No. 711,005. Patented Oct. 14, 1902.

G. M. SCHEBLER.

CARBURETER.

(Application filed Apr. 21, 1902.)

(No Model.)

Fig. 1.

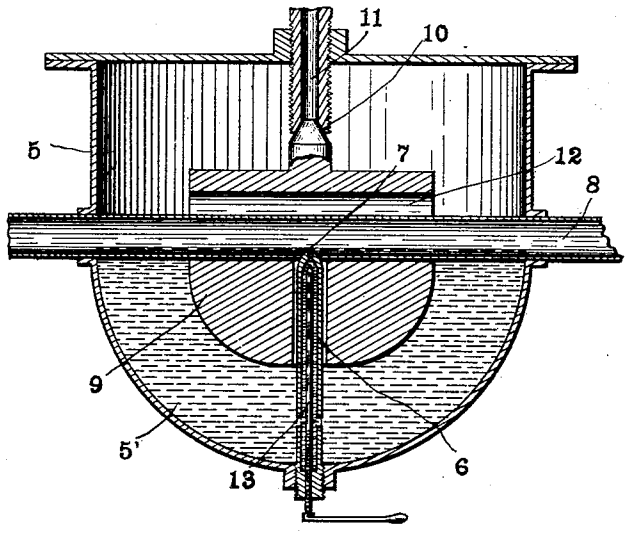
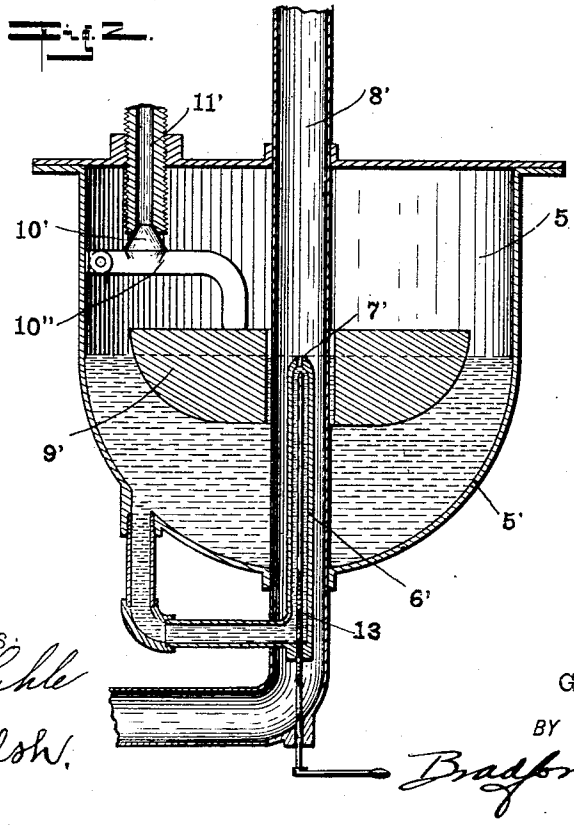


Fig. 2.



WITNESSES:

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CARBURETER.

SPECIFICATION forming part of Letters Patent No. 711,005, dated October 14, 1902.

Application filed April 21, 1902. Serial No. 103,875. (No model.)

To all whom it may concern:

Be it known that I, GEORGE M. SCHEBLER, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented certain new and useful Improvements in Carbureters, of which the following is a specification.

In self-propelled vehicles propelled by internal-combustion engines using volatile liquid fuel a carbureter is provided by means of which the liquid fuel may be introduced into an air-current passing into the engine. Difficulty has been found in obtaining a uniform introduction of fuel, because of the continual changes in level of the liquid, owing to the inequalities of ground over which the vehicle must pass.

The object of my invention is therefore to provide a carbureter of such form and arrangement that within considerable limit of change of position of the carbureter, due to changes in level of the road over which the vehicle is passing, the level of liquid will at all times bear the same relation to the discharge-nozzle, so that the feed will be uniform.

The accompanying drawings illustrate two forms of carbureters embodying my invention.

Figure 1 is a vertical section of a carbureter having a horizontally-arranged air-pipe; Fig. 2, a similar view of a carbureter having a vertical air-pipe.

