G. H. BROWN & W. A. JONES.

MOISTURE SUPPLYING DEVICE FOR CARBURETER AIR SUPPLY.

APPLICATION FILED MAR. 31, 1916.

1,195,905. Patented Aug. 22, 1916.

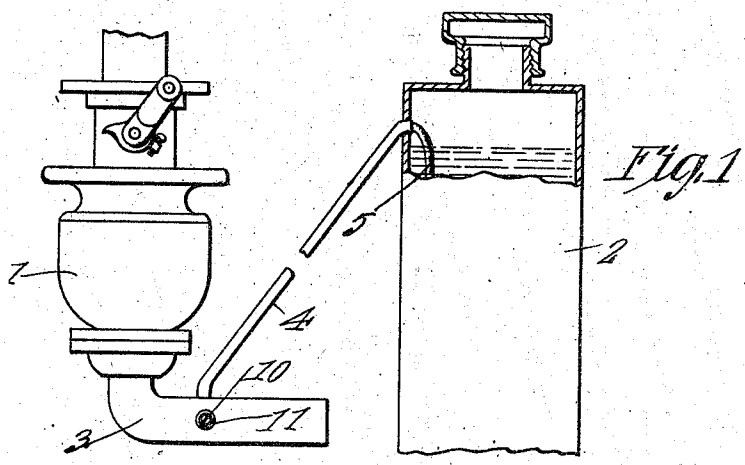


Fig. 1

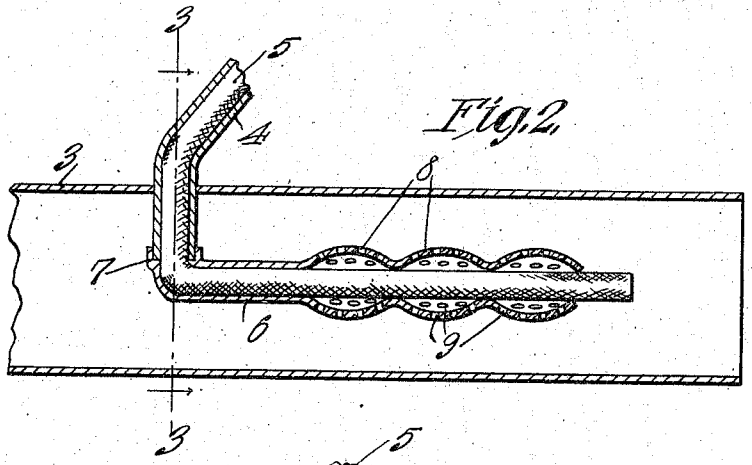


Fig. 2.

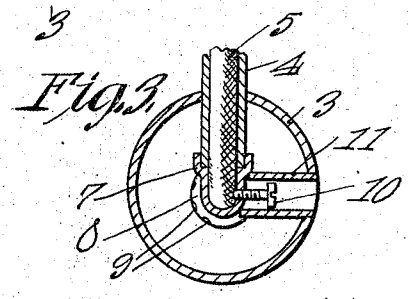


Fig. 3.

Witnesses

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UNITED STATES PATENT OFFICE.

GEORGE H. BROWN AND WILLIAM A. JONES, OF FAIR MOUNT, GEORGIA.

MOISTURE-SUPPLYING DEVICE FOR CARBURETER AIR-SUPPLY.

1,195,905. Specification of Letters Patent. Patented Aug. 22, 1916.

Application filed March 31, 1916. Serial No. 88,120.

To all whom it may concern:

Be it known that we, GEORGE H. BROWN and WILLIAM A. JONES, citizens of the United States, residing at Fair Mount, in the county of Gordon, State of Georgia, have invented a new and useful Moisture-Supplying Device for Carbureter Air-Supply, of which the following is a specification.

The present invention appertains to moisture supplying devices, and has for its object the provision of simple and inexpensive yet practical and efficient means for supplying moisture to the air supplied to the carbureter of an automobile, stationary or other hydrocarbon engine, whereby to reduce the formation and deposit of carbon in the cylinders, and to lessen the proportional amount of fuel necessary.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed can be made within the scope of what is claimed without departing from the spirit of the invention.

