

No. 790,248.

PATENTED MAY 16, 1905.

C. H. BLOMSTROM.

MUFFLER.

APPLICATION FILED OCT. 8, 1904.

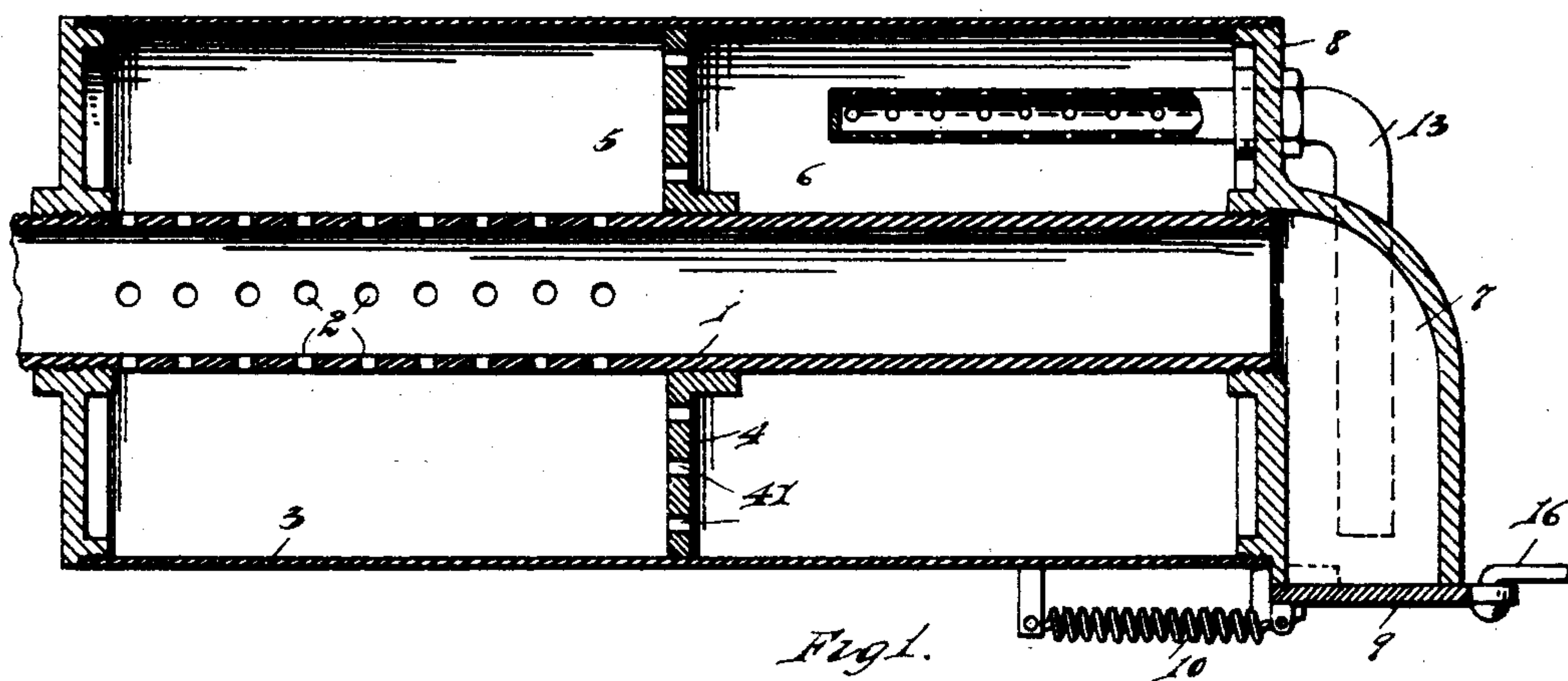


Fig. 1.

