

(No Model.)

G. FROH.
CARBURETOR.

No. 303,927.

Patented Aug. 19, 1884.

Fig. 1.

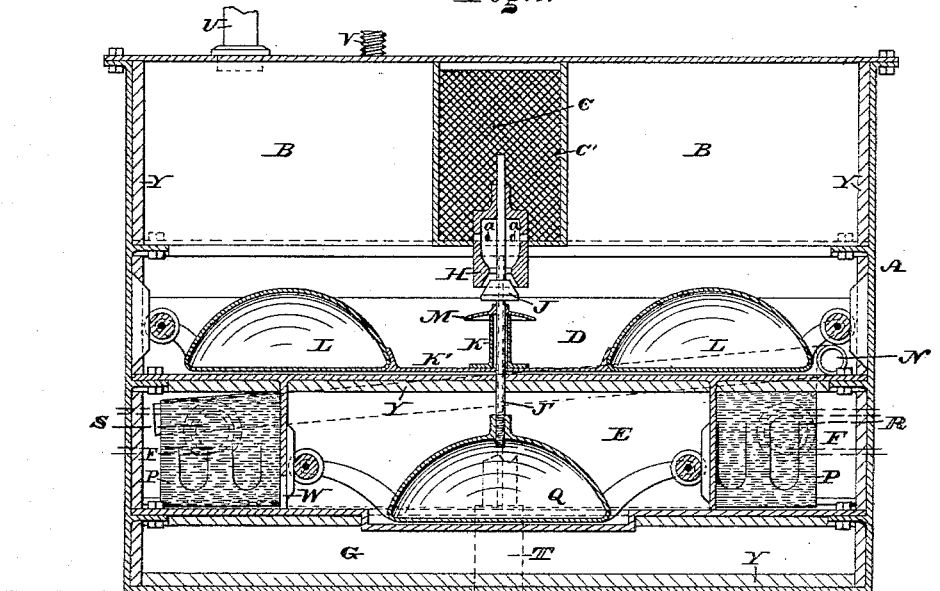


Fig. 2.

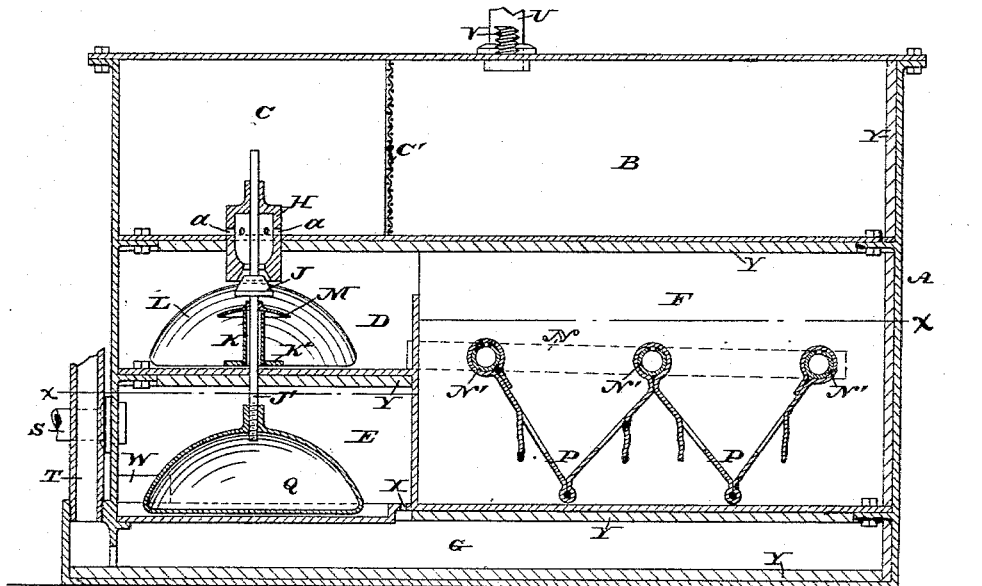
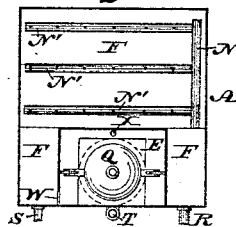


Fig. 3.



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UNITED STATES PATENT OFFICE.

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CARBURETOR.

SPECIFICATION forming part of Letters Patent No. 303,927, dated August 19, 1884.

