

(No Model.)

2 Sheets—Sheet 1.

P. KELLER.

CARBURETOR.

No. 353,311.

Patented Nov. 30, 1886.

Fig. 1.

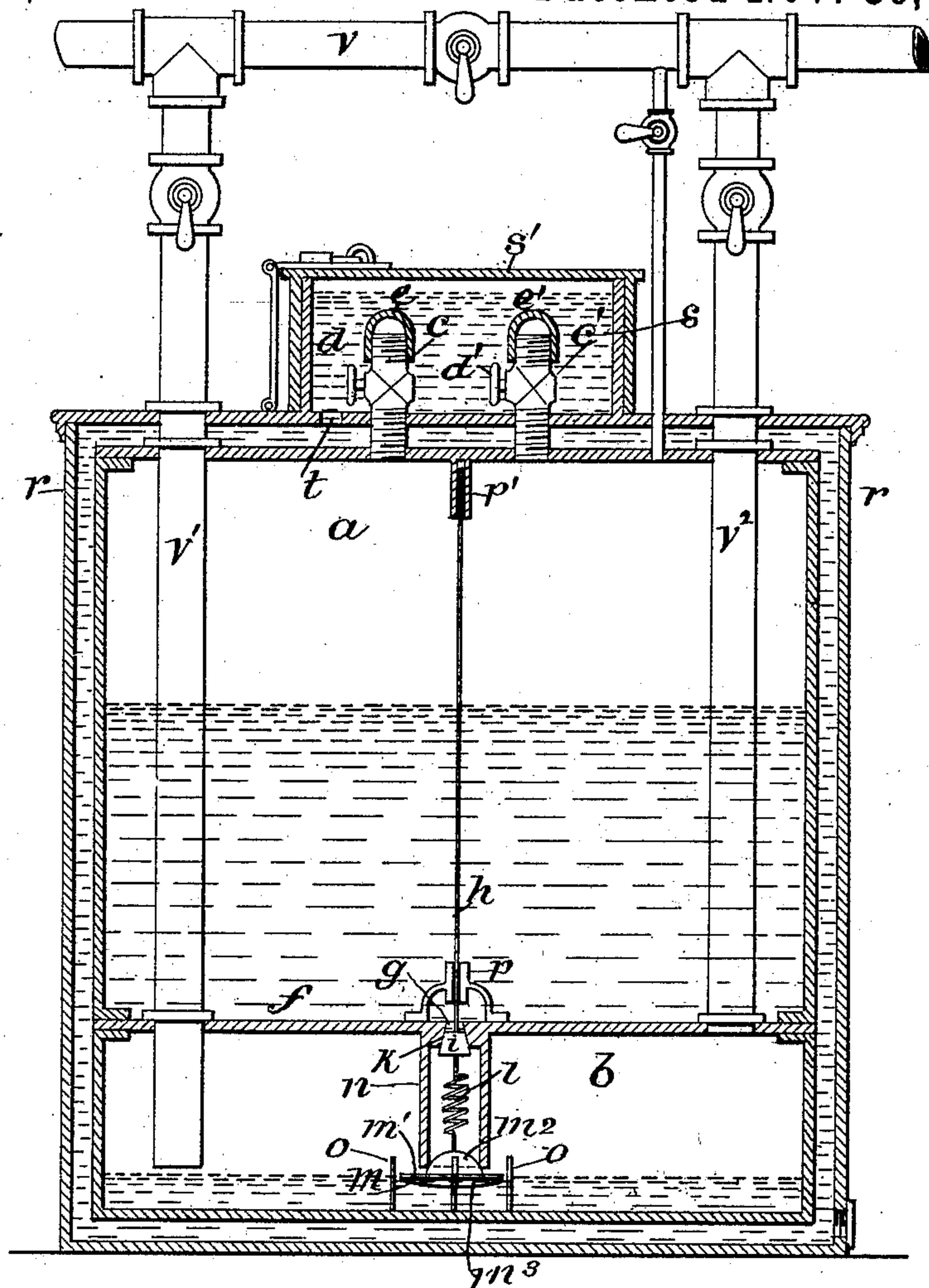
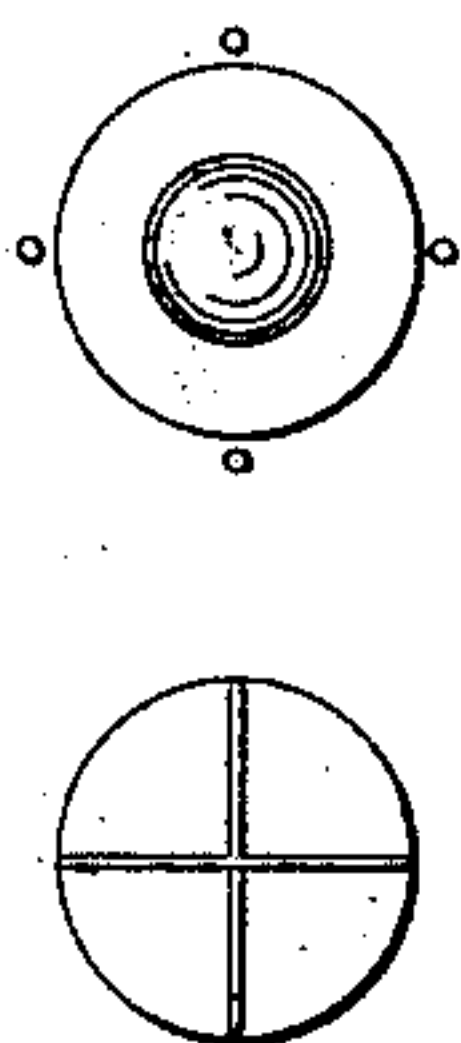