The invention is illustrated in the accompanying drawing, wherein:

Figure 1 is an elevation illustrating the invention applied to the carbureter and radiator of an automobile, portions being broken away. Fig. 2 is an enlarged longitudinal section, portions being broken away. Fig. 3 is a cross section taken on the line 3—3 of Fig. 2.

In the drawing, there is illustrated the carbureter 1 and radiator 2 of an automobile, although it is to be understood that the present device can be used with various portable and stationary engines of the internal combustion type.

In carrying out the invention, the carbureter 1 if not already supplied with one, is provided with an air suction extension or pipe 3 through which the air is sucked to the carbureter, and a suitable metallic tube 4 has one terminal extending through the wall of the pipe or conduit 3, and has its other terminal extended through the radiator 2 adjacent the upper portion thereof. A chamois or other equivalent wick 5 extends through the tube 4 from the interior of the radiator to the interior of the air suction pipe 3, and one terminal of the wick depends within the radiator 2 to dip in the water.

Disposed within the pipe 3 axially or concentrically thereof is a tube 6 having one end bent angularly, as at 7, and fitted upon the respective terminal of the tube 4. The tube 6 projects toward the end of the pipe 3, and is provided with a longitudinal series of annular bulges or swells 8 provided with perforations or apertures 9 throughout their areas. The wick 5 extends from the tube 4 through the tube 6 and the bulges 8 thereof, and can be grasped from the end of the pipe 3 to pull the wick out farther from the tube 6 when desired.

As a means of holding the wick in any adjusted position, a set screw 10 is threaded through the tube 6 adjacent the end 7 thereof, to contact with the wick where it turns from the tube 4 into the tube 6, and said set screw 10 is preferably housed within a sleeve 11 extending from the tube 6 to one side wall of the pipe 3 and adapted for the reception of a screw driver or other implement used for rotating the screw.

In operation, water will be raised by the wick by capillary attraction, assisted by the siphonic action due to the fact that the wick dips within the water and then extends downwardly upon the outside of the radiator below the water level, and the moisture is thus conducted along the wick into the tube 6 within the pipe 3, and will be supplied to the air which rushes or flows through the pipe 3 to the carbureter. Air can flow through the apertures 9 of the bulges 8, thus materially increasing the moistening of the air, which is highly desirable to facilitate the operation of the engine. The engine will run smoother, requiring less fuel, and the formation and deposit of carbon in the cylinders is reduced to a minimum. The water in the upper portion of the radiator 2 is the hottest, so that the water supplied to the wick 5 will be warm whereby warm moisture will be supplied to the air.

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

1. The combination with the radiator and carbureter of an internal combustion engine, said carbureter having an air supply pipe, of a tube having its opposite terminals ex-

tending into the radiator and said pipe, and a wick extending through said tube from within the radiator to a point within said pipe for supplying moisture to the air flowing through said pipe to the carbureter.

2. In a device of the character described, the combination with an air supply pipe, of a carbureter, a tube extending within said pipe, and a moisture supplying wick extending through said tube, said tube having an apertured portion for the circulation of air therethrough adjacent the wick.

3. In a device of the character described, the combination with the air supply pipe of a carbureter, of a tube extending within said pipe, and a moisture supplying wick extending through said tube, said tube having an apertured bulged portion for the circulation of air therethrough.

4. In a device of the character described, the combination with the air supply pipe of a carbureter, of a tube extending axially within said pipe, and a moisture supplying wick extending through said tube, said tube having a longitudinal series of annular bulges provided with apertures for the circulation of air.

5. In a device of the character described, the combination with the air supply pipe of a carbureter, of a tube having one terminal extending through the wall of said pipe, a second tube connected to said terminal and extending axially within said pipe toward the end thereof, a moisture supplying wick extending through said tubes, the second mentioned tube having an apertured bulged portion for the circulation of air, a set screw carried by the second mentioned tube for clamping the wick, and a sleeve extending from the second mentioned tube to one wall of said pipe and housing said screw.

In testimony that we claim the foregoing as our own, we have hereto affixed our signatures in the presence of two witnesses.

GEORGE H. BROWN.
WILLIAM A. JONES.

Witnesses:
AUDREY VINCENT,
H. D. COWART.