In the drawings, 5 illustrates the main body of the carbureter, and 6 indicates a discharge-nozzle projected thereinto, the point 7 of the nozzle 6 being located at the center of the lower end of the reservoir, the said bottom being substantially spherical in form or of such shape that a uniform volume of liquid contained in the bottom of the reservoir may be defined by any one of a plurality of surface planes whose point of intersection approximates the center of the bottom. Extending through the reservoir 5 is an air-pipe 8, which in Fig. 1 extends transversely across the reservoir, the tip 7 of the nozzle projecting into the pipe. Within the reservoir 5 at any suitable point, so as to float in the liquid, is a float 9, which carries a valve 10, adapted to engage and close the lower end of the supply-pipe 11. Float 9 may be arranged at any suitable point in the reservoir; but I prefer to provide said float with a T-shaped core 12, through which pipe 8 and nozzle 6 are projected, as shown, the float 9 being thus maintained at the center of the reservoir. Mounted within nozzle 7 is a suitable needle or other valve 13.

In Fig. 2 the air-pipe 8′ extends vertically through the reservoir, while the nozzle 6′ lies within the air-pipe, with its tip 7′ at the center of the spherical portion 5′ of the reservoir 5. In this form the valve 10′ for closing the supply-pipe 11′ is carried by a lever 10″, pivoted within the reservoir and adapted to be engaged by the float 9′, which is sleeved upon the air-pipe 8′.

In operation owing to the spherical form of the bottom of the reservoir and the arrangement of the valve the level of liquid is automatically maintained at the center of the sphere, so that even though the reservoir be tipped in any direction to a considerable extent from the vertical—its normal position—the level of liquid will pass through the tube of the nozzle, the feed of fuel being uniform and not being affected by the angular inclination of the reservoir.

I claim as my invention—

1. In a carbureter, the combination, with a reservoir whose shape is such that a uniform volume of liquid contained in its bottom may be defined by any one of a plurality of surface planes having substantially the same point of intersection, of a discharge-nozzle communicating with the reservoir and the discharge-outlet of which lies substantially at the point of intersection aforesaid, an air-pipe into which the said discharge-outlet of the nozzle leads, means for controlling the flow of liquid through the nozzle, and means for maintaining a substantially constant volume of liquid in the reservoir.

2. In a carbureter, the combination, with a reservoir having a substantially spherical bottom, of a discharge-nozzle communicating with the interior of the reservoir and having its discharge-outlet located approximately at the center of the spherical portion of the reservoir, means for maintaining a volume of liquid equal to the volume of the semisphere,

an air-pipe into which the discharge-outlet of the nozzle leads, and means for controlling the flow of fluid through the nozzle.

3. A carbureter consisting of a reservoir having a substantially spherical bottom, of a discharge-nozzle communicating with the interior of the reservoir and having its tip located substantially at the center of the reservoir-bottom, an air-pipe traversing the reservoir and into which the tip of the nozzle is projected, means for controlling the flow of liquid through the nozzle, a supply-pipe leading into the reservoir, and a float arranged within the reservoir and carrying a valve adapted to automatically open and close the supply-pipe.

4. In a carbureter, the combination, with a reservoir whose shape is such that a uniform volume of liquid contained in its bottom may be defined by any one of a plurality of surface planes having substantially the same point of intersection, of a discharge-nozzle the discharge-outlet of which lies substantially at the point of intersection aforesaid, an air-pipe into which the said discharge-outlet of the nozzle leads, and means for maintaining a substantially constant volume of liquid in the reservoir.

5. In a carbureter, the combination, with a reservoir having a substantially spherical bottom, of a discharge-nozzle communicating with the interior of the reservoir and having its discharge-outlet located approximately at the center of the spherical portion of the reservoir, means for maintaining a volume of liquid equal to the volume of the semisphere, and an air-pipe into which the discharge-outlet of the nozzle leads.

6. A carbureter consisting of a reservoir having a substantially spherical bottom, of a discharge-nozzle communicating with the interior of the reservoir and having its tip located substantially at the center of the reservoir-bottom, an air-pipe traversing the reservoir and into which the tip of the nozzle is projected, a supply-pipe leading into the reservoir, and a float arranged within the reservoir and carrying a valve adapted to automatically open and close the supply-pipe.

7. In a carbureter, the combination, with a reservoir having a substantially spherical bottom, of an air-pipe extending transversely through the reservoir across the center of the spherical portion, a discharge-nozzle communicating with the interior of the bottom of the reservoir and having its tip projected into the air-pipe and reaching approximately the center of the spherical bottom, a valve arranged to control the flow of liquid through the nozzle, a supply-pipe leading into the reservoir, a float having a T-shaped core through which the air-pipe and nozzle project, and a valve carried by the float and adapted to automatically open and close the supply-pipe.

In witness whereof I have hereunto set my hand and seal, at Indianapolis, Indiana, this 17th day of April, A. D. 1902.

GEORGE M. SCHEBLER. [L. S.]

Witnesses:
ARTHUR M. HOOD,
JAMES A. WALSH.