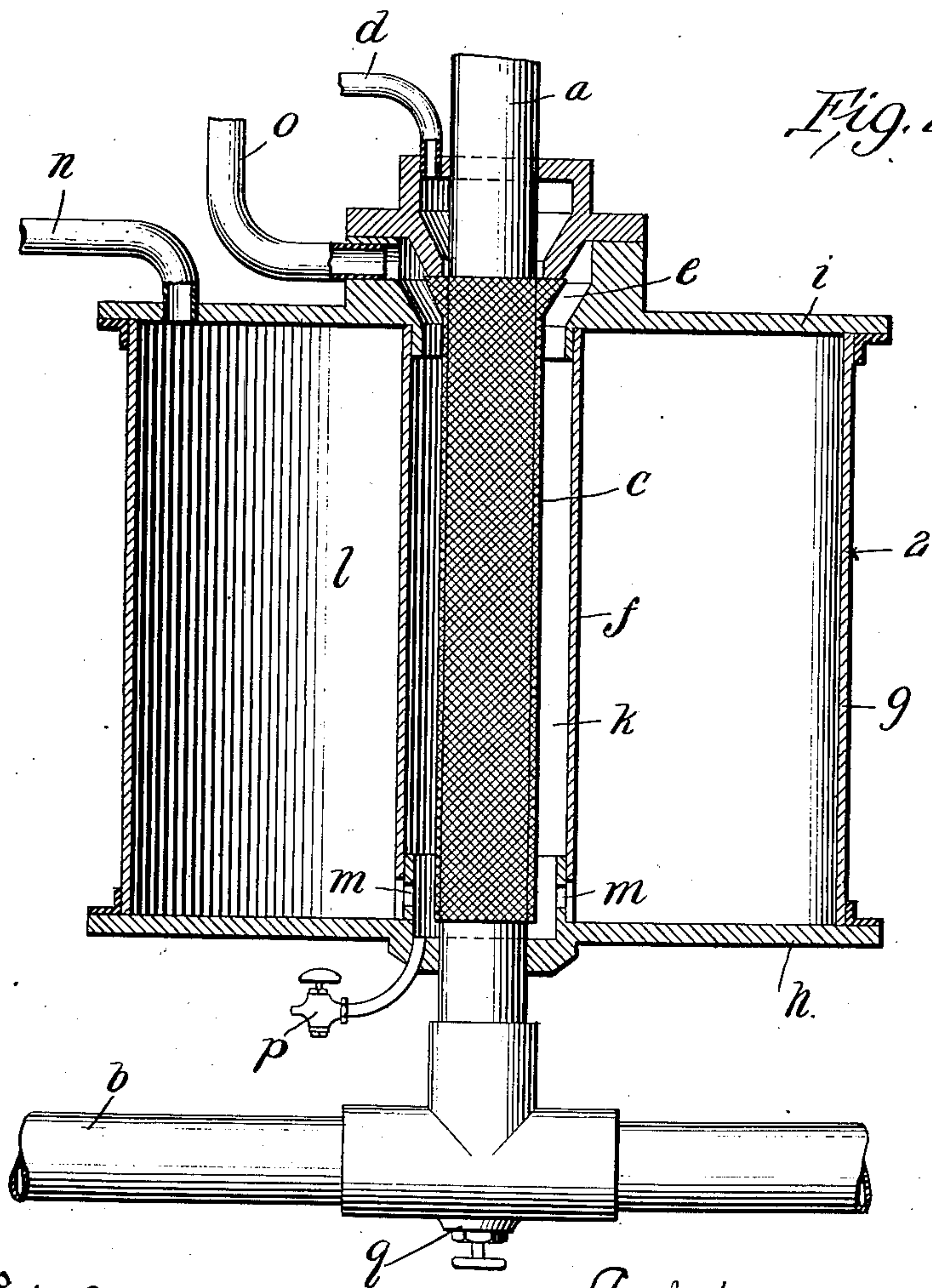
