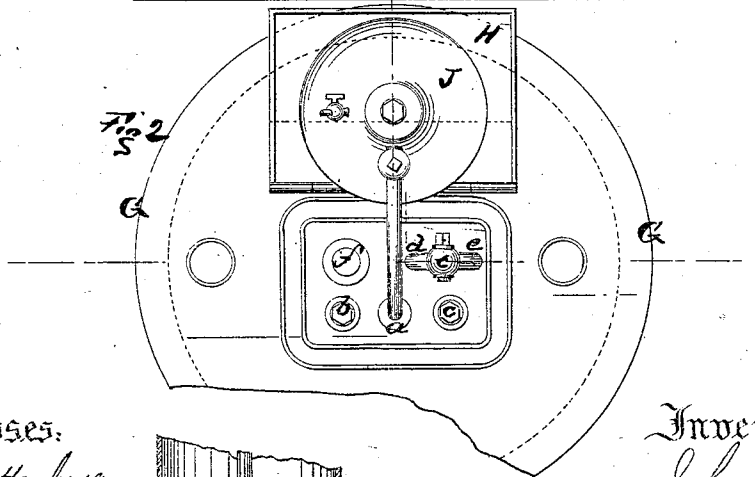
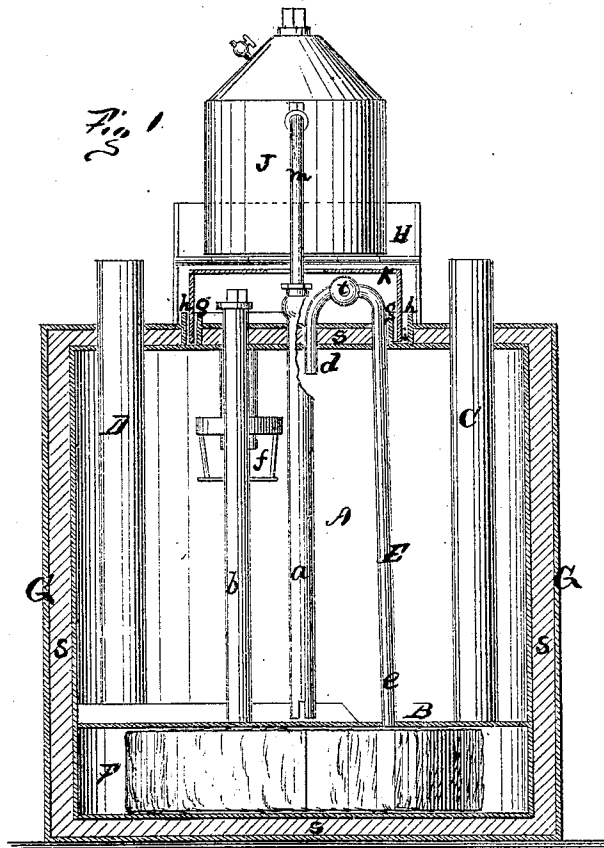


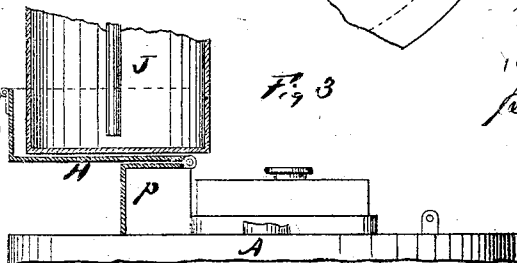
J. D. AVERELL.
Carburetters.

No. 134,240.

Patented Dec. 24, 1872.



Witnesses:
H. A. Mattenbergh
W. J. Wells



Inventor:
John D. Averell
per [Signature]
Atty

UNITED STATES PATENT OFFICE.

JOHN D. AVERELL, OF NEW YORK, ASSIGNOR OF FOUR-FIFTHS HIS RIGHT
TO SUSAN A. JOYCE, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN CARBURETERS.

Specification forming part of Letters Patent No. 134,240, dated December 24, 1872.

To all whom it may concern:

Be it known that I, JOHN D. AVERELL, of the city, county, and State of New York, have invented a new and Improved Carbureter; and that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing and to the letters of reference marked thereon making a part of this specification.