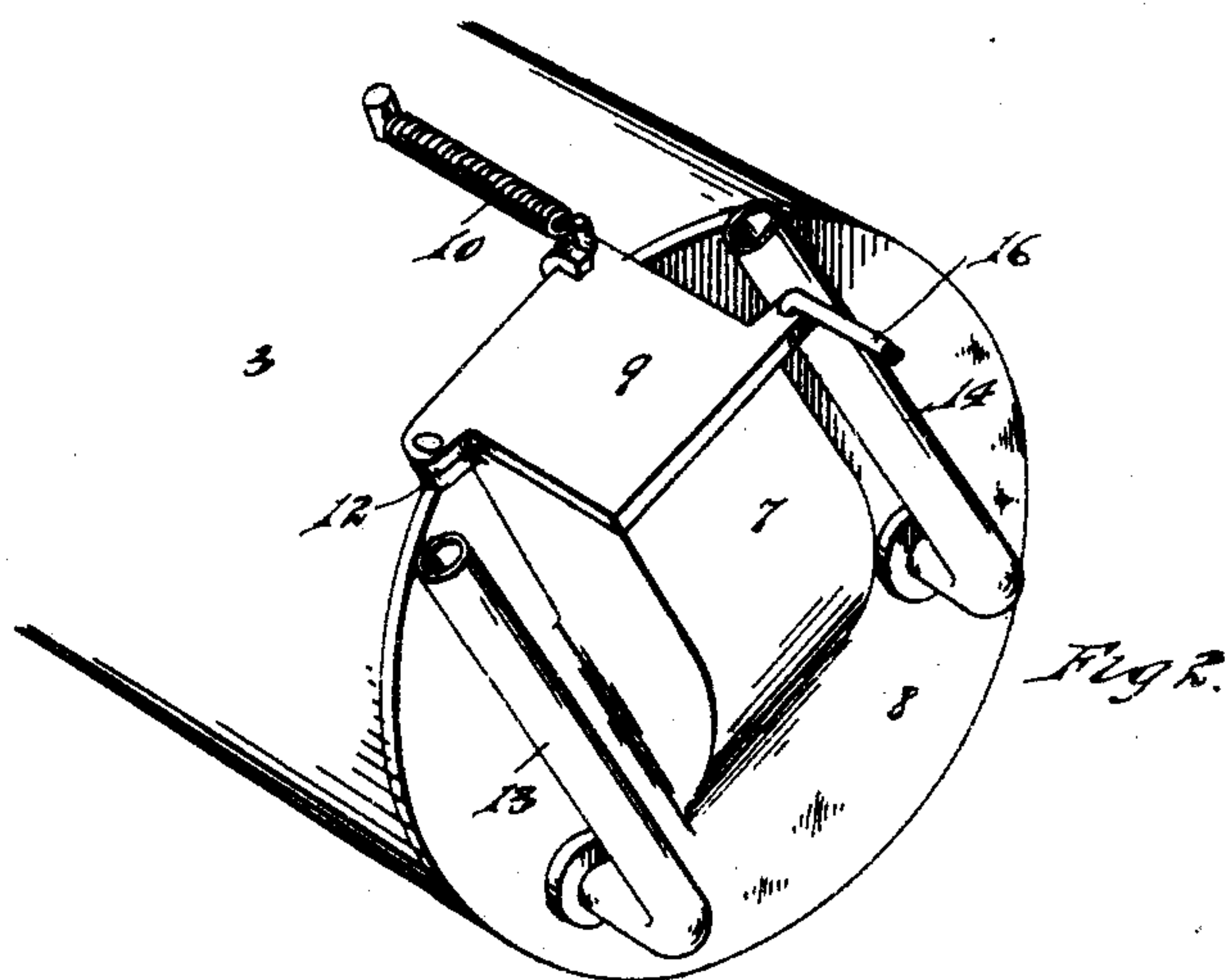


Fig. 2.

WITNESSES

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CHARLES H. BLOMSTROM, OF DETROIT, MICHIGAN, ASSIGNOR TO C. H. BLOMSTROM MOTOR COMPANY, OF DETROIT, MICHIGAN, A CORPORATION OF MICHIGAN.

MUFFLER.

SPECIFICATION forming part of Letters Patent No. 790,248, dated May 16, 1905.

Application filed October 8, 1904. Serial No. 227,690.

To all whom it may concern:

Be it known that I, CHARLES H. BLOMSTROM, a citizen of the United States, residing at Detroit, county of Wayne, State of Michigan, have invented a certain new and useful Improvement in Mufflers; and I declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

This invention relates to mufflers for explosive-engines.

It has for its object an improved muffler adapted to be connected to the exhaust-pipe of an explosive-engine and to be used to control the exhaust and muffle or deaden the noise of the vibrations.

In the drawings, Figure 1 is a section through the muffler. Fig. 2 is a perspective of the outlet end.

1 indicates a pipe adapted to be secured to the exhaust-pipe of the engine. A portion of this pipe is provided with holes 2 through the walls. This portion of the pipe and another portion of about equal length are surrounded by a shell 3, which is spaced from the pipe 2 and which with its end closures forms an annular chamber around the pipe 2. The chamber is divided into nearly equal parts by a diaphragm 4, which is perforated and through which the products of combustion pass from the part 5 of the chamber into the chamber part 6 of the chamber. The terminal of the pipe 1 is inserted into the opening of an elbow-pipe 7, preferably made integral with the end closure 8 of the main chamber, and this is closed by a gate or door 9, pivoted to swing over the opening and normally held closed by a spring 10 and provided with a draft-rod 16. The door is pivoted to a lug 12 on the casing of the elbow 7 and turns on this pivot. When the door is

open, there is free escape for the gases of combustion, which pass through the pipe and the elbow and are not muffled.

Through the end 8 of the chamber 6 are inserted pipes 13 and 14, which extend into the chamber 6 for a distance and are provided with perforations which coact in the end opening of the pipe as inlet-openings, through which the gases enter from the chamber 6, and after entering the gases pass through and escape from the open ends of the pipes 13, which are preferably turned downward when the muffler is used on motor-vehicles, for which it is mainly intended.

When the device is to be used for muffling purposes, the gate 9 is closed and the products of combustion are then forced to travel through the openings 2 into the chamber 5, thence through the openings 4 in the diaphragm 4, and thence through the openings into the tubes 13 and 14, from the free ends of which they finally escape.

What I claim is—

1. In a muffler, the combination of an inclosed casing, a pipe running through said casing adapted at one end to receive the exhaust from an engine, the other end of said pipe opening from said casing, perforations through said pipe into said casing, an outlet from said casing, and a removable closure for the end of said pipe opening from said casing.

2. In a muffler, the combination of an inclosed casing, a pipe running through said casing adapted at one end to receive the exhaust from an engine, the other end of said pipe opening from said casing, a foraminous diaphragm surrounding said pipe and dividing said casing into two compartments, perforations through said pipe into the compartment nearer the receiving end of said pipe, an outlet from the other of said compartments, and a removable closure for the end of said pipe opening from said casing.

3. The combination of an inclosed casing,
a pipe running through said casing adapted
at one end to receive the exhaust from an
engine, the other end of said pipe opening
5 from said casing, perforations from said pipe
into said casing, an outlet from said casing,
an elbow at the end of said pipe opening
from said casing forming a continuation of

said pipe, and a removable closure for the
passage through said elbow.

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In testimony whereof I sign this specifica-
tion in the presence of two witnesses.

CHARLES H. BLOMSTROM.

Witnesses:

MAY E. KOTT,

CHARLES F. BURTON.