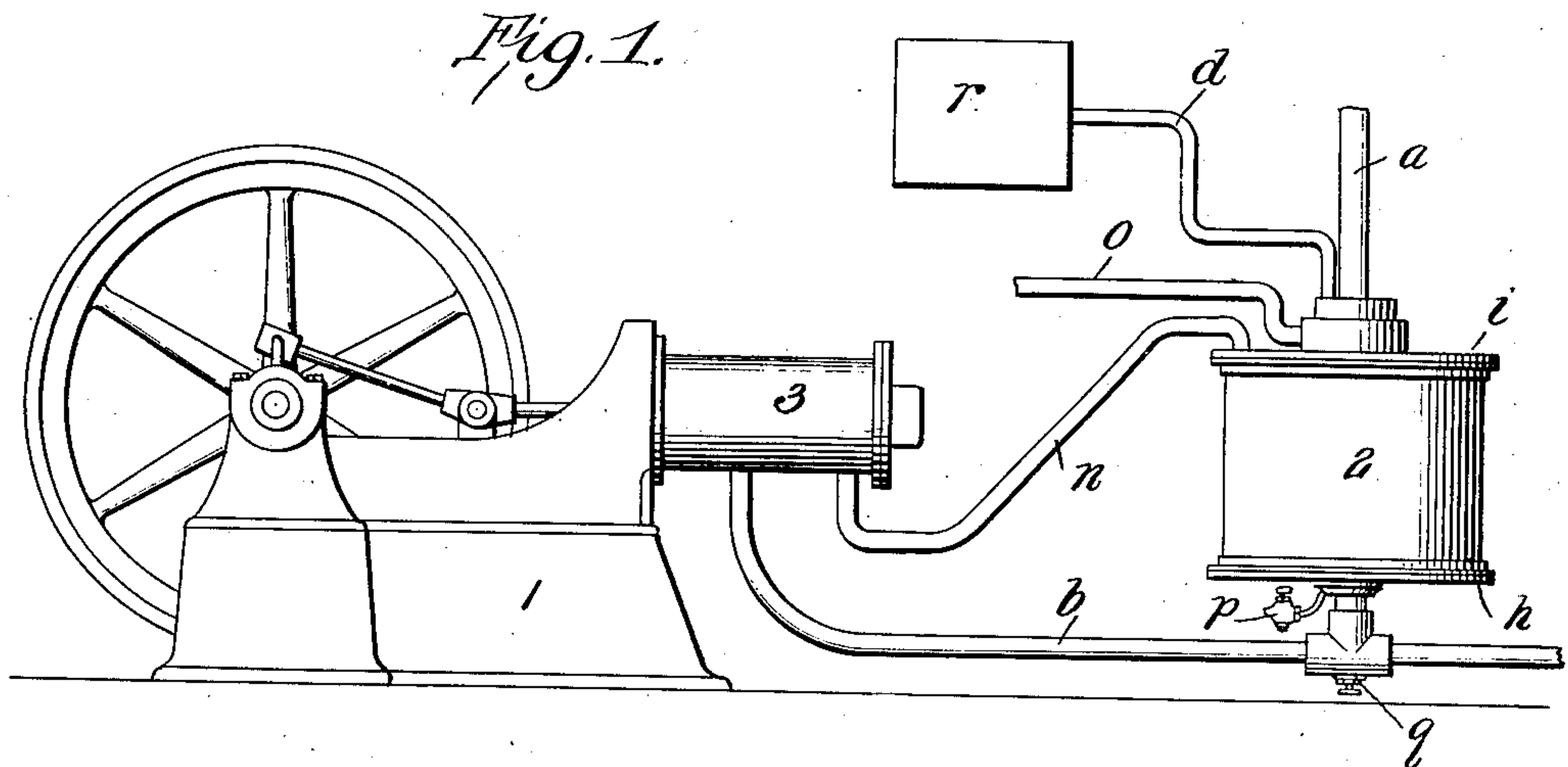


