

No. 661,660.

Patented Nov. 13, 1900.

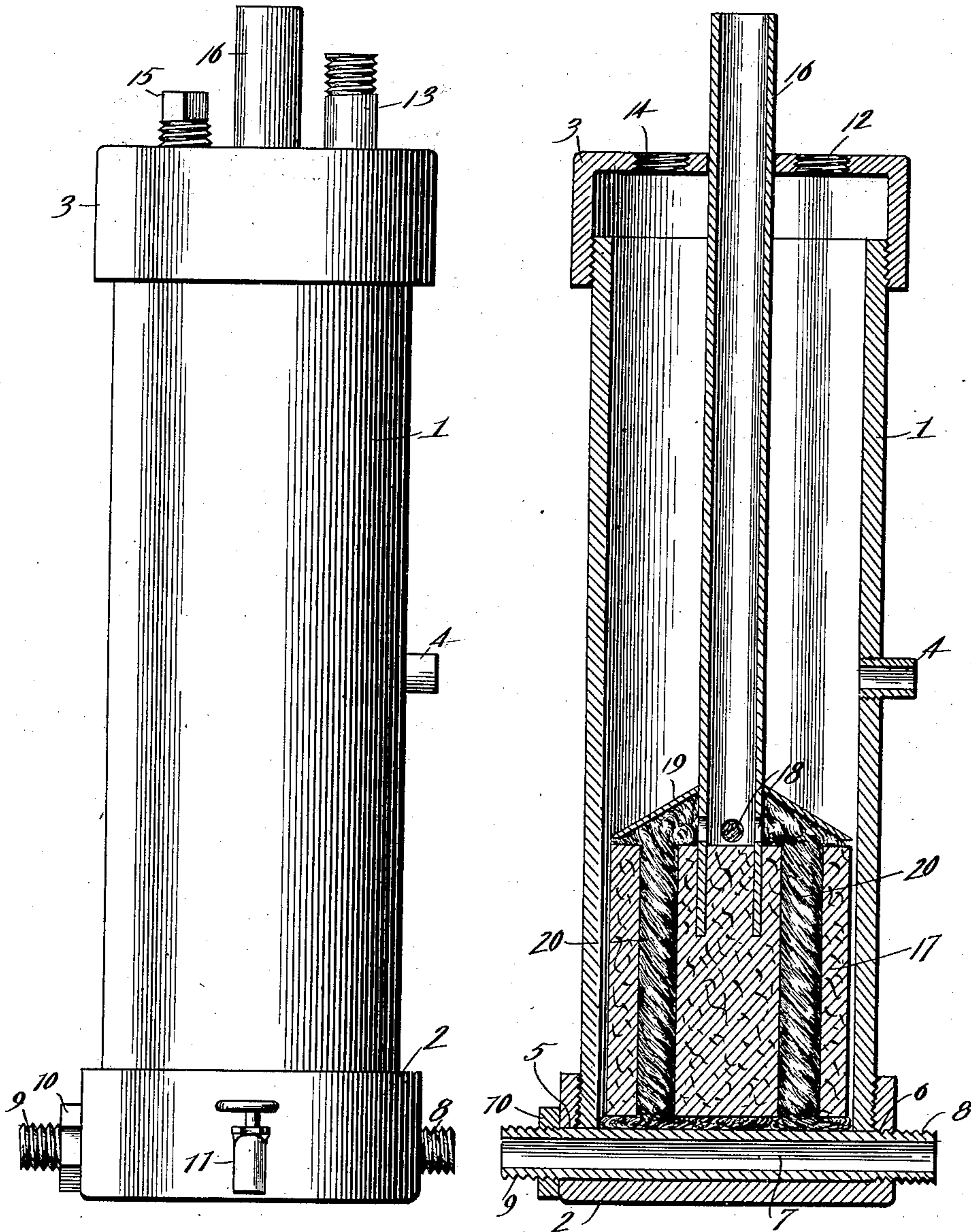
A. GRIEBEL.
CARBURETER.

