

No. 613,804.

Patented Nov. 8, 1898.

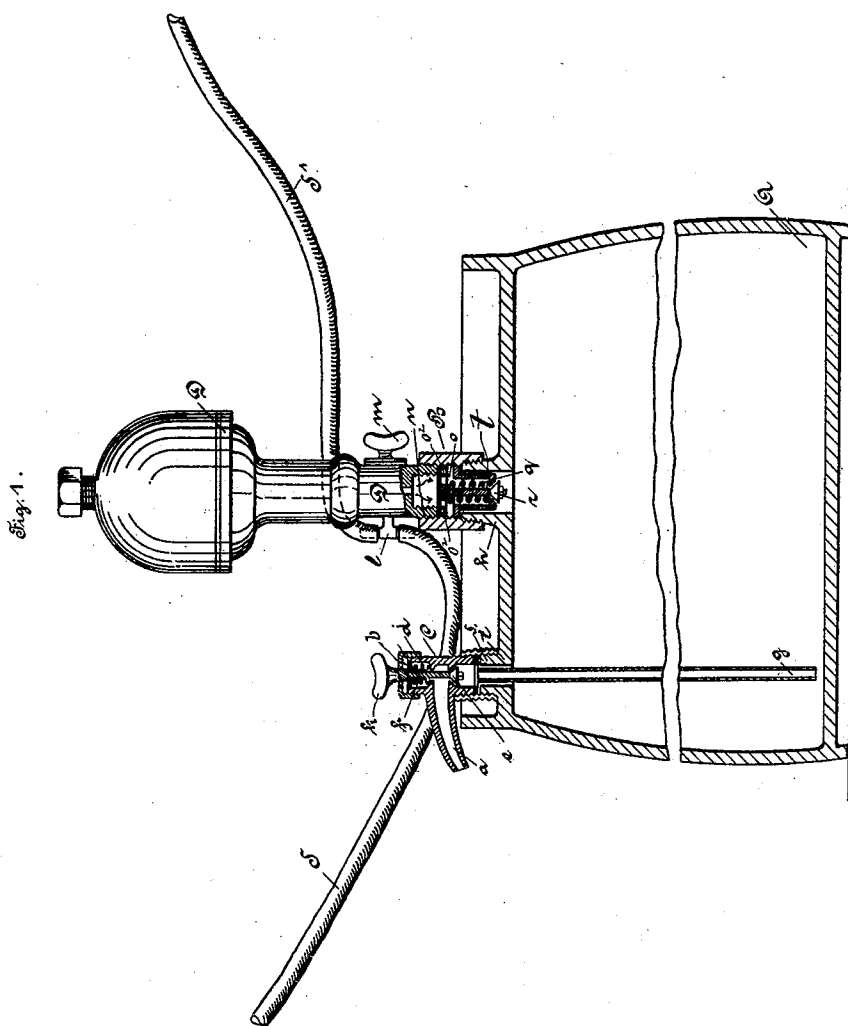
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RECEPTACLE FOR DRAWING OFF LIQUIDS BY MEANS OF LIQUID CARBONIC ACID.

(Application filed Nov. 12, 1897.)

(No Model.)

3 Sheets—Sheet 1.



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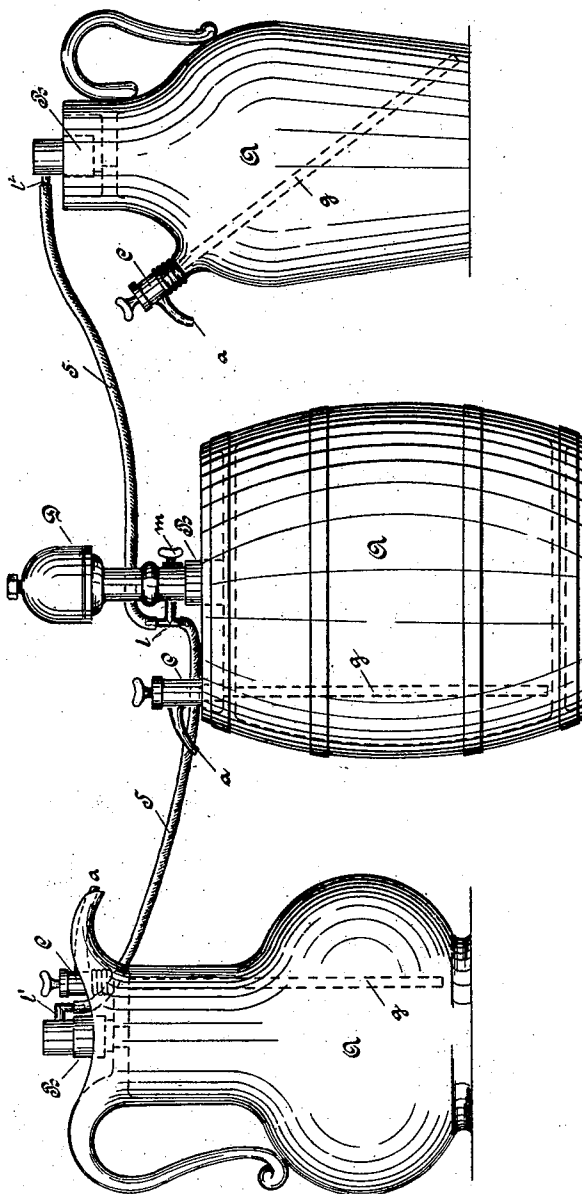
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Fig. 2.



