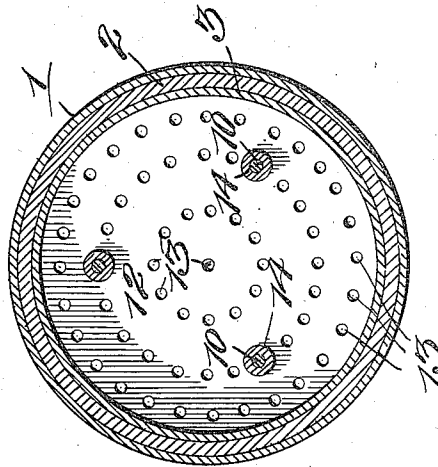
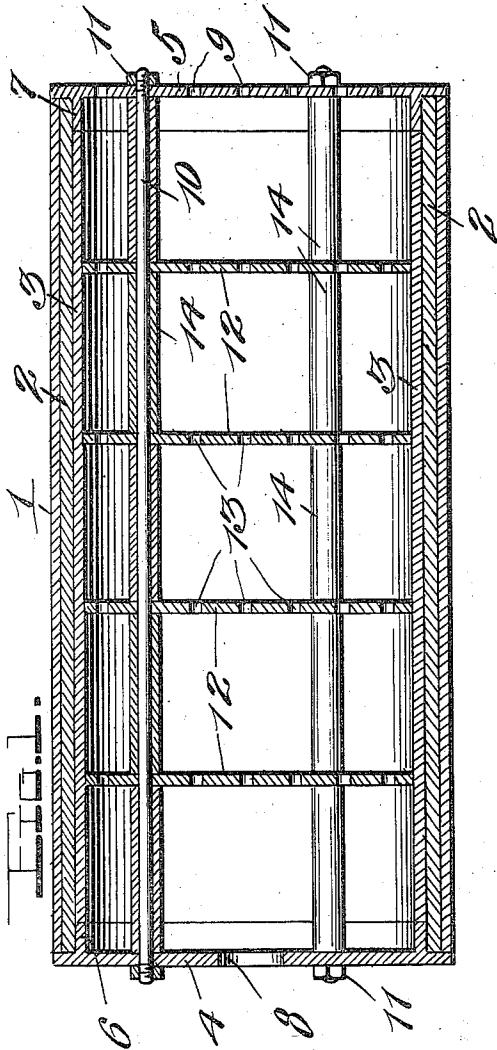


C. RED.
MUFFLER.

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1,006,595.

Patented Oct. 24, 1911.



Witnesses

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UNITED STATES PATENT OFFICE.

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MUFFLER.

1,006,595.

Specification of Letters Patent.

Patented Oct. 24, 1911.

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To all whom it may concern:

Be it known that I, CHARLES RED, a citizen of the United States, residing at Perryville, in the county of Perry and State of Missouri, have invented certain new and useful Improvements in Mufflers, of which the following is a specification, reference being had to the accompanying drawings.

This invention is an improved muffler for muffling the sound of the exhaust from gasoline and other internal combustion engines, the invention consisting in the construction, combination and arrangement of devices hereinafter described and claimed.

In the accompanying drawings—Figure 1 is a vertical longitudinal sectional view of a muffler constructed in accordance with my invention. Fig. 2 is a transverse sectional view of the same.

In the embodiment of my invention I provide an outer casing 1 which is here shown as cylindrical in form, open at its ends and is lined on its inner side with asbestos, the casing being indicated at 1, and the asbestos lining at 2. An inner casing 3 which corresponds in shape with the outer casing, but is somewhat less in length and diameter is placed in the outer casing, the asbestos lining being between the inner and outer casings. At opposite ends of the muffler are heads 4, 5 each of which is provided with an inturned annular flange, the said flanges being respectively indicated at 6 and 7, and fitting in the ends of the outer casing so as to cause the said heads to close the same. The head 4 at the intake end of the muffler is provided with an opening 8 to which the exhaust pipe of the engine is connected so that the exhaust is discharged from the engine into the muffler. The head 5 is perforated throughout substantially its entire extent, the perforations being indicated at 9. The said heads 4, 5 are connected together by bolt rods 10 which extend through the said heads and through the casing or body of the muffler, the said bolt rods being provided with nuts 11, screwed thereon, which bear on the outer sides and hold the latter in place in the ends of the casing or body.

I also provide a series of perforated disks 12 which are disposed within and extend across the inner casing. These disks are perforated as at 13, the bolt rods 10 extend therethrough, and the said disks are spaced apart and are held in the required spaced relation by spacer sleeves 14, which are placed on the bolt rods.

It will be understood from the foregoing that the heads and disks or diaphragms divide the body of the muffler into a series of chambers 15 which communicate with one another through the perforations in the disks or diaphragms. The exhaust engine passes from chamber to chamber of the muffler through the perforations in the disks and finally from the muffler through the perforations in the head 5, and is muffled by the action of the said chambers and the perforated disks or diaphragms.

I claim:—

The herein described muffler comprising an inner casing and an outer casing open at their ends, the inner casing being shorter than the outer casing, packing material co-extensive in length with the outer casing and between the same and the inner casing, the ends of the inner casing being spaced from those of the outer casing and packing material, a series of perforated disks spaced apart and disposed in the inner casing, heads bearing against the ends of the outer casing and packing and having flanges corresponding in diameter with and bearing against the ends of the inner casing and also bearing against the inner surfaces of the ends of the packing material, one of said heads having an exhaust inlet opening and the other being provided with a series of perforations, bolt rods extending through the heads and the perforated disks, and spacer sleeves on the bolt rods serving to space the disks apart and to also space them from the heads.

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

CHARLES RED.

Witnesses:

VES. E. PANYER,
CHAS. A. SOPER.