(Application filed Mar. 30, 1900.)

(No Model.)

Fig. 1.

Fig. 2.



Witnesses
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UNITED STATES PATENT OFFICE.

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CARBURETER.

SPECIFICATION forming part of Letters Patent No. 661,660, dated November 13, 1900.

Application filed March 30, 1900. Serial No. 10,796. (No model.)

To all whom it may concern:

Be it known that I, ANDREW GRIEBEL, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented a new and useful Carbureter for Gasolene-Engines, of which the following is a specification.

This invention relates to a carbureter which is intended more particularly for use on an automobile whose motive power is a gasolene-engine or other self-propelled vehicle utilizing a similar engine and wherein the supply-tank is usually flat or of comparatively small vertical extent, so that in the event of the supply-tank springing a leak the carbureter would not be flooded by the gasolene; and the object of the present improvement is to provide simple and efficient means of commingling air and oil-gas within a small apparatus and with sufficient rapidity and accuracy to render the improved device particularly applicable to self-propelled or motor vehicles.

In the drawings, Figure 1 is a side elevation of a carbureter embodying the features of the invention. Fig. 2 is a transverse vertical section of the improved device.

Similar numerals of reference are employed to indicate corresponding parts in both views.

The numeral 1 designates a cylindrical body, preferably formed of a piece of pipe of any suitable size and having a lower cap 2 removably threaded thereon and an upper cap 3 in like manner applied thereto. These caps 2 and 3 close the opposite extremities of the body 1, and in the said body at an intermediate point a small nipple 4 is secured and positioned about half-way between the opposite ends of the body. To this nipple is attached a suitable conduit or pipe (not shown) running from or communicating with a gasolene tank or receptacle, and which is intended to be operated by the well-known method of introducing air as a pressure or actuating medium. The flow of the gasolene from the tank or receptacle into the body 1 is intended to be controlled by any suitable means and for a purpose which will be more fully hereinafter set forth.

The bottom cap 2 has two holes 5 and 6

formed therein and located in the flange of the same, the opening 6 being threaded and both openings receiving a length of exhaust-pipe 7 with opposite screw-threaded extremities 8 and 9, which are mainly exterior of the cap when the said pipe 7 is in position, as shown by Fig. 2. In addition to the screw-threaded securement of the pipe 7 at one end, by reason of engagement thereof with the screw-threaded opening 6, the opposite screw-threaded extremity 9 of said pipe has a fastening-nut or analogous device 10 run thereon and brought to bear snugly against the adjacent outer surface of the flange of the cap. This exhaust-pipe 7 is intended to be connected to the engine, and the caloric effect of the exhaust can thus be used to advantage and also afford convenient means for assembling the different parts of the motor within compact relation or in a reduced space. The cap 2 also has a drain-cup 11 connected thereto for the purpose of relieving the body 1 of its contents at any time that may be desired, and it is intended that the said cap closely fit or form a tight joint with the portion of the body to which it is applied.

The upper cap 3 is formed with a screw-threaded opening 12, to which a nipple 13 is fitted for attachment of a pipe running directly to the engine, or said pipe itself may have one extremity secured in the said screw-threaded opening 12 and dispense with use of the nipple 13. This pipe from the opening 12 conducts the gas to the explosion-chamber of the engine, and at an opposite point the said upper cap is supplied with a screw-threaded opening 14 for the purpose of admitting gasolene into the body of the carbureter at this point if it is desired to introduce the gasolene in this manner, the said opening 14 being normally closed by a screw-plug 15. In the center of the cap 3 a thin brass tube 16 is snugly and movably fitted, the lower extremity of said tube being secured in the upper central portion of a cork float 17, which is of such dimension in cross-section as to be freely movable within the body 1. The said cork float 17 may be formed in any preferred manner, and the lower extremity of the tube 16 extends into the up-

per central part of the said float a sufficient distance to prevent easy disconnection of the said closely-related devices. The tube 16 normally projects above the top of the cap 3 when it occupies its lowest position in the body 1, and adjacent its point of attachment to the cork float the said tube has a series of apertures or openings 18 formed therein, and fast on the lower portion of said tube immediately above the cork float is a conical hood 19, a passage being provided between the outer edge of the said hood and the adjacent portion of the cork float thereunder. Extending vertically through the float 17 at regular intervals are wicks 20, which have their upper and lower extremities projected beyond the adjacent ends of the cork float and loosely spread or arranged over the said ends. The said wicks serve the well-understood function of feeding the oil to the top of the float.