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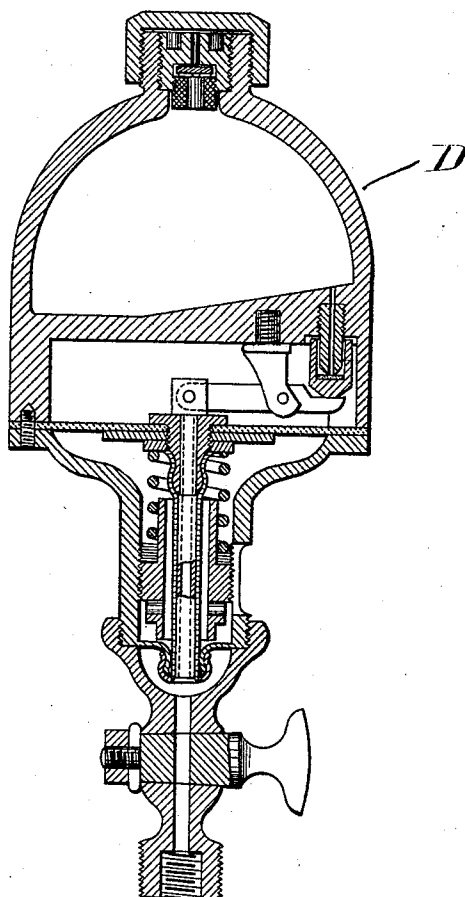
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3 Sheets—Sheet 3.

Fig. 3.



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RECEPTACLE FOR DRAWING OFF LIQUIDS BY MEANS OF LIQUID CARBONIC ACID.

SPECIFICATION forming part of Letters Patent No. 613,804, dated November 8, 1898.

Application filed November 12, 1897. Serial No. 658,307. (No model.)

To all whom it may concern:

Be it known that I, ALBERT MÜLLER, a subject of the Emperor of Germany, and a resident of Berlin, in the Empire of Germany, have invented certain new and useful Means and Improvements in Connection with Receptacles for Drawing off Liquids by Means of Liquid Carbonic Acid, of which the following is a full, clear, and exact description.

The present invention consists of improvements in jugs and other household receptacles by means of which beer and other liquids may be drawn off from the same through the agency of liquid carbonic acid; and the device consists of the details of construction, as hereinafter more particularly set forth.

According to the present invention a small receptacle filled with liquid carbonic acid and provided with a reducing-valve is attached to a cover made in one with or air-tightly closed onto the receptacle in question, which is further provided with a valve or tap for letting off the liquid contained in the said receptacle, said liquid being driven out through the tap or valve by the pressure of the carbonic-acid gas in the receptacle.

In order to render the present specification more easily intelligible, reference is had to the accompanying drawings, in which similar letters denote similar parts throughout the several views.

Figure 1 is a vertical section through a cask-shaped receptacle for beer or the like, showing the arrangement of the carbonic-acid receptacle thereon. Fig. 2 is a side elevation of three receptacles in connection. Fig. 3 is a section through one form of reducing-valve which may be employed.

