D. C. BATTEY.

Carbureter.

No. 203,579. Patented May 14, 1878.

Fig. 1.

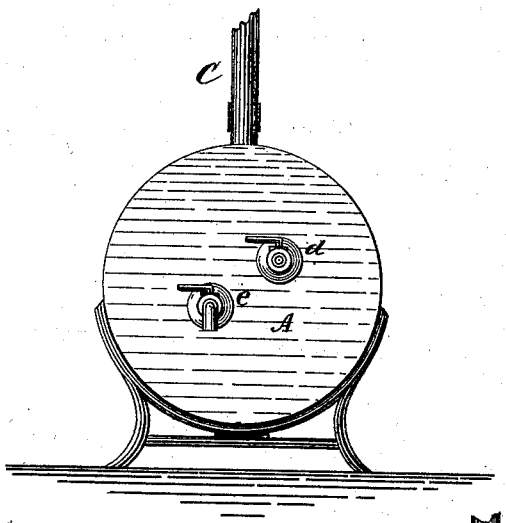
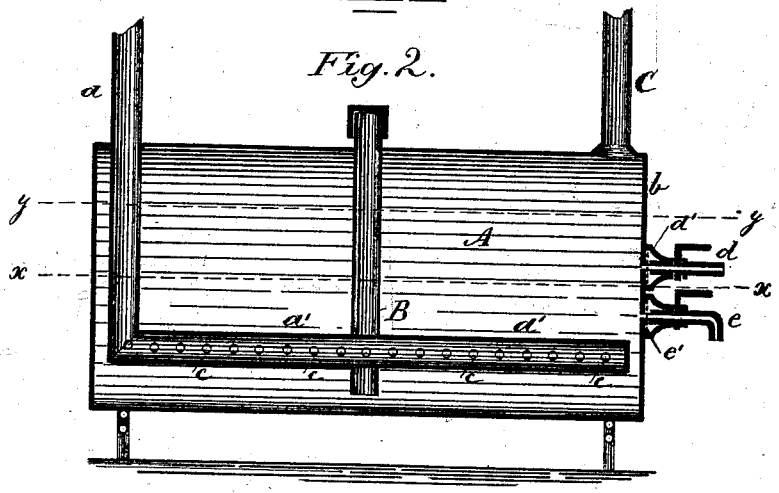


Fig. 2.



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UNITED STATES PATENT OFFICE.

DAVID C. BATTEY, OF MARION CENTRE, KANSAS.

IMPROVEMENT IN CARBURETERS.

Specification forming part of Letters Patent No. **203,579**, dated May 14, 1878; application filed June 4, 1877.

To all whom it may concern:

Be it known that I, DAVID C. BATTEY, of Marion Centre, in the county of Marion and State of Kansas, have invented certain new and useful Improvements in Carbureters; 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 the letters of reference marked thereon, which form a part of this specification, and in which—

Figure 1 is a front elevation, and Fig. 2 is a longitudinal section.

Similar letters of reference indicate corresponding parts in both the figures.

My invention relates to carbureters; and consists in an improved construction and arrangement of parts, substantially as hereinafter more fully set forth.

A is the body of my carbureter, which consists of an air-tight metallic tank or reservoir, having an air-pipe, *a*, which enters the tank from the top, near its rear end, passes straight down a suitable distance, and then bends at a right angle, running back to the front wall *b* of the machine, parallel to its bottom. The horizontal portion of air-pipe *a*, denoted by *a'*, has a series of perforations, *c*, on each side, for the distribution of the air to be carbureted, but is closed at the top and bottom, and also at the end. B is the supply-pipe, which passes from the top of reservoir A down below the air-pipe *a'*, close to the bottom; and C is the outlet or discharge pipe for the gas or carbureted air, by which this is conducted to a gasometer or direct to the burners. *d* and *e* are gage-faucets, serving also as vents in filling the machine with water and gasoline. Each of these is preferably covered with a diaphragm, *d' e'*, of wire-gauze.

The line *x x* denotes the water-line, and *y y* that of the naphtha, gasoline, or other carbureting material. Pipe *a'* is, as will be seen by reference to the drawing, submerged below the water-line, which should never fall below the gage-faucet *e*.

From the foregoing description the operation of my carbureter will be readily understood. The supply-pipe B, terminating below the water-line, will prevent the gas from escaping up through the pipe in opening for filling the machine; and pipe *a'*, having only two lines of perforations, one on each side, but being closed at the top, end, and bottom, will force the air out sidewise against the sides of the carbureter, thus causing it to traverse a larger amount or body of water than if these perforations were in the top of or surrounding the pipe, because each air-bubble has to describe a curve through the water before it escapes up into the oil.

I am aware that carbureters have been used employing a perforated diaphragm, through which the air is forced, through water, up into the superincumbent layer of oil or gasoline; but the presence of such a diaphragm renders it very difficult, if not impossible, to clean out the machine, which it is important to do occasionally. Not so with my improvement, which not only insures perfect carbureting of the air, but permits the machine to be cleaned or rinsed out without removal of the pipes whenever this should prove desirable.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

The carbureter herein shown and described, consisting of the closed cylindrical vessel A, inlet air-pipe *a a'*, bent at a right angle below the water-line, and said bent part provided with a single line of perforations, *c c c*, on each side, reaching to the closed end of the pipe, supply-pipe B, and outlet-pipe C, the whole constructed and arranged as and for the purpose specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

DAVID C. BATTEY.

Witnesses:
ALVAN D. BATTEY,
HENRY V. R. WILMOT.