

(No Model.)

E. I. P. STAEDT.
CARBURETER.

No. 572,837.

Patented Dec. 8, 1896.

FIG. 1.

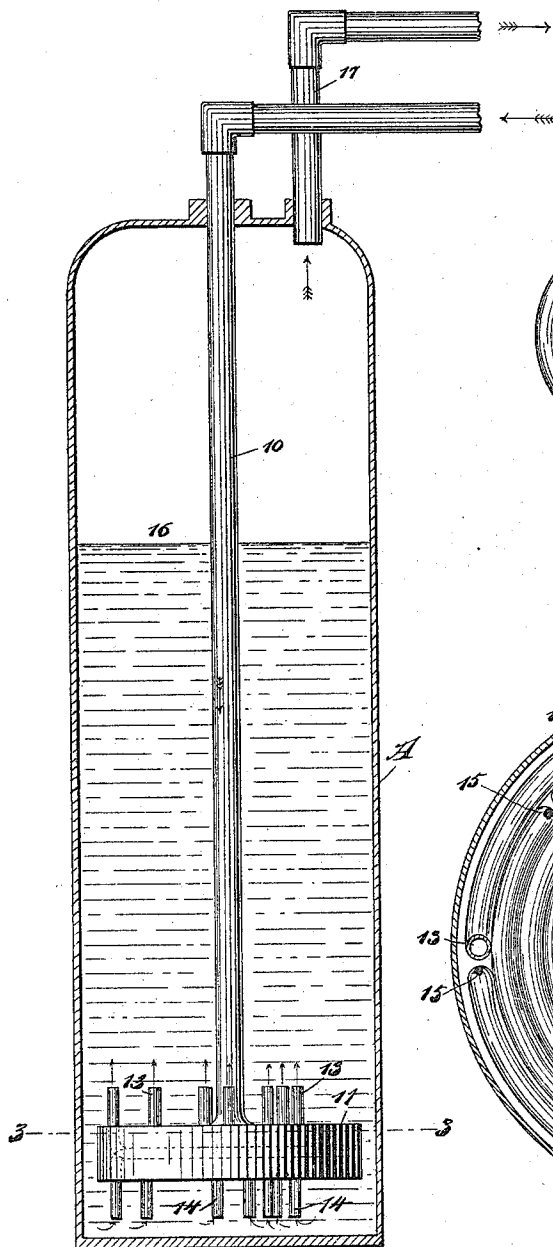


FIG. 2.

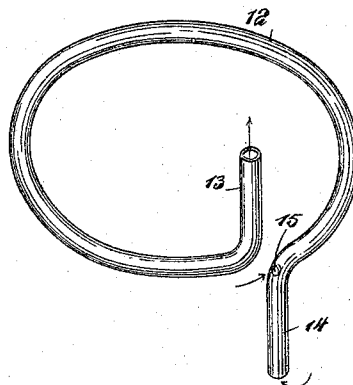
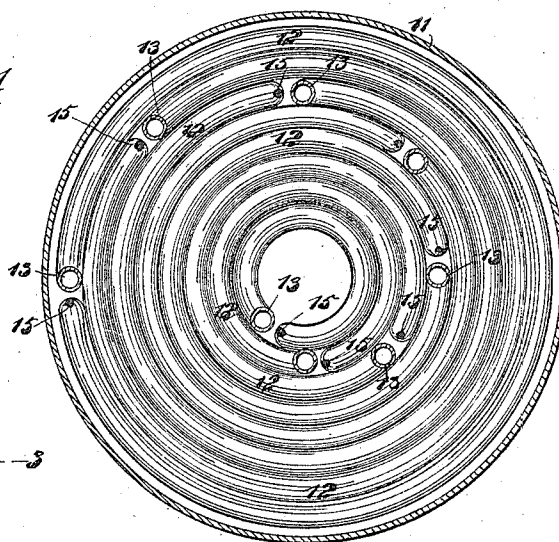


FIG. 3.



WITNESSES:

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UNITED STATES PATENT OFFICE.

EDWARD I. P. STAEDÉ, OF MANKATO, MINNESOTA.

CARBURETER.

SPECIFICATION forming part of Letters Patent No. 572,837, dated December 8, 1896.

Application filed October 2, 1896. Serial No. 607,651. (No model.)