According to the present invention any kind of household receptacle whatever—such as jugs or pitchers of porcelain, earthenware, or glass or metal—may be employed, the same being provided with a hermetically-sealed cover having two nozzles thereon, as at *s* and *h*, one of said nozzles being for the reception of the carbonic-acid chamber and the other for the tap through which the contents of the receptacle are drawn off. The carbonic-acid chamber *D* is filled with liquid carbonic acid and provided with a suitable reducing-valve, one form of which is shown at Fig. 3, but further description of the same is not neces-

sary, owing to its being fully described in another application, and a downwardly-projecting stem having at its lower end an exterior screw-thread adapted to engage an interior screw-thread *n* of a fitting screwed to the central nozzle *h* of the receptacle. The said fitting *B* is provided with an interior downwardly-extending tubular stem *t*, the lower end of which forms a seating for a conical or other valve *r*, having an upwardly-projecting stem fast to a horizontal plate *o*, having two small orifices *o*². When the reducing-valve stem is fitted to the sleeve *B*, the stem of the same depresses the plate of the valve and keeps the same open while the carbonic acid flows into the receptacle; but if it is required to remove the fitting and reducing-valve and to apply it to another receptacle and the same is taken off the fitting *B* the valve will be immediately closed by the interior pressure and by the action of its spring. Thus it will be seen that by means of the present arrangement of the check-valve the reducing-valve may be used in connection with any number of receptacles and may be fitted to or taken off the same at any time without disturbing their operation. Thus, for instance, a half-filled receptacle may be recharged, if desired. The downwardly-extending end of the stem of the chamber *D* is provided with a cock *m*. Normally the valve *r* will be pressed upwardly and held closed by the interior pressure of the beer in the receptacle.

In order to fill the receptacle, the beer may be poured through the fitting *B*, or the latter may be taken off and the beer poured into the jug. In the latter case the fitting should then be replaced and the carbonic-acid receiver or chamber screwed into the upper end of the fitting or sleeve *B*. When the cock *m* is opened, carbonic acid will pass into the receptacle and press on the upper surface of the liquid therein, forcing the same up the pipe *g*, which extends nearly to the bottom of the receptacle, through the valve *e*, when the same is opened by hand, and out at the spout *a* into a glass or other receptacle. The cock or valve *e* is mounted in the housing *C*, screwed to the nozzle *s* of the beer-jug cover, said housing having therein a seat for the valve *e*, against which the same is normally

held by means of a spring *d*, bearing against a plate *b* on the valve-sleeve, said stem carrying at its upper end a button *k*, which may be depressed by hand. Within the spring *d* 5 is mounted on the stem of the valve *e* an india-rubber sleeve *f*, adapted to engage against a seating formed in the housing *C* when the valve is depressed and prevent the beer from escaping through the cover *b*. The valve *r* 10 is further provided with a spring *g*, which tends to normally hold the same against its seating. When the carbonic acid passes through the holes *o*² of the plate *o*, it opens the valve *r* against the pressure of its spring. 15 When the button *k* is depressed, the beer will be forced up the pipe *g* and out at the spout *a*. The housing *C* may be secured to the nozzle *s* by means of a sleeve *i*, and the cap is tightly screwed to the upper part of the housing at *f*. 20 When one carbonic-acid chamber is to be used for several receptacles, which may contain different sorts of beer, the stem of the chamber *D* is advantageously provided with a T-piece, as at *l*, to which a hose-pipe or india-rubber tube *S* is attached, which leads to 25 the nozzle *l*² of the next receptacle or to the T-piece *L'* of the next chamber, as at Fig. 2.

I claim as my invention—

1. A device for drawing off liquids from ordinary receptacles consisting of an air-tight 30 cover to the receptacle, having mounted thereon a draw-off cock with tube extending to ap-

proximately the bottom of the said receptacle, and having further a housing *B* mounted thereon with downwardly-opening check- 35 valve, having a plate at its upper end, an internal screw-thread to said housing, a reducing-valve having a stem with external thread to fit said sleeve and depress said plate when the said stem is screwed in the housing and 40 hold said valve open in the manner and for the purpose substantially as described.

2. The combination of a receptacle having an air-tight cover, two lugs or nozzles on said cover, a downwardly-opening spring-pressed 45 valve in one nozzle and a carbonic-acid receiver screwed onto the said nozzle above said valves a stop-cock above said valve in the stem of the receiver a T-piece in the stem of said receiver below said stop-cock, and 50 tubes in connection therewith to communicate with other receptacles, an outflow-valve screwed to the second nozzle a downwardly-opening spring-pressed valve therein and downwardly-extending tube and spout there- 55 on and means for opening said valve as described.

In witness whereof I have hereunto set my hand in presence of two witnesses.

ALBERT MÜLLER.

Witnesses:

HENRY HASPER,
W. HAUPT.