Application filed January 16, 1884. (No model.)

To all whom it may concern:

Be it known that I, GEORGE FROH, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Carburetors, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figures 1 and 2 are vertical sections at right angles to each other of a carburetor embodying my invention. Fig. 3 is a horizontal section on a reduced scale in line *xx*, Fig. 2.

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

My invention consists of a carburetor in which the flow of the carbureting-fluid is automatically and nicely controlled in two chambers, and other details of construction are presented, as will be hereinafter fully set forth.

Referring to the drawings, A represents a casing made of any suitable material, preferably metal, the same being divided into a receiving-chamber, B, a chamber, C, communicating therewith, with a perforated or gauze partition, C', between them, a float and valve chamber, D, another float-chamber, E, a carbureting-chamber, F, and a drip-receptacle, G.

Secured to the bottom of the chamber C is a hollow valve-seat, H, the same having openings or ducts *a*, which open into said chamber C, the bottom of said seat opening into the chamber D, thus forming a communication between the chambers C D.

J represents a valve, which opens downwardly from said seat H, and is secured to the stem J', which is properly guided in the seat H and the bottom of the chamber D.

Loosely encircling the stem J', below the valve J in the chamber D, is a sleeve, K, which is attached by means of a bar, K', to floats L in the same chamber D; and firmly secured to said stem J', between the valve J and sleeve K, is a stop and deflector, M.

Communicating with the chambers D and F is a pipe, N, which in the chamber F is formed with perforated branches N', from which are suspended strips or pieces P of absorbent material, the same being adapted to be saturated by hydrocarbon fluid which escapes through the perforations of the branches N'.

At the bottom of the stem J' is a float, Q,

which occupies a position within the chamber E.

R represents an air-inlet pipe leading into the chamber F, and S represents a carbureted air-discharge pipe leading from said chamber, it being noticed that said chamber is three-sided and thereby enlarged.

T represents a pipe communicating with the chamber G for discharging the drip and accumulations of said chamber.

The operation is as follows: Gasoline or other hydrocarbon fluid is admitted into the chamber B through the supply-pipe U, and the displaced air escapes through the pipe V. The fluid enters the chamber C, and flows into the valve-seat through the ducts *a*, and enters the chamber D, whence it is directed by the pipe N and branches N' into the carbureting-chamber F, saturating the material P, as has been stated. Air is forced through the pipe R into the chamber F and passing through the same, and the saturated material P becomes charged with hydrocarbon and carbureted, in which condition it is discharged through the pipe S and directed to the place of service. Should the fluid flow too freely from the chamber C and collect to an undesirable extent in the chamber D, the floats L rise and cause the sleeve K to strike the stop M, whereby the valve J is raised and accordingly closed. When the supply of fluid is equalized or adjusted, the floats fall and permit the valve to reopen. Should there be a collection of fluid in the chamber F, it may escape therefrom through an opening, W, in the inner vertical wall of the chamber E into said chamber E, and cause the float Q to rise and close the valve until said collection is disposed of either by evaporation or escape into the chamber G through an opening, X, at the bottom of the chamber E, said opening also permitting water, condensed matters, and drip generally to enter the chamber G, from which the same may be pumped or otherwise removed by the pipe T, as has been hereinbefore referred to.

In order to cause the floats L Q to move steadily and with facility, the same are provided with rollers, which are properly guided within the chambers containing said floats.

Y represents wood or other proper material

with which the casing A is lined, thus protecting the interior of the carburetor from the influences of changes of temperature and other injurious effects.

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

10 1. A carburetor having a valve, a float in the chamber leading to the carbureting-chamber, and a float in the chamber leading from said chamber, both floats closing said valve when there is an excess of carbureting-fluid in either chamber, substantially as and for the purpose set forth.

15 2. The floats L Q in different carbureting-chambers, in combination with the valve J, the

valve-stem J', the sleeve K, and stop M, the valve-stem being connected with one of the floats and passing freely through the sleeve K, which is connected with the other float, substantially as and for the purpose set forth. 20

3. A carbureting apparatus consisting of chambers B C D E F G, valve J, valve-seat H, stop M, float L, sleeve K, pipes N N', float Q, absorbent material P, air-induction pipe 25 R, and carbureted-air-eduction pipe S, substantially as and for the purpose set forth.

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Witnesses:

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