

L. O. MILLER.
MIXER.
APPLICATION FILED SEPT. 14, 1920.

1,362,028.

Patented Dec. 14, 1920.

Fig. 1.

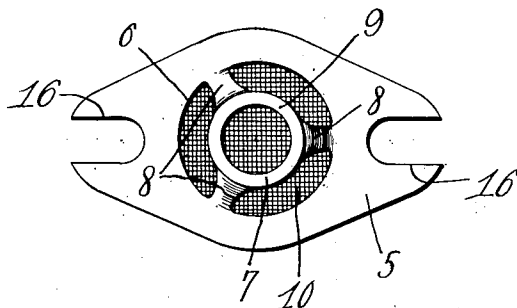


Fig. 2.

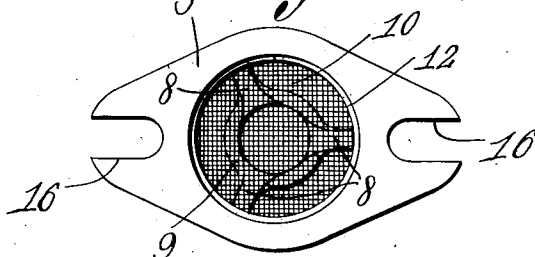
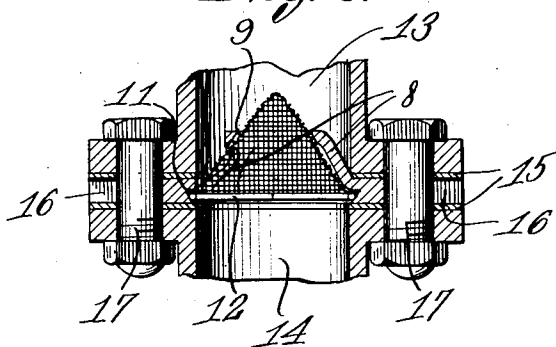


Fig. 3.



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UNITED STATES PATENT OFFICE.

LORIN OTTO MILLER, OF DUNKIRK, INDIANA.

MIXER.

1,362,028.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, LORIN OTTO MILLER, a citizen of the United States, residing at Dunkirk, in the county of Jay and State of Indiana, have invented a new and useful Mixer, of which the following is a specification.

The present invention relates to mixing devices to be employed in the pipe line between the carbureter and intake manifold of an engine, for mixing the gas after the same has passed through the carbureter, thereby insuring a thorough mixture of the gas and air.

An object of the invention is to provide a device of this character which may be readily and easily applied in the pipe line of a motor vehicle, the device being equipped with lateral extensions, to be clamped between adjacent sections of pipe.

A further object of the invention is the provision of a removable straining or mixing element, whereby the mixing element may be removed for cleaning purposes, or replaced in the event that the same becomes inoperative.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed, may be made within the scope of what is claimed, without departing from the spirit of the invention.

Referring to the drawing:—

Figure 1 illustrates a rear elevational view of the body portion of the device.

Fig. 2 illustrates a front elevational view of the same; and

Fig. 3 illustrates a sectional view through the mixer and adjacent pipe sections, between which the same is supported.

Referring to the drawing in detail, the reference character 5 designates the body portion of the device, which is formed preferably of aluminum, to insure an exceptionally light construction, and one which will not cause undue strain on the pipe line.

This body portion 5 is provided with a central circular opening 6, there being a guard 7 which includes leg portions 8 and a central circular portion 9, the guard being of a construction to extend beyond the plane of one of the side walls of the body portion 5 to act as a support for the mixing ele-

ment 10, which is in the form of a cone, constructed of a fine mesh material to permit particles of air and gas to pass there-through.

A recessed portion indicated at 11, provides a seat for one edge of the mixing element 10, there being provided a split ring 12 adapted to be positioned over the mixing element, to force the same into contact with the shoulder 11 and secure the mixing element within the body portion 5, the guard 7 being of a construction to closely engage the mixing element and support the same in its true form.

In order that an air-tight connection may be maintained between the adjacent ends of the pipe sections, which are indicated by reference characters 13 and 14 respectively, gaskets 15 are provided, which gaskets are of contours corresponding to the shape of the body portion 5, so that the gaskets will closely engage the body portion.

Openings 16 are formed in the body adjacent the ends thereof, which openings are designed to accommodate the securing bolts 17, which securing bolts also pass through openings provided in the flanges of the pipe sections 13 and 14 for securing the device within the pipe line.

In the operation of the device, it is obvious that as the gas passes through the pipe line on its entrance to the intake manifold, the gas becomes thoroughly vaporized by reason of the particles thereof passing through the mixing element.

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

A mixing device comprising a body portion having a central opening and having a guard formed integral therewith, the guard including leg portions and a circular portion formed integral with the leg portions, a cone-shaped mixing element formed of wire mesh material supported within the guard and contacting with the walls of the circular portion thereof at a point adjacent to the vertex of the cone shaped mixing element, and means for removably securing the mixing element to the body portion.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in presence of two witnesses.

LORIN OTTO MILLER.

Witnesses:

JAMES J. MCGARRELL,
ARCHIE H. HOFFMAN.