J. JONES.

CARBURETER ATTACHMENT.

APPLICATION FILED AUG. 12, 1918.

1,344,001. **Patented June 22, 1920.**

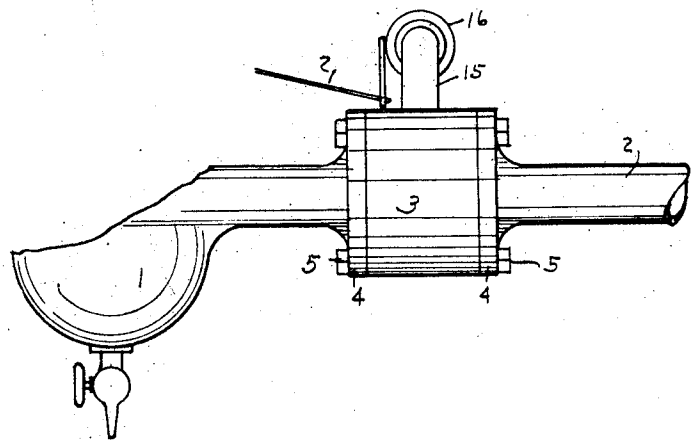


Fig. 1.

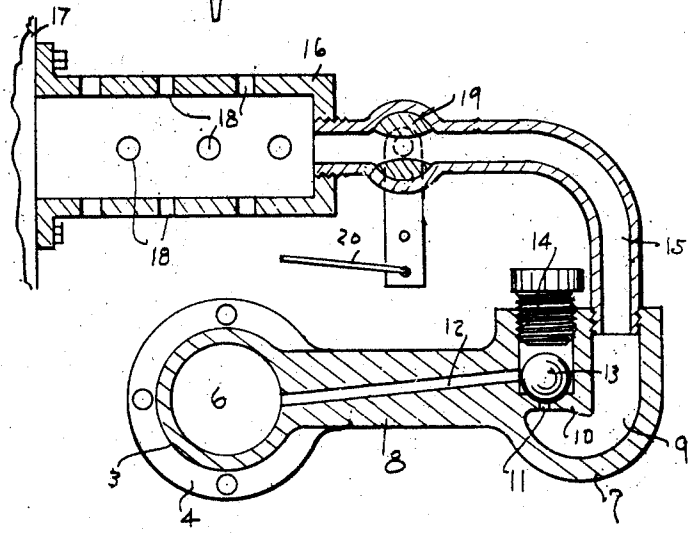


Fig. 2.

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CARBURETER ATTACHMENT.

1,344,001. Specification of Letters Patent. Patented June 22, 1920.

Application filed August 12, 1918. Serial No. 249,429.

To all whom it may concern:

Be it known that I, JACOB JONES, a citizen of the United States, residing at Issaquah, in the county of King and State of Washington, have invented certain new and useful Improvements in Carbureter Attachments, of which the following is a specification.

This invention relates to carbureter attachments and has for its principal object to provide an improved and novel means for automatically admitting a quantity of air in proportion to the amount required to form the best fuel mixture; to provide an improved and novel construction, in a device of the class described, for automatically admitting air and for preheating the air before admission.

Other objects will appear as my invention is more fully explained in the following specification, illustrated in the accompanying drawings and pointed out in the appended claim.

In the drawings Figure 1 is a side elevation of my device shown attached to a fragment of a carbureter. Fig. 2 is an enlarged longitudinal section of the device.

Referring more particularly to the drawings numeral 1 indicates a carbureter for use with a liquid fuel such as gasolene and may be of any approved type. An intake manifold 2 goes to the engine cylinders (not shown). Intermediate the manifold and the carbureter the body 3 of applicant's device is connected by means of flanges 4 and bolts 5. Body 3 has a central opening 6 through it in line with a similar opening in the manifold 2. Extending laterally from the body 3 a valve body 7 is connected to body 3 by an arm 8. Valve body 7 is chambered as at 9 and has a valve seat 10 which is ported as at 11. Port 11 connects chamber 9 to a passage 12 which leads to opening 6. A ball valve 13 normally closes port 11 and its movement off its seat is regulated by a limit screw 14. A pipe 15 leads from chamber 9 to a preheater 16 which is connected to one cylinder 17 of the engine and is provided with perforations 18 to admit air. The heat in the cylinder keeps the preheater warm at all times. A ported one way valve 19 is inserted in pipe 15 and is regulated from the driver's seat along with the throttle valve. In fact the movement of the one way valve through the rod 20 and the throttle valve may preferably be simultaneous, but movements are in opposite directions so that the valve 19 closes as the throttle valve opens. The throttle valve is half open when the valve 19 is full open and when the throttle valve is completely open the valve 19 is closed. In other words as the gas is increased beyond a certain point the air supply is shut off.

In operation the suction of the engine cylinders causes a partial vacum in opening 6 and consequently above valve 13 thus permitting the valve to open, and admit a quantity of air in proportion to opening and consequently the suction or vacuum. The air is drawn through the preheater and therefore is always warm. This is a distinct advantage in a device of this class.

While I have shown a particular form of embodiment of my invention, I am aware that many minor changes therein will readily suggest themselves to others skilled in the art without departing from the spirit and scope of the invention, and I therefore desire to avoid being limited to the exact form shown and described.

Having described my invention, what I claim as new and desire to protect by Letters Patent, is:—

The combination with an intake manifold and engine cylinder, of a unit for delivering heated air to the manifold, comprising a preheating casing connected directly to the engine cylinder and having openings to the atmosphere, an arm connected to the intake having a small bore open to said intake, the free end of the arm being formed with a U-shaped channel with both ends opening through the upper surface of the arm, a transverse partition in said channel and formed with an opening, the arm-bore opening into said channel on one side of the partition, a pipe connecting said channel on the opposite side of said partition with the preheating casing, a gravity-operated valve coöperating with the opening in the partition and with the arm-bore inlet into the channel, and a plug threaded into one end of the channel to control the opening movement of said valve.

In testimony whereof I affix my signature in the presence of two witnesses.

JACOB JONES.

Witnesses:

MARGUERITE LEYDA,

FRED P. GORIN.