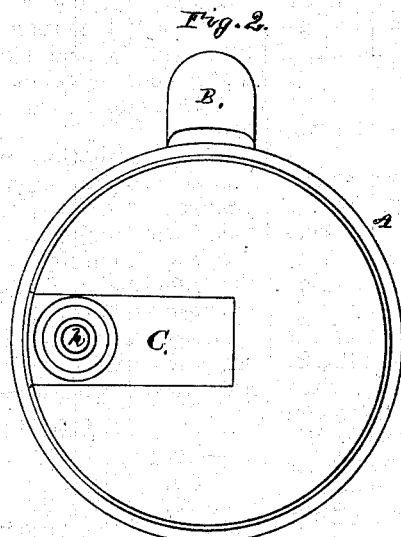
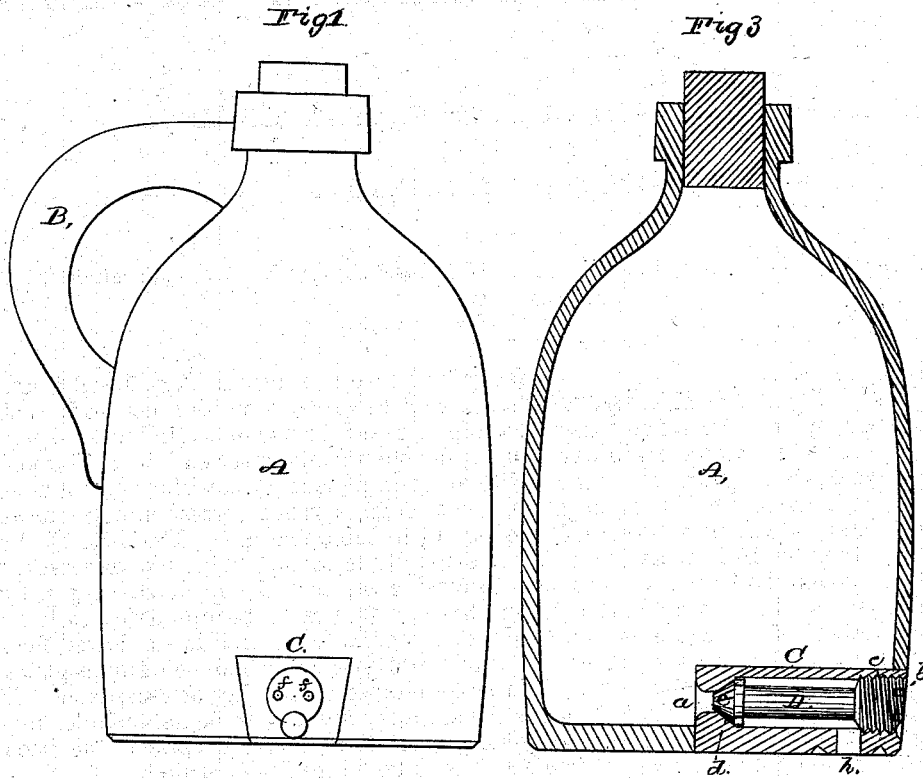


T. C. HARGRAVE.

JUGS, &c.

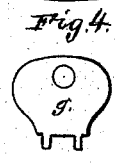
No. 186,557.

Patented Jan. 23, 1877.



Witnesses  
Geo Gray  
J. W. Hales

Thomas C. Hargrave  
by his attorney  
J. R. Hales



# UNITED STATES PATENT OFFICE.

THOMAS C. HARGRAVE, OF BOSTON, MASSACHUSETTS.

## IMPROVEMENT IN JUGS, &c.

Specification forming part of Letters Patent No. **186,557**, dated January 23, 1877; application filed June 23, 1876.

*To all whom it may concern:*

Be it known that I, THOMAS C. HARGRAVE, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Jugs, &c.; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

The object of my invention is to provide a simple and efficient receptacle for containing ether or other volatile fluid or liquid charged with gas, and enabling the same to be drawn therefrom with little or no waste of the fluid; and my invention consists in the arrangement of a case within and near the bottom of the receptacle, such case provided with induction and eduction openings and a valve, whereby the flowage of the fluid may be regulated, as may be desirable.

In such drawing, Figure 1 denotes a side elevation, Fig. 2 a bottom view, and Fig. 3 a vertical and transverse section, of a jug constructed in accordance with my invention. Fig. 4 is a side view of the key for actuating the valve, to be hereinafter described.

In the drawings, A denotes a jug of the ordinary form, and provided with a handle, B. Within a space formed within the body of the jug, and on a plane with the bottom surface, I affix a closed metallic case, C, such having an induction-opening, *a*, near its lower inner end, as shown in Fig. 3. D is a valve-stem, which passes through an opening, *b*, on the front

face of the case, as shown in Figs. 1 and 3, and has a conical valve, *c*, on its inner end, such having its seat *d* formed on the induction-opening *a*, the stem at its outer end being formed with an enlargement, *e*, on which is cut a male screw, to engage with a corresponding female screw cut in the opening *b*. The head of the valve-spindle is formed with two recesses, *f*, to receive the forked end of the key *g*, by which the valve is to be operated. *h* is an eduction-opening, arranged in the lower face of the case C, its outer end being on a plane with the bottom of the jug or receptacle. E is the stopper, which is to be detachable, but which, after the jug or receptacle has been filled, is to be hermetically sealed.

I would remark that in some instances it may be desirable to vent the jug or receptacle. In such cases a vent or opening may be made through the stopper, and provided with a stop cock or valve.

Having described my invention, what I claim is—

The combination, with a jug or other receptacle for containing a volatile fluid or liquid charged with gas, of a closed case, C, provided with induction and eduction openings, a valve, *c*, and means for operating the latter, the whole being substantially as and for the purpose set forth.

In testimony that I claim the foregoing as my own invention I affix my signature in presence of two witnesses.

THOMAS C. HARGRAVE.

Witnesses:

F. P. HALE,  
FRANK C. HALE.