The operation of the carbureter is as follows: The gasolene is permitted to enter the body 1 through the nipple 4 until the communicating opening of the said nipple with the said body is completely submerged, thus causing the float 17, tube 16, and all the parts included by these two devices to automatically rise and to maintain the upper part or end of the float at or slightly above the upper surface of the gasolene in the carbureter. The passage of the gas through the opening 12 and to the engine will create a downward suction in the tube 16, and consequently the air exterior of the carbureter will be drawn into said tube and pass out the openings 18, over and through the loose ends of the wicks 20, under the hood 19, and then out between the edge of the said hood and the adjacent part of the float, to thereby thoroughly charge the air with gas from the gasolene with which the wicks are saturated. It will be understood that as fast as the gasolene in the carbureter is used or converted into gas, and consequently lower the surface of the gasolene in the carbureter, it will sooner or later occupy a position below the plane of the nipple 4, and when this level of the gasolene is reached a further charge of the latter will be permitted to enter the carbureter from the tank until the said nipple-opening will have again become submerged. It is proposed to use any suitable automatic means for controlling the supply to the carbureter, and it will be observed that the structure of the body 1 is rendered extremely simple by the use of a piece of pipe or tubing or stock already prepared, and by not requiring any special or complex structure, and, moreover, produce a strong and durable device.

Though the preferred form of the carbureter has been descriptively disclosed and illustrated, it will be understood that changes in the form, size, proportions, and minor details may be resorted to without departing from the principle of the invention.

Having thus described the invention, what is claimed as new is—

1. In a carbureter for the purpose set forth, the combination of a body having an apertured top cap, a cork holder within the body having capillary feeding devices extending therethrough in a vertical direction and the extremities loosely exposed, a tube movably mounted in the said cap and its lower extremity extending into the center of and fast to the top portion of the said holder, the lower portion of the tube adjacent the holder being apertured, and a length of exhaust-pipe extending through the lower portion of the body.

2. In a carbureter for the purpose set forth, the combination of a body adapted to receive gasolene and having an apertured top cap, a cork float mounted in the said body and having capillary feeding devices extending therethrough and the extremities loosely exposed above and below the upper and lower ends of the float, a tube movably mounted in the top cap of the body and connected to the top portion of the float, the said tube adjacent its point of connection with the float being provided with apertures, and a conical hood connected to the tube and extending over the adjacent end portion of the float and the loose extremities of the capillary feeding devices, the periphery of the said hood extending above the adjacent part of the upper end of the float.

3. In a carbureter for the purpose set forth, the combination of a containing body having upper and lower caps, and a length of exhaust-pipe extending transversely through and secured to the lower cap.

4. In a carbureter, the combination of a body having upper and lower caps and an intermediate nipple for attachment of a supply-conduit, the upper cap being apertured and adapted to be connected to an engine, a cork float mounted in the said body and having wicks vertically extending therethrough at regular intervals, the opposite terminals of the wicks being loose and located over the opposite ends of the float, a thin tube movable through the center of the top cap and connected at its lower extremity to the central portion of the float and having openings therein adjacent to the upper end of the float, a hood attached to the tube and extending over the upper portion of the float and the wicks to cause the air indrawn through the said tube to pass over and through the saturated wick ends under the hood, and a length of exhaust-pipe extending transversely through the lower cap of the casing.

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

ANDREW GRIEBEL.

Witnesses:

GEO. ERNST,
C. F. WALTZ.