Fig. 2.



ATTEST:

J. A. Hurdle
Edwin Bolitho.

INVENTOR:

Peter Keller
Per *J. A. Hurdle*
att'y

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2 Sheets—Sheet 2.

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Fig. 3.

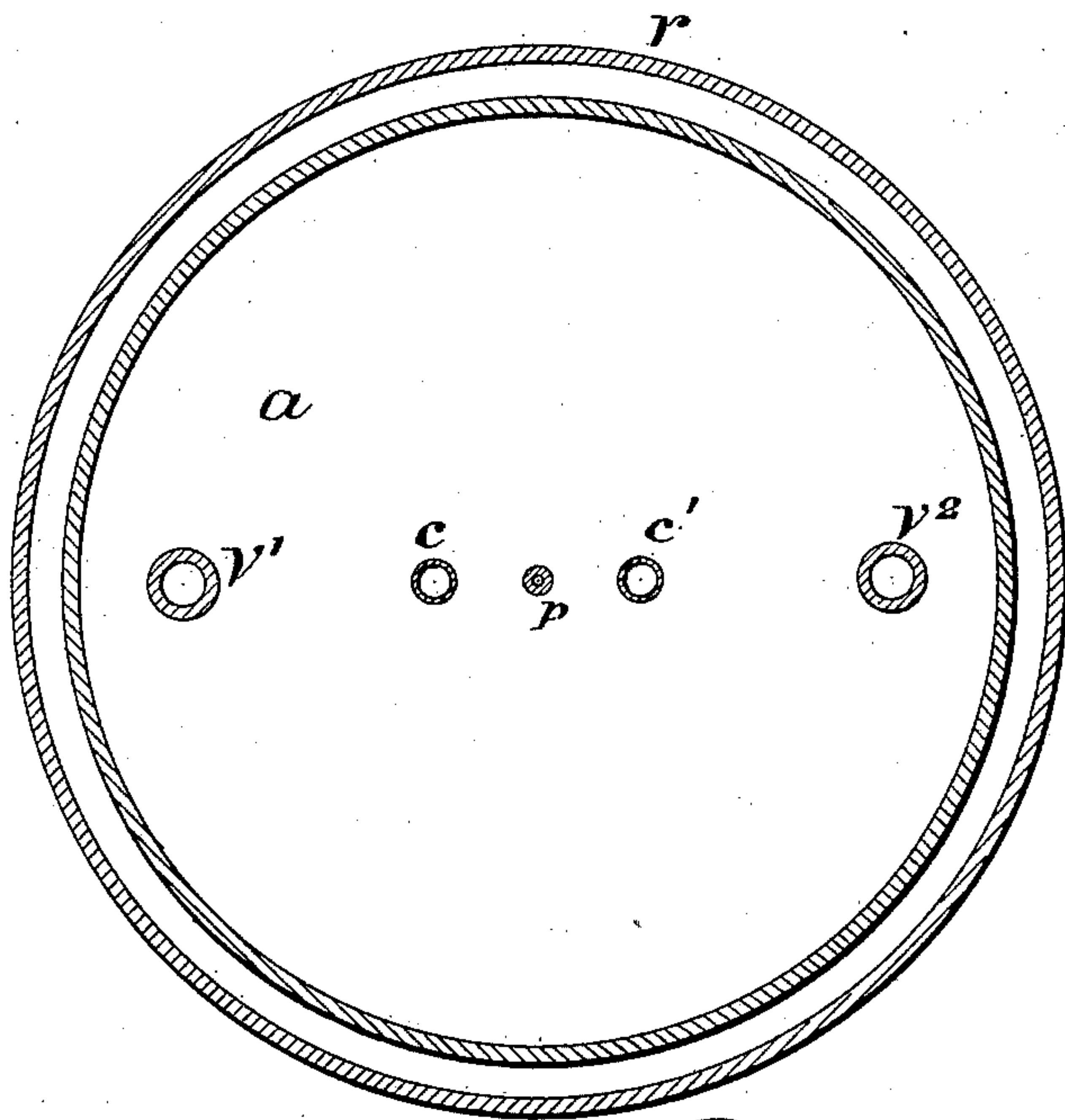
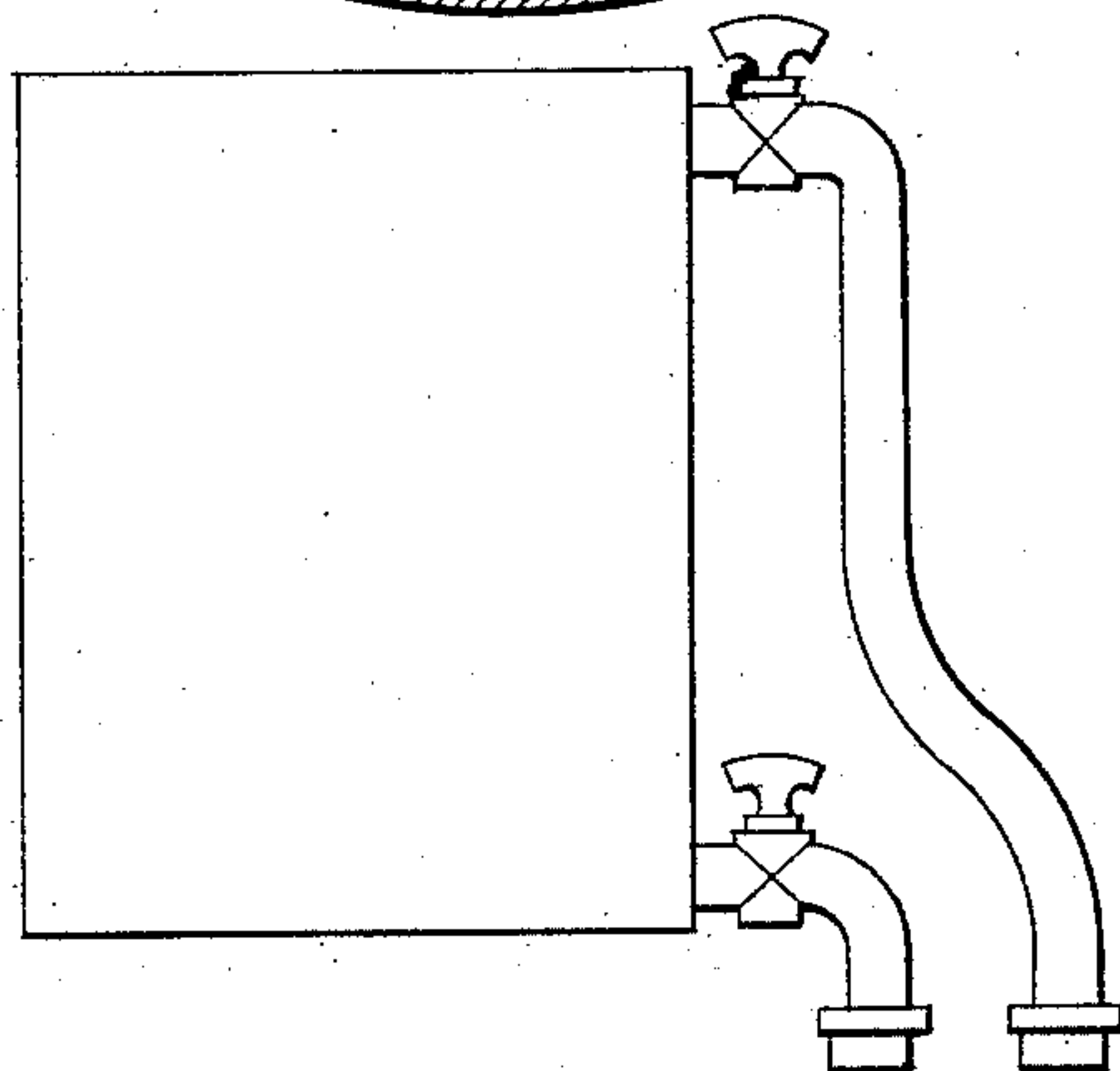


Fig. 4.



ATTEST:
J. A. Murdle
Edwin Bolitho

INVENTOR:
Peter Keller
per J. A. Murdle
atty.

UNITED STATES PATENT OFFICE.

PETER KELLER, OF NEW YORK, N. Y.

CARBURETOR.

