

H. U. JOHNSON.
VAPORIZING DEVICE.
APPLICATION FILED JUNE 6, 1916.

1,295,513.

Patented Feb. 25, 1919.

Fig. 1.

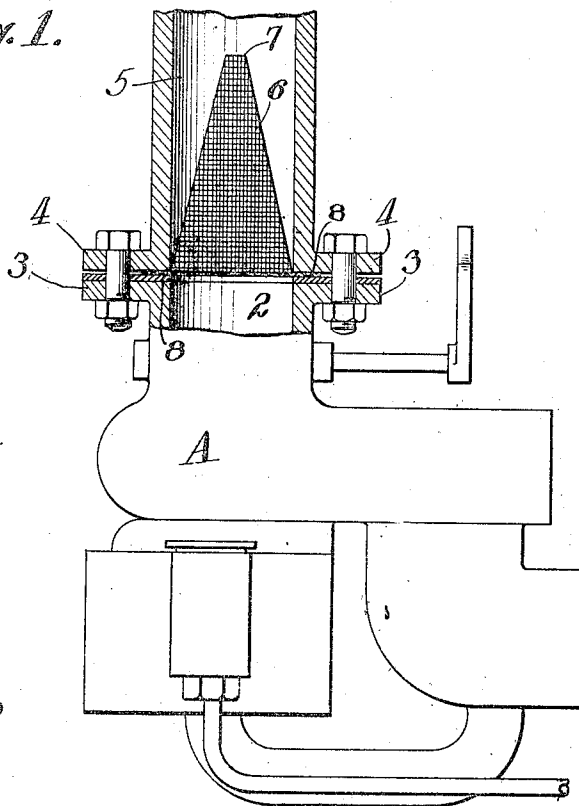


Fig. 2.

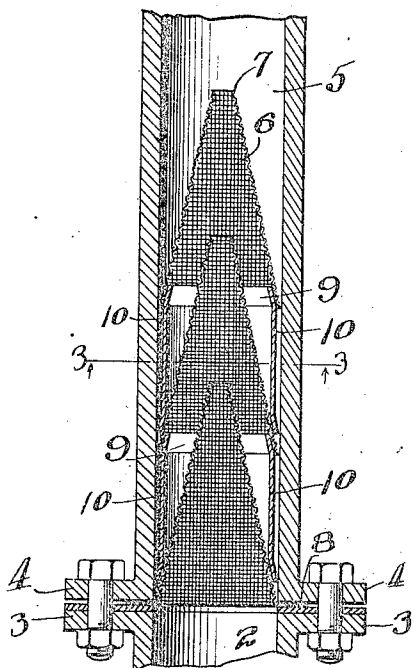
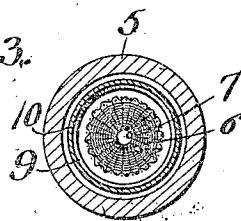


Fig. 3.



WITNESSES

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HERMAN U. JOHNSON, OF WAUKEGAN, ILLINOIS, ASSIGNOR OF ONE-HALF TO FREDRIC C. BROWN, OF WAUKEGAN, ILLINOIS.

VAPORIZING DEVICE.

1,295,513.

Specification of Letters Patent.

Patented Feb. 25, 1919.

Application filed June 6, 1916. Serial No. 102,019.

To all whom it may concern:

Be it known that I, HERMAN U. JOHNSON, a citizen of the United States, residing at Waukegan, in the county of Lake and State of Illinois, have invented certain new and useful Improvements in Vaporizing Devices, of which the following is a specification.

This invention has relation to vaporizing devices for internal combustion engines, and the nature and objects thereof will be readily apparent to those skilled in the art to which it appertains in the light of the following explanation of the accompanying drawings, illustrating what I now believe to be the preferred embodiment or mechanical expression of my invention from among other forms and arrangements within the spirit thereof and the scope of the appended claim.

However, an object of the invention is to provide means for producing a homogeneous mixture of air and fuel when the invention is used in connection with internal combustion engines employing a liquid hydrocarbon or other volatile fluid as fuel, said means comprising substantially cone-shaped members of foraminous material adapted to be disposed in the path of flow of the mixture, before its entrance into the engine cylinder.

In addition to the foregoing, my invention comprehends improvements in the details of construction and arrangement of parts to be hereinafter described and particularly pointed out in the appended claim.

In the accompanying drawings, in which similar and corresponding parts are designated by the same characters of reference throughout the several views in which they appear;

Figure 1 is a view in side elevation of a carbureter of conventional type with the intake manifold in section, and illustrating the application of my invention.

Fig. 2 is a view of the manifold in section illustrating a slightly different method of application, and

Fig. 3 is a transverse section on the line 3-3 of Fig. 2.

With reference to Fig. 1 of the drawings, A indicates a carbureter of conventional

type and having the usual flanged outlet opening 2, to the flanges 3 of which is secured the flanges 4 of an intake manifold 5. My invention comprehends in its essentials a cone-shaped member 6 formed of foraminous material, provided with an opening 7 at its apex, and an annular flange 8 at its base portion, which flange is held between the flanges 3 and 4 mentioned above.

The utility of the device depends upon the fact that the air which is drawn through the carbureter and which becomes laden during its passage with particles of liquid fuel, due to the vaporization of said fuel, is broken up into many streams after passing through the material forming the cone. The mixture as a result is more homogeneous than if the device in question were not employed.

In Fig. 2, a plurality of cone devices are employed, and to that end each of the additional cones are formed at their base portions with annular flanges 9, formed integrally with tubular supporting members 10.

The cones are disposed in superposed or nested relation being, however, spaced apart by reason of the engagement of the lower edge of one cone with the sides of the cone below. When the mixture to be used is rich in hydrocarbon, a plurality of cones are employed in the manner described and a uniform intermixture of fuel and air is obtained.

While I have illustrated and described my invention with some degree of particularity, I realize that in practice various alterations thereover may be made, and I therefore reserve the right and privilege of changing the form of the details of construction, or otherwise altering the arrangement of the correlated elements, without departing from the spirit of the invention or the scope of the appended claim.

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

A vaporizing device for internal combustion engines comprising a plurality of substantially frusto-conical foraminous members arranged in nested relation and spaced

from each other, tubular members inclosing
certain of said foraminous members and be-
ing shorter than the latter, one end of each
tubular member being inclined inwardly and
5 fitting within the large end of the next ad-
jacent foraminous members, and the op-
posite ends of said tubular members being
flared and snugly fitting upon the exterior

of their respective foraminous members near
the bases thereof.

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

HERMAN U. JOHNSON.

Witnesses:

FREDERIC C. BROWN,
W. A. JONES.