C. GOROSA.

MUFFLER.

APPLICATION FILED JUNE 16, 1913.

1,131,233.

Patented Mar. 9, 1915.

2 SHEETS—SHEET 1.

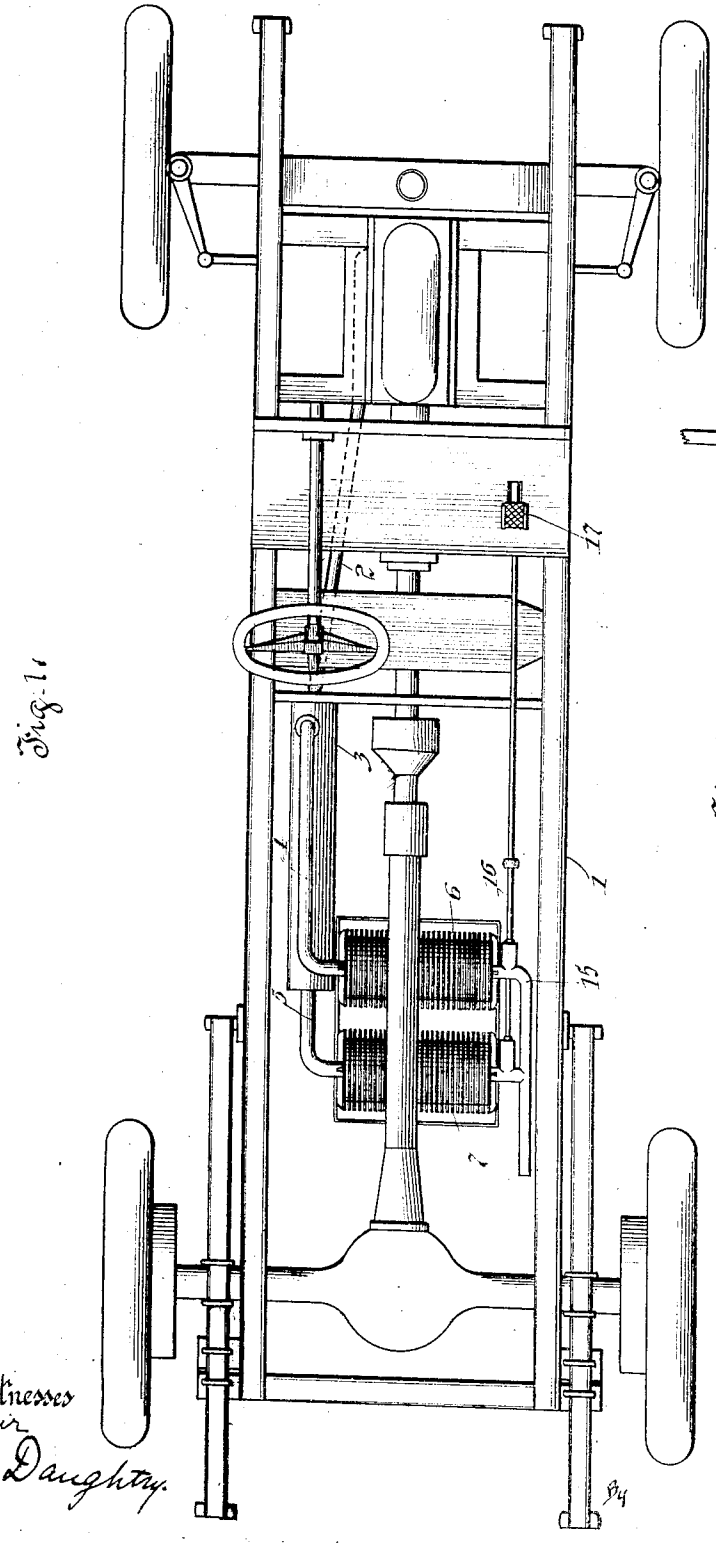


Fig. 1.

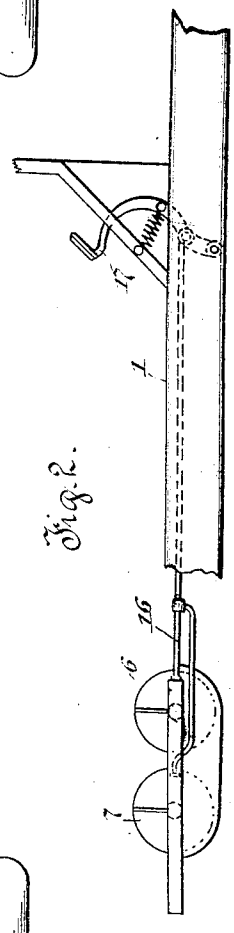


Fig. 2.

Witnesses
R. Weir
L. V. Daughtry.

Inventor
C. Gorosa
H. Dankers
Atty.

C. GOROSA.

MUFFLER.

APPLICATION FILED JUNE 16, 1913.

1,131,233.

Patented Mar. 9, 1915.

2 SHEETS—SHEET 2.

Fig. 3.

