

W. H. HAMNER.
AIR INLET DEVICE.
APPLICATION FILED DEC. 9, 1911.

1,050,214.

Patented Jan. 14, 1913.

Fig. 1.

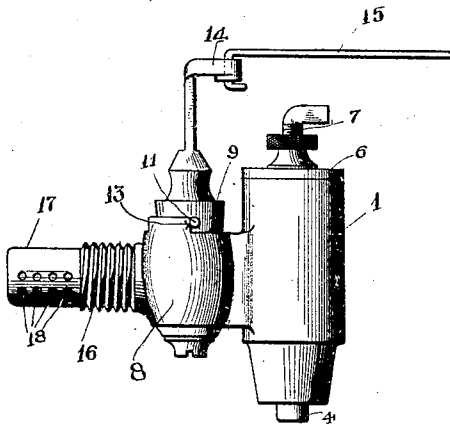


Fig. 2.

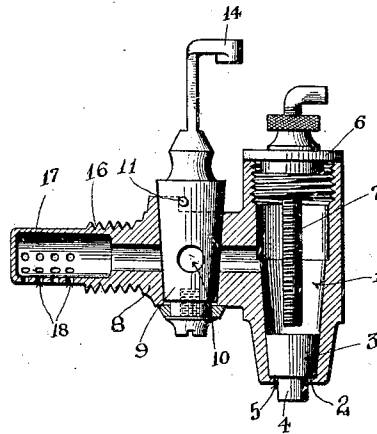


Fig. 3.

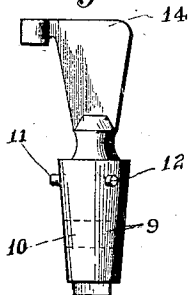
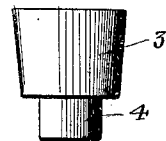


Fig. 4.



Witnesses:
Sully Russo.
J. D. Thornburgh.

Inventor
William H. Hamner.
By Lyon & Hackley
attys.

UNITED STATES PATENT OFFICE.

WILLIAM HENRY HAMNER, OF LOS ANGELES, CALIFORNIA.

AIR-INLET DEVICE.

1,050,214.

Specification of Letters Patent.

Patented Jan. 14, 1913.

Application filed December 9, 1911. Serial No. 664,891.

To all whom it may concern:

Be it known that I, WILLIAM H. HAMNER, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented a new and useful Air-Inlet Device, of which the following is a specification.

This invention relates to a device adapted to be attached to the inlet pipe of an internal combustion engine between the carbureter and inlet valve, and the object of the invention is to enable the introduction of air into the induction pipe to combine with the mixture therein and thereby increase the power and reduce the amount of gasoline required.

A further object is to provide for shutting the air inlet device so that it will not permit air to enter the induction pipe, this being specially desirable when cranking the engine.

A further object is to permit of the introduction of kerosene or other decarbonizing agent into the engine.

Referring to the drawings:—Figure 1 is a side view of the device. Fig. 2 is a vertical section through the device. Fig. 3 is a side elevation in detail of the shut-off valve. Fig. 4 is a side elevation in detail on an enlarged scale of the automatic valve.

1 designates a valve chamber which, as clearly shown in Fig. 2, is tapered internally throughout its lower portion and provided with an inwardly directed shoulder 2 at the bottom. Loosely mounted in the valve chamber 1 is a conical valve 3 which normally rests on the shoulder 2 and has a projection 4 extending through the air inlet opening 5 in the bottom of the valve chamber 1. A plug 6 is screwed in the upper end of the valve chamber 1 and a screw 7 extends through the plug 6 and serves as an adjustable stop to limit the upward movement of the valve 3.

Extending at right angles from the valve chamber 1 is a stem 8 having a shut-off valve 9, the latter having an orifice 10 and pins 11 and 12 adapted to strike against shoulders 13 on the stem 8. The valve 9 also has a crank arm 14 to which a rod or

wire 15 may be connected and which may extend to a convenient point on the dashboard of the automobile, or on the steering wheel, not shown. The stem 8 has a threaded portion 16 adapted to be screwed into the induction pipe, not shown, and a hollow distributing drum 17 communicates with the stem 8 and is provided with a series of perforations 18 in its lower portion so that air which is sucked in will pass downwardly out of the drum 17 and thereby become more perfectly intermixed with the mixture in the induction pipe than if the air were permitted to escape at the top of the drum.

The suction of the engine acting through the stem 8 lifts the valve 3 and draws air through the air inlet 5, thence through the stem 8, thence through the perforations 18 into the induction pipe where it combines with the mixture in the induction pipe, and thence passes into the engine. The amount of air thus permitted to enter may be regulated by adjusting the screw 7 to regulate the vertical movement of the valve 3. In cranking the engine the back pressure which enters the device is held from passing out by the valve 3 which automatically closes.

If it be desired to entirely shut off the device so that no air can enter the induction pipe the valve 9 may be turned into the position shown in Fig. 2 so that the passage 10 extends transversely to the stem 8. If it be desired to introduce kerosene or other decarbonizing agent into the engine a vessel containing it may be placed at the air inlet 5 so that the suction from the engine will draw the same through the valve chamber 1 and stem 8 into the cylinder.

What I claim is:—

An attachment for motor vehicle engines, comprising a vertical valve chamber with an air inlet at its lower end and formed with a valve seat at the air inlet, a weighted valve normally resting on said seat, a plug screwed in the upper end of the valve chamber, an adjusting screw extending through said plug with its end near the valve to limit the upward movement of the valve, a stem extending transversely from the valve chamber, a perforated distributing drum on the

end of the stem, said stem being externally threaded for attachment to the induction pipe, a shutoff valve in said stem between the threaded portion of the stem and valve chamber, and a connection attached to the
5 shutoff valve and adapted to extend to a convenient point on the motor vehicle.

In testimony whereof, I have hereunto set my hand at Los Angeles, California, this 2d day of December 1911.

WILLIAM HENRY HAMNER.

In presence of—

G. F. HACKLEY,
GLADYS RUSSELL.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."