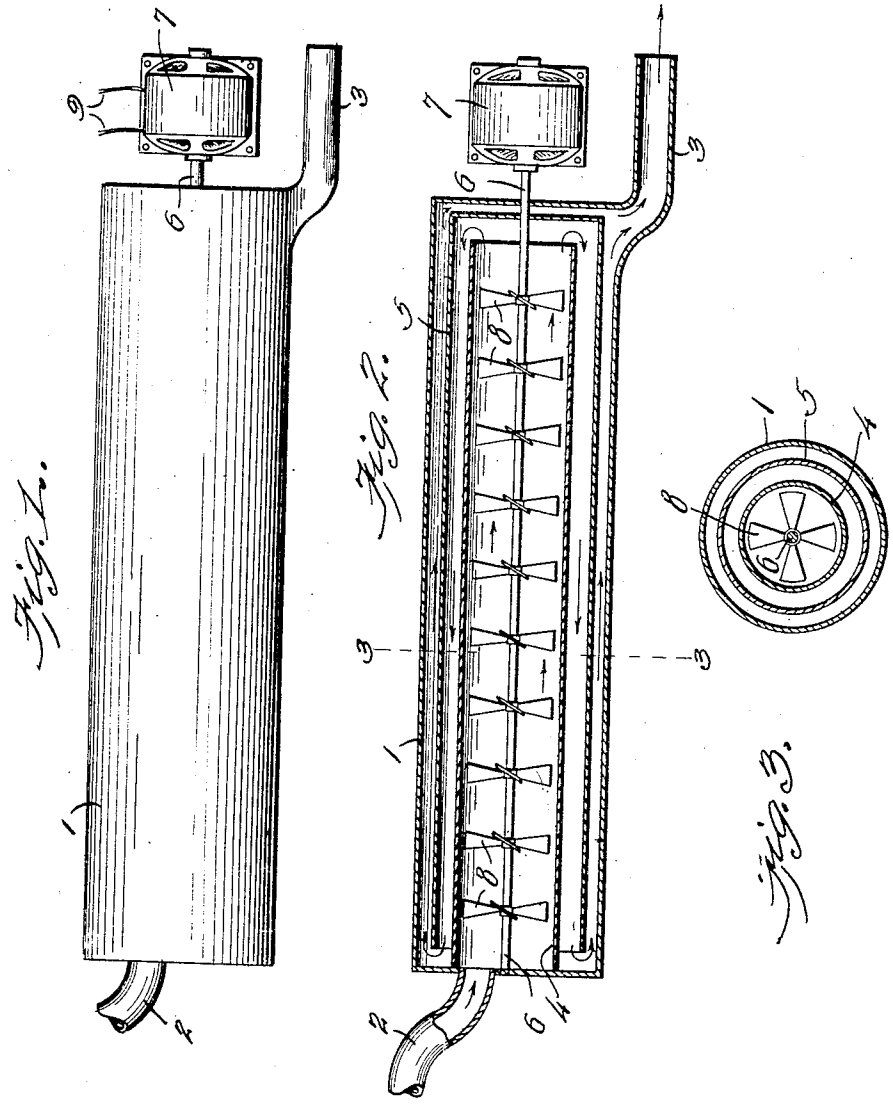
W. H. McMAHON.

MUFFLER.

APPLICATION FILED JULY 14, 1917.

1,272,485.

Patented July 16, 1918.



WITNESSES

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WILLIAM H. McMAHON, OF BRUCE, SOUTH DAKOTA.

MUFFLER.

1,272,485. Specification of Letters Patent. Patented July 16, 1918.

Application filed July 14, 1917. Serial No. 180,550.

To all whom it may concern:

Be it known that I, WILLIAM H. McMAHON, a citizen of the United States, residing at Bruce, in the county of Brookings and State of South Dakota, have invented certain new and useful Improvements in Mufflers, of which the following is a specification.

This invention relates to new and useful improvements in mufflers for internal combustion engines and the principal object of the invention is to provide means connected therewith for creating a suction therein for drawing the products of combustion from the engine.

Another object of the invention is to locate a number of rotary fans in the muffler so the products of combustion are drawn into the same and forced therefrom in a positive manner.

A further object of the invention is to arrange a plurality of fans on a single shaft and to drive said shaft by an electric motor.

Another object of the invention is to provide a device of this character, which is simple and durable in construction, reliable and efficient in operation and one which can be manufactured and placed upon the market at a minimum cost.

The invention also consists in certain other features of construction and in the combination and arrangement of the several parts, to be hereinafter fully described, illustrated in the accompanying drawings and specifically pointed out in the appended claims.

In describing my invention in detail, reference will be had to the accompanying drawings, wherein like characters denote like or corresponding parts throughout the several views, and in which:

Figure 1 is an elevation of the muffler supplied with my invention.

Fig. 2 is a longitudinal sectional view.

Fig. 3 is a section on line 3—3 of Fig. 1.

In these figures 1 indicates the shell of the muffler, while 2 indicates the inlet pipe and 3 the outlet pipe connected with said shell. 4 indicates the inner or central cylinder with which the inlet pipe 2 communicates. 5 indicates the middle cylinder for receiving the products of combustion from the inner cylinder and carrying them to the opposite end of the muffler where they enter the passage formed by the outer shell 1 and the said cylinder 5 which directs them to the outlet pipe 3. This construction of the muffler is similar to mufflers as now made and forms no part of my invention. In carrying out my invention I locate a shaft 6 in the inner cylinder which has its outer end extending beyond the muffler where it is connected with an electric motor 7, which is suitably supported and connected by the wires 9 to the source of electrical supply. The shaft 6 carries a number of fans 8 which when the shaft is rotated tend to draw the products of combustion through the pipe 2 from the engine and to force it through the muffler in a positive manner. Thus the danger of igniting the gases in the muffler is eliminated as said gases are prevented from remaining in the muffler. Furthermore, the products of combustion are driven from the engine and the whole system is kept clear of the burnt gases.

It is thought from the foregoing that the advantages and novel features of my invention will be readily apparent.

I desire it to be understood that I may make slight changes in the construction and in the combination and arrangement of the several parts, provided that such changes fall within the scope of the appended claims.

I claim as my invention:

1. A muffler comprising a plurality of concentrically arranged cylindrical casings spaced radially apart and with their ends positioned to form a tortuous passage, a longitudinal shaft extending throughout the length of the innermost casing, fan blades secured to said shaft, means for locating said shaft, an inlet pipe opening into one end of the innermost casing, and an outlet leading from the opposed end of the outer casing.

2. A muffler comprising three concentric casings spaced radially apart, the outer casings being closed at both ends and the inner and intermediate casings closed at one end

and open at the other, the closed end of one being adjacent the open end of the other thereby forming a tortuous passage, a revolubly mounted shaft extending longitudinally throughout the inner casing and having fan blades secured thereto, and means for rotating said shaft.

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

WILLIAM H. McMAHON.

Witnesses:
C. N. HALVORSON,
R. A. TOWNSEND.