To all whom it may concern:

Be it known that I, EDWARD I. P. STAEDÉ, of Mankato, in the county of Blue Earth and State of Minnesota, have invented a new and Improved Carbureter, of which the following is a full, clear, and exact description.

The object of my invention is to provide a simple device by means of which air can be carbureted by forcing it through gasolene or other volatile fluids in such a way as to use the heavier or least volatile portion first, leaving the lighter and more volatile portion to be used the last, thereby admitting of the production of a uniform quality of gas.

Another object of the invention is to force the air through the gasolene or other fluids a considerable distance with the least possible amount of air-pressure.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a longitudinal vertical section through the improved carbureter. Fig. 2 is a detail perspective view of one of the coils; and Fig. 3 is a horizontal section through the chamber containing the coils, the said section being taken on the line 3 3 of Fig. 1.

In carrying out the invention a tank A, of suitable dimensions and material, is employed. The tank is usually quite deep, as illustrated, and through the top of the tank an air-conducting pipe 10 is passed to a point near the bottom of the tank, the upper portion of the pipe 10 being connected with an air-compressor of any desired type. The lower end of the air-conducting pipe 10 is connected, preferably at the center, with the top portion of a chamber 11, which chamber is air-tight and contains a number of coils 12, the various coils being independent of each other. Each coil, as shown in Fig. 2, consists of a pipe or tube bent to an approximately circular form and having its ends 13 and 14 projected one upward and the other downward. These ends are carried, respectively, through the top and bottom of the chamber 11 without destroying the air-tight qualities of the

chamber. As will be observed, the chamber 11 is located as near as possible to the bottom of the tank A, or at that point where the gasolene 16 or other volatile fluid contained in the tank is heaviest. Each coil is provided with an opening 15 within the chamber 11, the opening being located, preferably, where the downwardly-extending member of the coil connects with the body. An offtake-pipe 17 for the gas is also placed at the top portion of the tank.

The air after being forced into the supply-pipe 10 enters the chamber 11 and finds its escape through the coils, entering the coils at the inlets 15, and as the air enters a coil it draws the gasolene up through the lower leg 14 of the coil from the bottom portion of the tank, where, as before stated, the volatile liquid is the heaviest, and the volatile liquid in the form of a stream will pass with the air through the coil and out through the upper leg 13 of the latter. The air continues upward, finding an escape through the pipe 17. The bodies of the coils are placed horizontally, and are not used in any sense as an atomizer by reason of the air-pressure that would be required, but the air is carbureted as it passes through the coils with the gasolene.

A carbureter constructed as above set forth is exceedingly simple and practical as well as durable and economical and insures a uniform quality of gas.

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

1. A carbureter, comprising a tank adapted to contain a volatile liquid, a chamber located in the bottom portion of the tank, means for supplying air to the said chamber, and coils located within the chamber, extending outward therefrom in an upwardly and in a downwardly direction, each coil being provided with an inlet within the said chamber, as and for the purpose specified.

2. A carbureter, comprising a tank adapted to contain gasolene, an air-supply pipe extending within the tank to a point near its bottom and terminating at its lower end in an air-tight chamber, and coils located within the said chamber, the ends of the said coils extending one upward and the other down-

ward, beyond the outer faces of the chamber, each coil being provided with an inlet within the chamber, as and for the purpose specified.

- 5 3. The combination, with a tank adapted to contain gasoline or other volatile liquid, a gas-offtake pipe connected with the said tank, and an air-supply pipe extending into
10 the bottom of the same, of an air-tight chamber connected at its center with the air-supply pipe, and a series of coils arranged concentrically within the said chamber, each coil being provided with an upwardly and a down-
15 wardly extending leg, which legs extend through and beyond the top and bottom portions of the said chamber, each coil being provided with an inlet-opening near the junction of its bottom with the lower leg, the said

inlet-opening being within the chamber, as 20 and for the purpose specified.

4. A carbureter, consisting of a tank provided with an air-supply pipe and a gas-offtake pipe, an air-tight chamber located near the bottom of the tank, connected with the 25 air-supply pipe, and coils located within the said chamber, having their ends carried one upwardly and the other downwardly, beyond corresponding surfaces of the said chamber, each coil being provided with an inlet-open- 30 ing located within the said chamber at the junction of its downwardly-extending member with its body, as and for the purpose specified.

EDWARD I. P. STAEDT.

Witnesses:

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