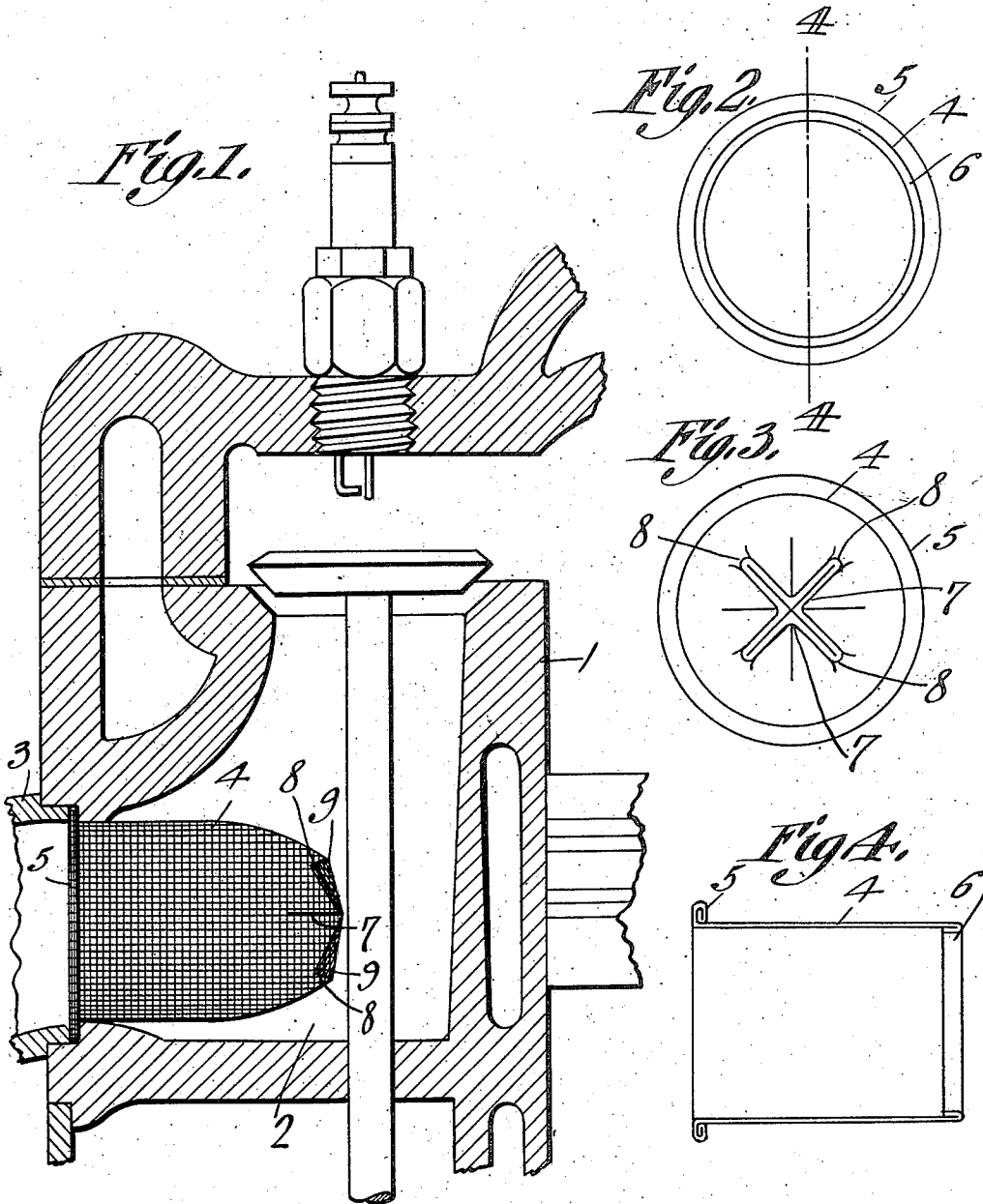


W. F. HUNTER.
GASEOUS FUEL MIXER.
APPLICATION FILED MAY 24, 1917.

1,311,071.

Patented July 22, 1919.