No. 894,389.

PATENTED JULY 28, 1908.

A. A. LOUIS.  
CARBURETER FOR EXPLOSION ENGINES.

APPLICATION FILED NOV. 10, 1905.



Witnesses  
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# UNITED STATES PATENT OFFICE.

ANDRÉ ADOLPHE LOUIS, OF PARIS, FRANCE.

## CARBURETER FOR EXPLOSION-ENGINES.

No. 894,389.

Specification of Letters Patent.

Patented July 28, 1908.

Application filed November 10, 1905. Serial No. 286,720.

To all whom it may concern:

Be it known that I, ANDRÉ ADOLPHE LOUIS, a citizen of the Republic of France, residing at 75 Boulevard Strasbourg, Paris, France, have invented certain new and useful Improvements in Carbureters for Explosion-Engines, of which the following is a specification.

The present invention relates to a carbureter for explosion engines. In my improved carbureter I pass the exhaustion gases from the engine through the carbureter and I surround the conduit for said gases by a piece of wire gauze and introduce the hydrocarbon liquid between the wire gauze and the conduit so as to cause the liquid to adhere to the conduit and become heated by the same. The necessary air is introduced into a chamber surrounding the wire gauze and mixes with the volatile liquid.

One embodiment of the invention is shown in the accompanying drawing by the way of example.

Figure 1 is a diagrammatic view of an explosion engine provided with my improved carbureter, and Fig. 2 is a vertical section on an enlarged scale, through the carbureter, some of the parts being shown in elevation.

1 designates the engine having the cylinder 3.

2 is the carbureter through which passes a pipe *a* branched from the exhaust pipe *b* of the engine. At the point of junction of the pipes *a* and *b* a three-way valve *g* is arranged through the medium of which the flow of gas through the pipe *a* may be regulated. The pipe *a* is surrounded by a piece of wire gauze *c* which extends upwardly to a funnel *e*.

*r* is the distributor from which the hydrocarbon is supplied to the funnel *e* by means of a pipe *d*. From the funnel *e* the liquid passes downwardly between the pipe *a* and the wire gauze *c*. By reason of the very strong capillary force between the pipe *a* and the wire gauze *c* the liquid spreads over the entire surface of the pipe *a* which is heated by the exhaustion gases from the engine, and a rapid volatilization of the liquid therefore

takes place. A tube *f* surrounds the tube *a* so as to leave a space *k* between the tubes.

*g* is the side wall of the carbureter which surrounds the pipe *f* so as to provide a chamber *l*.

*i* is the top and *h* is the bottom of the carbureter. The pipe *f* is fitted air-tight to the top *i* while the two chambers *l* and *l* communicate with each other at the bottom through openings *m*.

*o* is the air inlet pipe and *n* is a pipe leading from the chamber *l* to the inlet opening of the cylinder.

The operation of the device is as follows: The suction stroke of the engine draws air into the chamber *k* through which the air passes and, in which it is charged with the liquid. The carbureted air is drawn through the openings *m* into the chamber *l* and passes finally into the cylinder 3 through the pipe *n*. In case the liquid is not entirely evaporated, the residues may be drawn out from the chamber *k* by means of a faucet *p*.

The temperature of the carbureter may be regulated by means of the valve *v*.

Having described my invention what I claim as new is:

In an explosion engine, a carbureter having a conduit through which the exhaust gases of the engine pass, a funnel surrounding said conduit, a piece of wire gauze extending downwardly from the funnel longitudinally of the conduit, and surrounding the conduit, a pipe surrounding the conduit and the wire gauze in spaced relation and having an outlet opening to the interior of the carbureter, means for feeding liquid through the funnel to the space between the conduit and the wire gauze, and means causing air to pass through the space between said pipe and the wire gauze to absorb the liquid fed to the space between the wire gauze and the conduit.

The foregoing specification signed at Paris, France this 27th day of September, 1905.

ANDRÉ ADOLPHE LOUIS.

In presence of two witnesses:

SVEND OLSEN,  
LOUIS MICHELS.