

No. 659,834.

Patented Oct. 16, 1900.

H. C. THAMSEN.  
MUFFLER.

(Application filed Apr. 17, 1900.)

(No Model.)

Fig. 1.

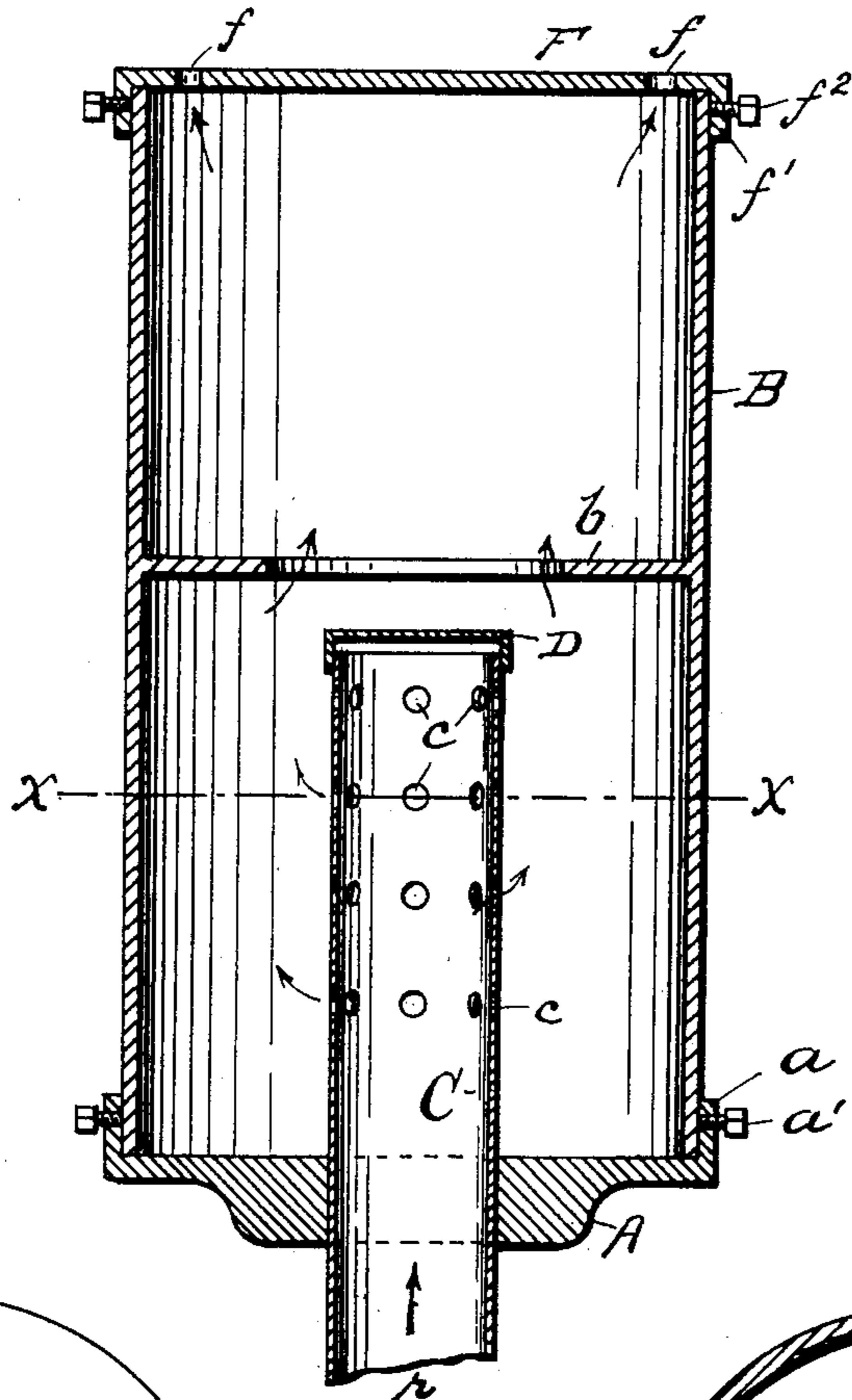


Fig. 2.