W. F. Hunter
Inventor

Witness

J. R. Dineen
H. R. Mitchell

By C. A. Snow & Co.
Attorney

UNITED STATES PATENT OFFICE.

WILLIAM FLETCHER HUNTER, OF ARCATA, CALIFORNIA, ASSIGNOR OF ONE-HALF TO
CARL L. KOSTER, OF SAN FRANCISCO, CALIFORNIA.

GASEOUS-FUEL MIXER.

1,311,071.

Specification of Letters Patent.

Patented July 22, 1919.

Application filed May 24, 1917. Serial No. 170,750.

To all whom it may concern:

Be it known that I, WILLIAM F. HUNTER, a citizen of the United States, residing at Arcata, in the county of Humboldt and State of California, have invented a new and useful Gaseous-Fuel Mixer, of which the following is a specification.

The present invention relates to an attachment for the cylinders of internal combustion engines, for atomizing the fuel or mixture, to break the same into minute particles, and to vaporize the fuel.

It is the object of the invention to provide an extremely simple and inexpensive device of that nature, which can be readily applied, and which will fulfil its object in a practical and efficient manner.

With the foregoing and other objects in view, which will be apparent as the nature of the invention is better understood, the invention resides in the provision of a screen or foraminous member of novel construction for attachment to an engine cylinder, it being understood that changes in shape and details 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 a sectional detail of the intake portion of an engine cylinder, showing the device applied.

Fig. 2 is a diagrammatical end view of the screen prior to the closing of the inner end thereof.

Fig. 3 is a similar view showing the inner end of the screen bent or formed to close it.

Fig. 4 is a section of the line 4—4 in Fig. 2, this view being diagrammatical for sake of clearness, the illustration of the wire mesh being avoided.

In the drawing, there is illustrated a portion of an engine cylinder 1, having the intake chamber or pocket 2, the intake manifold 3 being clamped to the cylinder in communication with the chamber 2 for supplying the carbureted air thereto.

In carrying out the invention, there is provided a screen 4 of cylindrical, tubular or other suitable shape, having one end open and provided with an outturned

flange 5 clamped between the cylinder and manifold 3, to hold the screen in place, while the other end of the screen is closed and projects into the chamber 2. Thus, the carbureted air is constrained to flow through the fine apertures of the screen 4, whereby to break up the mixture or fuel into a fine spray, thereby atomizing the same, to enhance the combustion of the fuel within the cylinder. Furthermore, the screen in being associated with the cylinder itself, will be heated thereby, and the mixture in flowing through the screen will be heated, to vaporize the fuel, and thereby facilitating the combustion thereof. The outer open end of the screen is clamped between the cylinder and manifold, whereby the wall and inner closed end of the screen, which project into the chamber 2, are out of contact with the cylinder and surrounding parts, for the free flow of carbureted air therethrough into the chamber 2 and cylinder.

The screen 4 can be inexpensively manufactured from tubular stock, one end of the screen being turned outwardly and bent or rolled upon itself to provide the flange 5, as seen in Fig. 4, and the other end of the screen being bent back inwardly, as at 6, to avoid a frayed edge. To close the latter end of the screen, the same is folded inwardly, as at 7, in V-shaped folds fitting together, and providing wings 8. The folds in fitting together, will close the inner end of the screen, and in order to hold the wings 8 in place they are folded or bent back, as at 9.

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

1. A device of the class described, comprising a tubular screen closed at one end, and baffles formed from the material of the screen at the closed end thereof and extending toward the center of the screen.

2. A device of the class described, comprising a tubular screen closed at one end, and baffles formed from the material of the screen and extending toward the center thereof.

3. A device of the class described, comprising a screen of tubular formation closed at one end, said closed end being bent in-

wardly at a plurality of points thereby to
form integral wings extending radially in-
wardly toward the center of the tubular
screen at the closed end thereof, and an in-
5 tegral flange extending outwardly at the
opposite end of said screen.
In testimony that I claim the foregoing

as my own, I have hereto affixed my signa-
ture in the presence of two witnesses.

WILLIAM FLETCHER HUNTER.

Witnesses:

GEO. H. BURCHARD,
LEE F. WILEY.