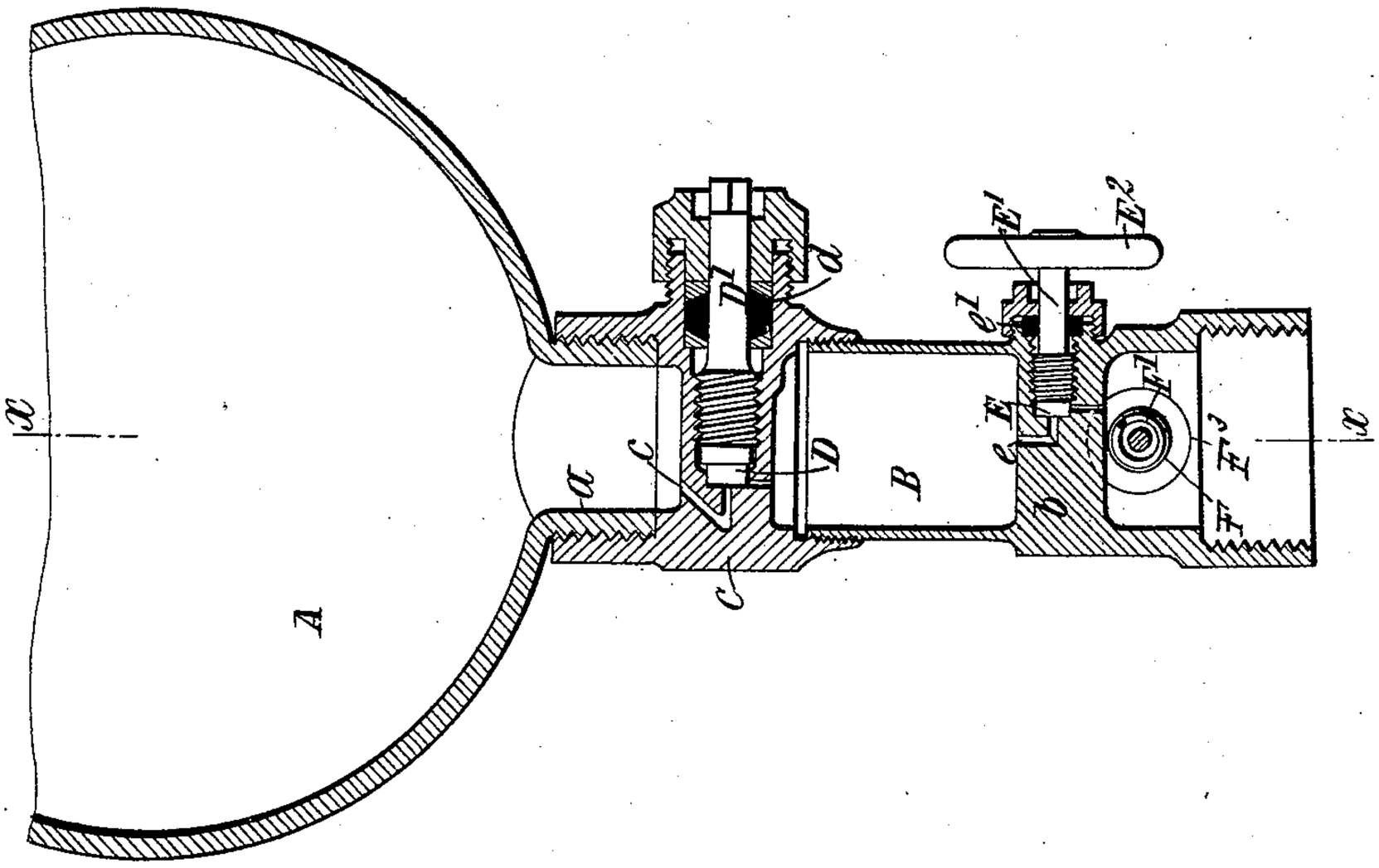


Fig. 1.



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APPARATUS FOR PRODUCING AND CONTAINING AERATED LIQUIDS.

SPECIFICATION forming part of Letters Patent No. 519,604, dated May 8, 1894.

Application filed June 20, 1893. Serial No. 478,250. (No model.)

