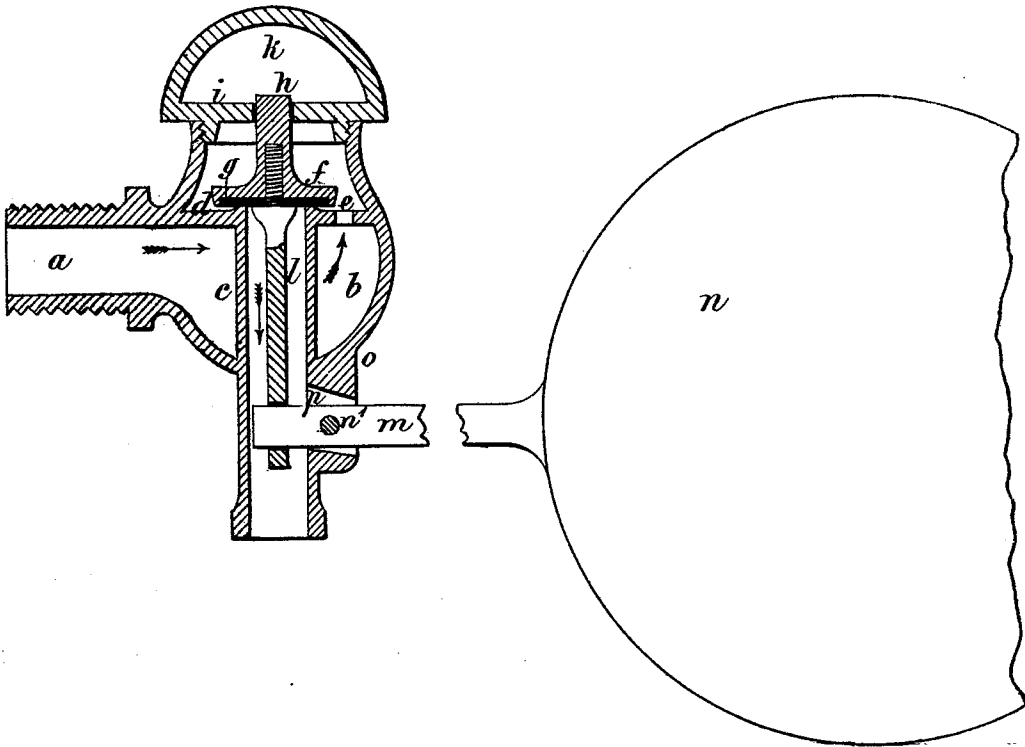


G. BUTLER.
VALVES FOR TRAPS

No. 183,125.

Patented Oct. 10. 1876.



Witnesses
Henry Gowenlock
Harry Smith

George Butler
by his Attorneys
Hudson and Son

UNITED STATES PATENT OFFICE.

GEORGE BUTLER, OF SOUTHWARK, ENGLAND.

IMPROVEMENT IN VALVES FOR TRAPS.

Specification forming part of Letters Patent No. **183,125**, dated October 10, 1876; application filed August 21, 1876.

To all whom it may concern:

Be it known that I, GEORGE BUTLER, of Southwark, in the county of Surrey, England, engineer, have invented Improvements in Valves or Cocks, of which the following is a specification:

The object of my invention is to so construct a ball or other valve as to cause the flow of liquid to assist the action of the valve and render it steady; and this object I attain by the valve shown in the accompanying drawing, the figure in which represents a sectional view of an automatic ball-valve, although it will be evident that my invention may be applied to valves of different kinds.

Referring to the drawing, *a* is the inlet-branch, terminating in an enlarged chamber, *b*, through the center of which extends the outlet-branch *c* to above the level of the said inlet. At the upper end of the outlet-branch *c* I form a partition or diaphragm, *d*, which extends across between the exterior of such outlet-branch and the side of the chamber *b*, and is provided with one or more openings, *e*. By this arrangement a sufficient area of passage is provided by the opening or openings *e* for the flow of the liquid, while at the same time the partition *d* exercises a restrictive action upon the incoming fluid, and thereby prevents any shaking of the valve. The valve

proper consists of a disk, *f*, of metal, provided on its under side with a sunken washer, *g*, of leather, india-rubber, or other suitable material, and having on its upper side a stem or projection, *h*, which passes through an opening formed in a cover, *i*, fitted to the top of the chamber. A spindle, *l*, attached to the under side of the valve, passes down the interior of the outlet-branch *c*, and is connected at its lower end to the short arm of the lever *m*, carrying the ball or float *n*. This lever, which is by preference pivoted at *n'* to a lug, *o*, formed on the exterior of the outlet-branch *c*, as shown, passes through an opening, *p*, in the outlet, and enters a slot in the lower end of the valve-spindle *l*, so that the rise and fall of the ball or float *n* in the tank operates the valve *f*.

I claim as my invention—

The combination of the valve *f*, inlet *a*, and enlarged chamber *b*, with the outlet *c* projecting through the said chamber, and with the partition *d*, having an opening or openings, *e*, as and for the purpose set forth.

In witness whereof I have signed my name to this specification in the presence of two subscribing witnesses.

G. BUTLER.

Witnesses:

FREDK. C. DYER,
JOHN JAMES.