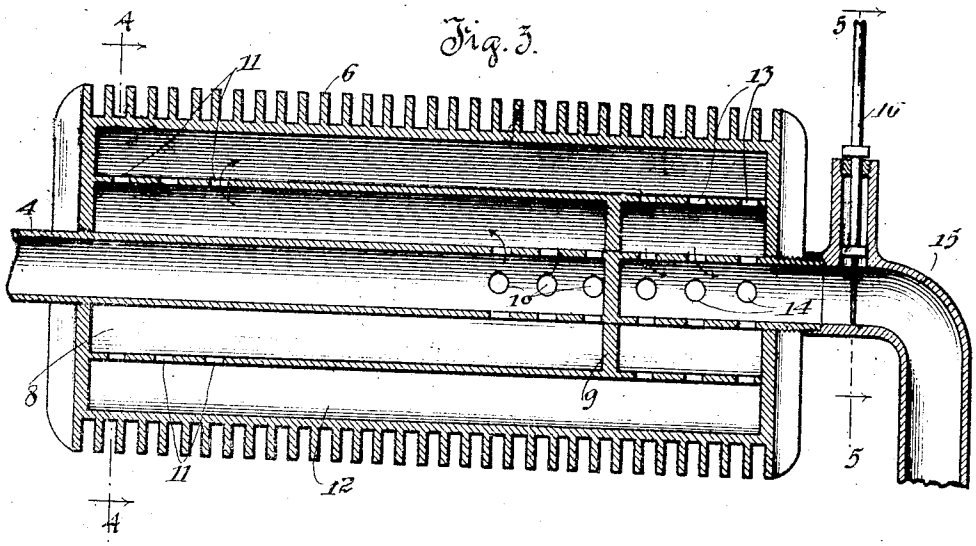


Fig. 4.

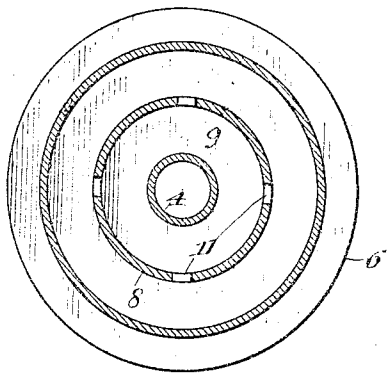


Fig. 5.

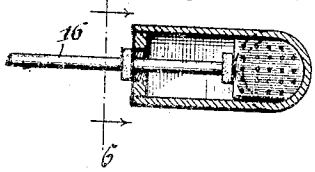


Fig. 6.



Witnesses
R. Weir
L. V. Daughtry.

Inventor
C. Gorosa
H. Sanders
Atty

UNITED STATES PATENT OFFICE.

CARL GOROSA, OF JAMAICA, NEW YORK.

MUFFLER.

1,131,233. Specification of Letters Patent. Patented Mar. 9, 1915.

Application filed June 16, 1913. Serial No. 773,857.

To all whom it may concern:

Be it known that I, CARL GOROSA, a citizen of Germany, residing at Jamaica, in the county of Queens and State of New York, have invented certain new and useful Improvements in Mufflers, of which the following is a specification.

This invention relates to improvements in mufflers for automobiles and more particularly to devices of this class provided with a plurality of gas chambers that permit gas expansion and consequent cooling of the gases within the muffler and that so automatically suppress the noise of the exhaust. A regulating valve in the exhaust pipe is provided, however, for use when the engine is running at low speed.

With the foregoing and other objects in view the invention consists in the combination and arrangement of parts to be hereinafter fully described in the following specification, pointed out in the claim and illustrated in the accompanying drawings which form a part of said specification and in which—

Figure 1 is a plan of an automobile embodying my improved muffler. Fig. 2 is a side elevation of the muffler. Fig. 3 is a section through one of the muffler drums showing the plurality of gas chambers. Fig. 4 is a section taken on line 4—4 of Fig. 3. Fig. 5 is a section taken on line 5—5 of Fig. 3. Fig. 6 is a section taken on line 6—6 of Fig. 5.

Like reference characters indicate corresponding parts throughout the several views.

1 is an automobile and 2 a pipe leading from the engine to the chamber 3 from which pipes 4 and 5 lead, respectively, to the muffler sections or drums 6, 7. Within each drum 6 or 7 a gas chamber 8 encircling the gas inlet pipe is provided and said chamber 8 is also provided with a baffle plate 9 that also passes through the gas inlet pipe. The inlet pipe is provided on one side of the baffle plate with a plurality of apertures 10 leading into the chamber 8 and said chamber at its end near the entrance of said gas inlet pipe is provided with a plurality of apertures 11 that lead into another gas chamber 12 disposed within the muffler drum but not pierced by the said baffle plate. Beyond the baffle plate the chamber 8 is provided with a plurality of apertures 13 communicating with the chamber 12, and the gas inlet pipe, which, beyond the baffle plate is an outlet pipe, is provided with a plurality of apertures 14 communicating with the chamber 8.

The pipes 4 or 5 are projected beyond their respective muffler drums and there provided with an exhaust 15 which is provided with a regulator valve 16 operated by a spring-pressed foot lever 17.

Operation: The exhaust coming from the engine enters one section of the gas chamber 8 in the muffler drum through the medium of the gas inlet pipe; since this gas cannot pass beyond the baffle plate in said gas inlet pipe or gas chamber it flows out through the apertures 11 of chamber 8 into chamber 12 and then back into the section of chamber 8 beyond the baffle plate through the apertures 13, then through the apertures 14 into the continuation of the gas pipe and out through the exhaust. The circulation of the gas has been sufficient to permit its expansion and cooling to such a point that it will pass from the exhaust almost or quite noiselessly. The valve 16 may be used, however, to suppress possible noise when the engine is running slowly.

What is claimed is:—

In a muffler for automobiles, an apertured gas-conveying pipe divided into sections comprising an inlet and an outlet pipe, a sectional gas chamber disposed about said gas-conveying pipe and formed with apertures communicating with both sections of said pipe, another gas chamber disposed about said sectional gas chamber and having an apertured wall in common therewith and valve-controlled outlet means for said muffler.

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

CARL GOROSA.

Witnesses:
RICHARD H. ASHBY,
ALBERT W. REIMELS.