To all whom it may concern:

Be it known that I, CHRISTOPHER HATTON, gentleman, a subject of the Queen of Great Britain, and a resident of Clapham, London, England, have invented certain new and useful Improvements Relating to Apparatus for Producing and Containing Aerated or Gaseous Liquids, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to improved portable apparatus for aerating or supplying carbonic acid or other gas to bottles or similar vessels containing mineral waters, wine, beer, or the like, and has for its object to provide a portable vessel or reservoir adapted to contain a quantity of carbonic acid gas under pressure and of a quantity sufficient to charge a number of the liquid containing vessels, and a stopper for the liquid containing vessel, having a measuring chamber and adapted to be connected to both the gas reservoir and the liquid containing vessels, and provided with valves controlling the communication between said reservoir and vessels, and a valved discharge nozzle communicating with the liquid containing vessel, whereby a portion of the gas may be measured off from the gas reservoir and discharged into the siphon or other vessel.

To these ends my invention consists in the novel construction and arrangement of parts hereinafter fully described and definitely pointed out in the claim following the description.

In the accompanying drawings, Figure 1 is a central longitudinal section of aerating apparatus constructed according to my invention and adapted to be applied to a siphon. Fig. 2 is a central longitudinal section taken on the line *x x*, Fig. 1.

Like letters of reference indicate corresponding parts in the drawings.

Referring to Figs. 1 and 2, A is the principal container for holding the gas under great pressure say forty or fifty atmospheres as may be thought desirable, but preferably in a liquid form. It may be of cylindrical or better still spherical shape for greater strength and is constructed preferably of steel. I find it convenient to make said containers of such a size that they will hold an amount of gas sufficient to charge an ordinary siphon say forty times, though of course I do not confine myself to this size.

B is a measuring vessel or secondary container of a size adapted to contain one charge of gas. It is obvious in this type there is no restriction as to the precise form of this secondary container, the essential condition being that it measures off an amount of gas sufficient for one charge. Said vessel may be constructed in one with the metal cap or stopper of the siphon, as shown, or it may be constructed to be screwed or otherwise secured thereto. The bottom wall *b* of the vessel B separates the measuring chamber from the interior of the siphon.

C is a coupling piece for connecting the vessel B to the suitably prepared mouth *a* of the container A.

c is a thoroughfare made through the piece C and forming a communication between the vessel B and the container A.

D is a screw-down valve adapted to close said thoroughfare *c*.

d is a packed gland to prevent escape of gas around the spindle D′ of the valve D. I prefer to form a square on the outer end of the spindle D′ and to provide a key to fit same to be used for opening and closing the valve.

e is a thoroughfare forming a communication between the measuring chamber B and the siphon.

E is a screw-down valve for opening and closing said thoroughfare.

e′ is a packed gland for preventing escape of gas around the spindle E′ of the valve E. E^2 is a small hand wheel for turning said spindle to open and close the valve.

F is the siphon valve; F′ is the spring for maintaining it against its seat; F^2 is the lever for opening the valve; F^3 is the siphon spout. These parts are constructed substantially as heretofore and form no part of the present invention.

The method of charging the siphon with gas is as follows, that is to say, the siphon having been filled with water, or mineral water or other liquid up to the proper or desired level, the valve E is shut down, and the valve D is opened to allow the vessel B to fill with gas. Then the valve D is shut down tightly, and the valve E is opened which allows the

charge of gas in the vessel B to pass into the siphon in order to aerate the contents of the same. The valve E is then again closed and the siphon after being shaken a little is ready for use, the aerated liquid being drawn off through the spout F^3 in the usual manner. The process of charging successive contents of the siphon can be repeated until the charge of gas in the container A is exhausted, whereupon the whole apparatus can be removed from the siphon and recharged by the ordinary gas compressors. The container A can be recharged at any time by disconnecting the coupling-piece C from the part B and connecting the said coupling piece or socket with the compressor, or it can be recharged by connecting the screwed part of the siphon head with the said compressor.

What I claim is—

The combination with a portable vessel for containing a store of gas and a vessel for containing the liquid to be aerated, of a stopper for the liquid containing vessel adapted to be connected with said vessel and having a measuring chamber, valves arranged at the opposite ends of said chamber and controlling the communication between said chamber and the gas and liquid containing vessels, means for independently operating said valves, and a discharge nozzle communicating with the liquid containing vessel, and provided with a valve, substantially as shown and described.

In witness whereof I have hereunto set my hand this 5th day of June, 1893.

CHRISTOPHER HATTON.

Witnesses:

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