SPECIFICATION forming part of Letters Patent No. 353,311, dated November 30, 1886.

Application filed December 8, 1885. Serial No. 185,085. (No model.)

To all whom it may concern:

Be it known that I, PETER KELLER, a citizen of the United States, and a resident of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Carburetors, of which the following is a specification.

My invention relates to carburetors for supplying illuminating-gas with the vapor of hydrocarbon liquid, as will be fully set forth in the following description thereof.

My invention consists of a float-valve composed of a disk with keels on the under side thereof and a projecting lobe on the upper portion thereof, which is connected with a spring terminating in a straight rod, which extends upward through an opening made in the central portion of the diaphragm. Said rod is supported in a vertical position by means of guides. The lower edge of the opening surrounding the valve-rod is arranged so as to form a seat into which a corresponding-shaped valve fixed to the aforesaid valve-rod fits.

In the accompanying drawings, Figure 1 represents a vertical central section of my carburetor. Fig. 2 represents a top and inverted plan. Fig. 3 represents a cross-section of the carburetor. Fig. 4 represents a filling-can.

Similar letters refer to similar parts throughout the drawings, in which *a* represents the storage-chamber for the hydrocarbon liquid, and the lower compartment I term the "evaporating-chamber" *b*. The top of the storage-chamber is provided with a vent and filling-tube, *c c'*, each of which is provided with stop-cocks *d d'*, and also with screw-caps *e e'*, for closing the end of said tubes. The storage and evaporating chambers are formed by a diaphragm, *f*, in the center of which is an opening, *g*, through which passes a valve or guide rod, *h*, carrying a valve, *i*, fixed thereto and of suitable form adapted to correspond with the seat *k*, made around the said opening *g*, through which the valve or guide rod passes. This guide-rod terminates in the shape of a spring, *l*, below the aforesaid valve *i*, and the lower end of the spring is secured to a float-valve, *m*, consisting of a disk, *m'*, having an upwardly-projecting lobe, *m''*, adapted to close the lower end of the spout *n*, projecting downwardly from the diaphragm. The bottom of the float-valve is provided with keels *m'''*,

adapted to prevent the same from being easily removed from a horizontal position.

Secured to the bottom of the evaporating-chamber, and arranged around the float-disk, are four vertical pins, *o*, serving as guides for the float, and thus preventing it from swinging beyond the vertical line of the spout against the end of which it is designed to operate. That portion of the guide or valve rod located within the storage-chamber is guided in a vertical position by means of the guide-yoke *p*, secured to the upper portion of the diaphragm, and the guide-sleeve *p'*, secured to the lower portion of the top of the storage-chamber. The vessel forming the storage and evaporating chambers is hermetically sealed, and placed within and entirely covered by another vessel, *r*, provided with an annular hollow projection, *s*, on the top thereof and inclosing both the vent and filling tubes of the storage-chamber. This hollow projection *s* is provided with a cover, *s'*, adapted to be locked or otherwise fastened thereto. There is in the base of the hollow projection an opening, *t*, through which water is supplied until it shall have reached above the vent and filling tubes *c c'*.

Arranged diametrically opposite each other are two vertical pipes, *v' v''*, passing from the main gas-conduit *v*, and extending therefrom to the evaporating-chamber. One of these vertical pipes extends at a suitable distance below the diaphragm of the evaporating-chamber, the other stopping flush with the base thereof.

Mode of operation: The gas passes from the main conduit *v* to the gas-supply pipe *v'*, thence to the evaporating-chamber *b*, where it becomes carbureted while passing through the hydrocarbon vapor to the outlet-pipe *v''*, from which it passes to the various branches for illuminating purposes. The constant evaporation of the hydrocarbon liquid will cause its level to descend, carrying with it the float-valve *m*, which in turn causes the valve *i* to leave the seat *k*, leading into the storage-chamber *a*, when the hydrocarbon liquid begins to descend thereupon and continues until the liquid shall have reached its predetermined height within the evaporating-chamber *b*, when the valves will have closed all communication with the storage-chamber. This operation continues

until the storage chamber shall have been exhausted, when the cover is removed and the filling-tubes of the carburetor are connected with the tubes of the hydrocarbon-liquid can, thus resupplying the storage-chamber.

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

In combination with a carburetor, the float-valve composed of the disk with keels on the lower surface thereof, and the upwardly-projecting lobe on the upper surface of the same,

and connected with a spring terminating in a straight rod operating in the guides, and the valve fixed to said rod above the spring aforesaid, substantially as shown and described.

Signed at New York, in the county of New York and State of New York, this 14th day of April, A. D. 1885.

PETER KELLER.

Witnesses:

J. A. HURDLE,

JOHN HAHNENFELD.