This invention is in the nature of an improvement in carbureters; and the invention consists in arranging within the carbureter a device, of siphon form, for allowing the gas and air to escape from the interior of the tank, when the same is being filled, in such manner as to prevent its entering into the room; also, in surrounding the carbureter with an outer jacket, and filling the space between said jacket and the carbureter with Snyder's patent non-combustible cement; also, in the means of filling the carbureter and providing a support for the filling-can; and, finally, in sealing the upper ends of the several pipes of the carbureter, all of which is fully described in the following specification:

In the accompanying drawing, Figure 1 is a sectional view of my carbureter, showing the interior tubes, escape-pipes, and non-combustible filling; Fig. 2, a plan or top view of same; and Fig. 3, a section, showing cover thrown back and can seated thereon.

Similar letters of reference indicate like parts in the several figures.

A represents the shell or tank of a carbureter, which has a gas-tight top and bottom. Within the tank A is a partition, B, which is secured within the tank in a gas-tight manner. Passing through the top of the tank A is an inlet-pipe, C, and an outlet pipe or riser, D, and also a filling-pipe, a, residuum-pipe b, and capillary supply-pipe c, and a siphon escape-pipe, E, the short leg d of which enters just below the under side of the crown of the tank A, and the longest leg e extends downward within the tank through and just below the under side of the partition B. The curved part of said pipe, which projects above the crown of the tank, has fitted to it a cock, t. There is also fitted to the carbureter a float, f, which is the same as that heretofore patented by me, and therefore needs no particu-

lar description at this time. The space F below the partition B is the capillary chamber, and it is fitted with a labyrinth wound with cotton-wicking, as in other carbureters. Surrounding the tank A is a jacket, G, sufficiently large to leave a space between the outer surface of the tank and the inner surface of the jacket. This space is firmly packed with a non-conducting material, s, known as "Snyder's patent non-combustible cement." To prevent the possibility of leakage of gas or vapor from the ends of the pipes a b c, float f, and the siphon escape-pipe E, when they pass through the crown of the tank A, I surround said ends with an inverted box, g, and this inverted box with a second inverted box, h, leaving a space, i, between them. This space is then filled with water or glycerine in such manner as to allow the edges of a top or holder, k, to enter into said fluid, forming a fluid seal in the same manner as a gas-holder, and effectually preventing the escape of gas from the pipes or joints. Fitting over the seal or holder k is a hinged cover, H, which, when turned back so as to admit of access to the projecting pipes, falls back in a horizontal position, supported by a rest, p.

My carbureter being constructed substantially as above described, its operation is as follows: The liquid hydrocarbon is contained in a filling-can, J, of the construction heretofore patented by me. The cover H is thrown back into a horizontal position, and in this way forms a substantial seat for the can, which is placed upon it. One end of a curved metallic tube, m, is then secured to the projecting outlet of the can, the sealed holder k is removed, and the other end of said curved tube is screwed to the end of the filling-tube a. The hydrocarbon enters through this filling-tube into the tank A of the carbureter, and, as the fluid rises, the gas or vapor from the hydrocarbon, which is above the fluid, escapes through the short leg d of the siphon escape-pipe E, the cock t being opened, and down the longest leg e of said escape-pipe into the capillary chamber F, and thence through said chamber to the inlet-pipe or riser D, for consumption.

The inlet-pipe C, riser D, residuum-pipe b, and capillary supply-pipe c, all being old, both

in their construction and use, and the float *f* having been previously patented by me, they need not be particularly described here, since I do not claim them.

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

1. A carbureter, when provided with a siphon escape-pipe, as and for the purpose described.

2. A carbureter, having in combination a siphon escape-pipe and a sealed cover, as described.

3. In a carbureter, the combination of a siphon escape-pipe with a float, as described.

4. A carbureter, when provided with a hinged cover forming a rest for the filling-can, as described.

5. A carbureter, when combined with a filling-can and a metallic conducting-pipe, as described.

6. In a carbureter, the combination of a filling-tube, residuum-tube, and capillary supply-tube with a siphon escape-pipe.

JOHN D. AVERELL.

Witnesses:

H. L. WATTENBERG,
G. M. PLYMPTON.

134240