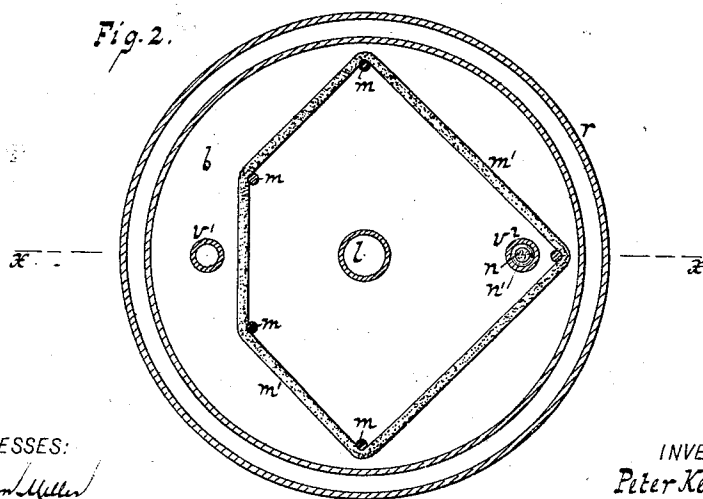
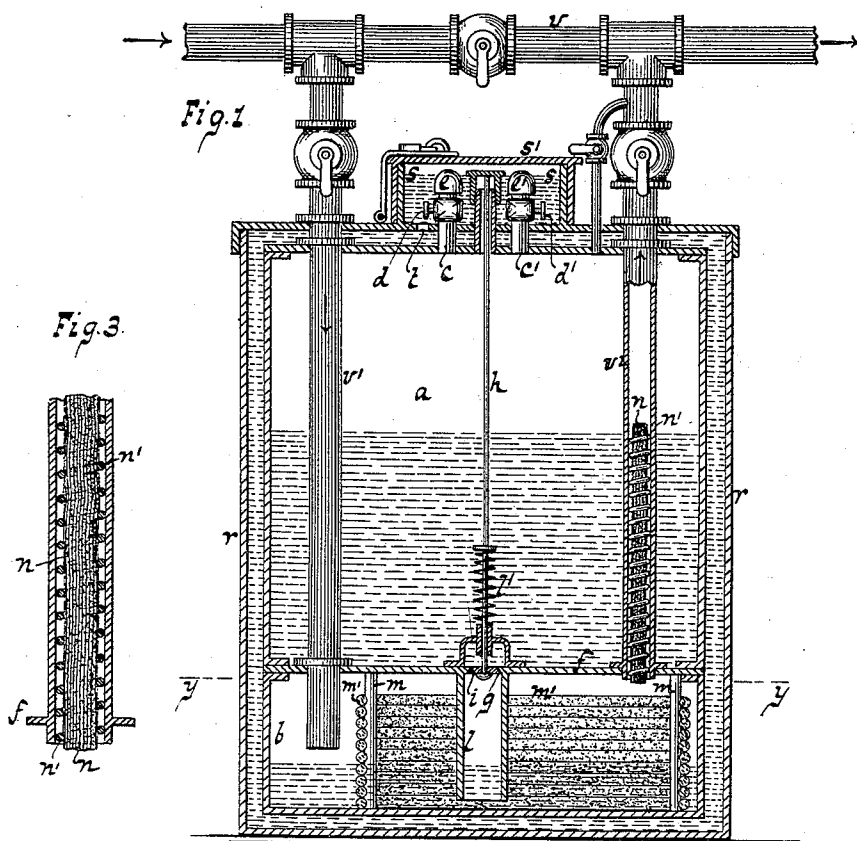


(No Model.)

P. KELLER.
CARBURETOR.

No. 499,635.

Patented June 13, 1893.



WITNESSES:
William Keller
E. J. Kastenhuber

INVENTOR:
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UNITED STATES PATENT OFFICE.

PETER KELLER, OF CHICAGO, ILLINOIS.

CARBURETOR.

SPECIFICATION forming part of Letters Patent No. 499,635, dated June 13, 1893.

Application filed October 27, 1892. Serial No. 450,155. (No model.)

To all whom it may concern:

Be it known that I, PETER KELLER, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented new and useful Improvements in Carburetors, of which the following is a specification.

My invention relates to certain improvements in carburetors for supplying illuminating gas with the vapor of hydrocarbon liquid as pointed out in the following specification and claim and illustrated in the accompanying drawings in which—

Figure 1 represents a vertical central section. Fig. 2 is a horizontal section in the plane xx Fig. 1. Fig. 3 is a partial longitudinal section of the delivery pipe on a larger scale than the previous figures.

In the drawings the letter a represents the storage chamber for the hydrocarbon liquid and v is the evaporating chamber. The top of the storage chamber is provided with a vent and filling tube $c c'$ each of which is provided with a stop cock $d d'$ and also with a screw cap $e e'$ respectively for closing the ends of the said tubes. The storage and evaporating chambers are separated from each other by a horizontal partition f in the center of which is an opening g through which passes a rod h carrying a valve i fixed thereto and of suitable form to correspond with the seat formed by the edge of said opening. The valve rod extends up through a yoke and is subjected to the action of a spring l' which is so adjusted that it retains the valve in its seat against the downward pressure which is exerted by the liquid in the storage chamber upon the upper face of the valve i . The upper end of the valve rod h is guided in a tubular projection formed on or secured to the top of the storage chamber. This projection is closed by a screw cap. The vessel forming the storage and evaporating chambers is hermetically sealed and placed within and entirely covered by another vessel r provided with a hollow projection s situated on top thereof and inclosing both the vent and the filling tubes of the storage chamber. The 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. Arranged diametrically opposite to each other are two vertical pipes $v' v^2$ passing from the main gas pipe v and extending therefrom to the evaporating chamber, the pipe v' being made to pass down a suitable distance below the partition f while the pipe v^2 stops flush or nearly so with the under surface of this partition. From the under surface of the partition f extends a pipe l nearly to the bottom of the evaporating chamber b . This pipe is open at its bottom end and it surrounds the valve i so that said valve can open downwardly. These devices have been used heretofore and they serve to control the connection between the storage chamber and the evaporating chamber but it is obvious that different means may be used for this purpose and I do not claim in this application for a patent any specific means for this purpose.

In the bottom of the evaporating chamber are secured a series of pins m for the purpose of supporting a strand m' of cotton thread or other equivalent absorbent material which is wound round the pins m as indicated in Fig. 2 and which takes up the hydrocarbon liquid from the bottom part of the evaporating chamber by capillary attraction and distributes the same over a comparatively large evaporating surface.

Into the interior of the pipe v^2 , I place an absorbent packing n and in the example shown in the drawings this packing is composed of threads of cotton or wool (the latter being used by preference) which are secured to a spiral spring n' of such a diameter that if it is pushed into the pipe v^2 it will be retained therein by frictional contact. When the gas in its passage through the evaporating chamber has taken up a quantity of hydrocarbon vapor, it has to pass through the packing n which in a short time becomes charged with hydrocarbon vapor and as soon as this packing becomes surcharged, a portion of the hydrocarbon vapor condenses and trickles back into the evaporating chamber so that by the packing the quantity of hydrocarbon vapor mixed with the gas is regulated

and the danger that a portion of the hydrocarbon vapor will condense in the pipes leading to the gas burner is reduced.

What I claim as new, and desire to secure
5 by Letters Patent, is—

The combination with the storage chamber
10 *a*, the evaporating chamber *b*, the gas supply pipe *v*, the branch pipes *v'* *v*² extending from the gas supply pipe into the evaporating chamber, and the partition *f* between the
storage and evaporating chambers, of the tube
l located in the evaporating chamber, a valve
i opening downward in said tube to establish
communication between the storage and evap-

orating chambers, the pins *m* disposed in the 15
evaporating chamber round the said tube, and a strand *m'* of absorbent material wound round the pins and encircling the tube in the
evaporating chamber, substantially as de-
scribed. 20

In testimony whereof I have hereunto set
my hand in the presence of two subscribing
witnesses.

PETER KELLER.

Witnesses:

W. C. HAUFF,

E. F. KASTENHUBER.