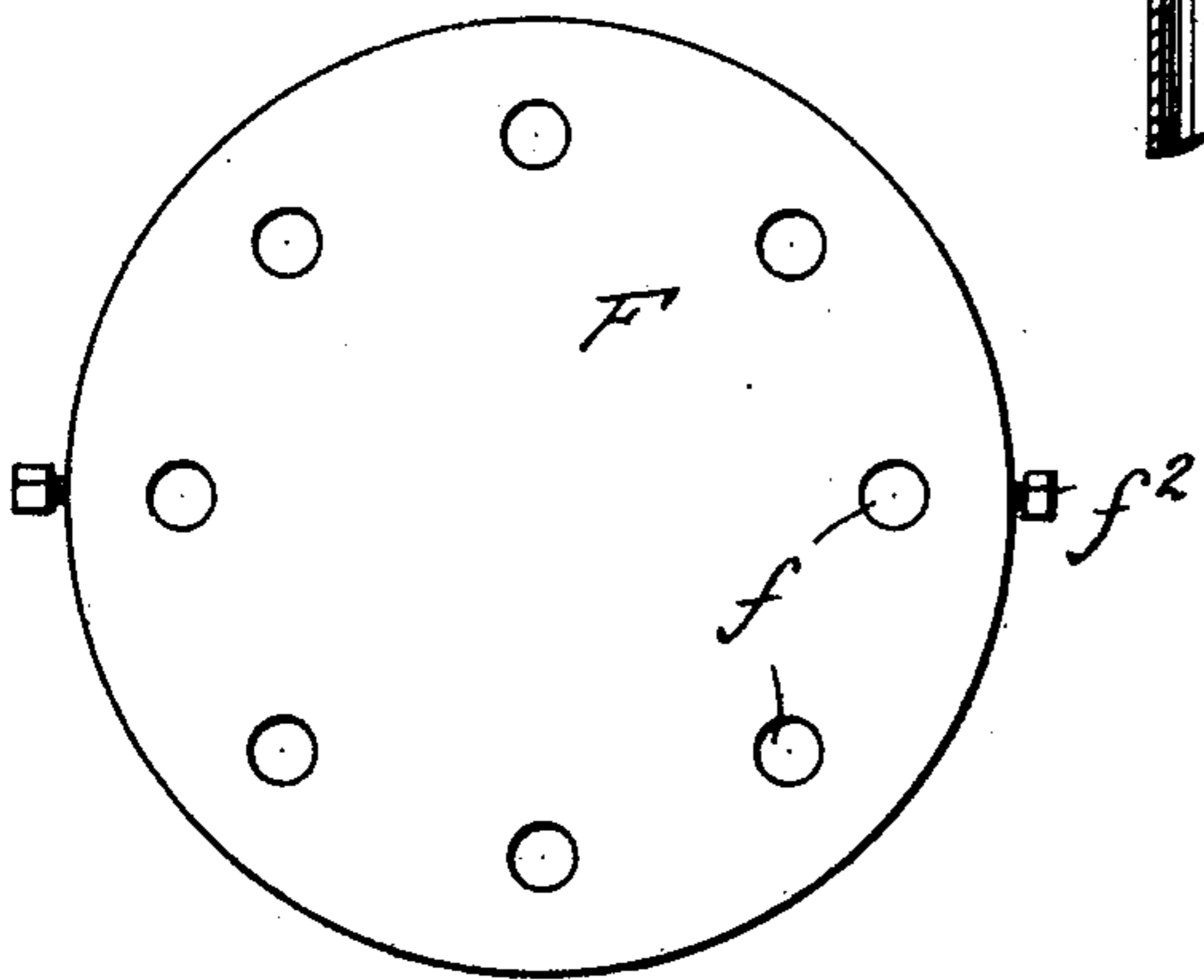
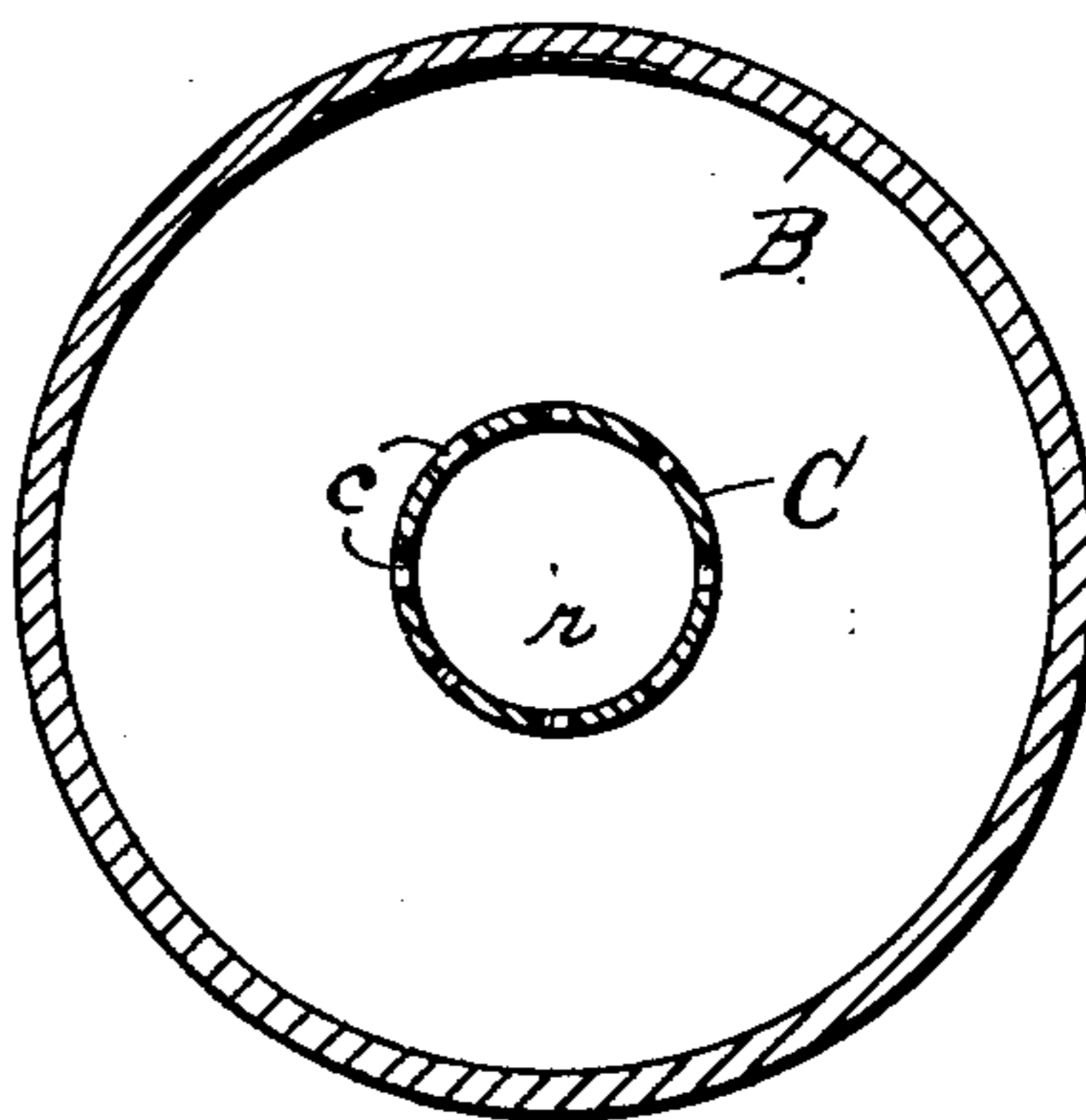


Fig. 3.



Witnesses  
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By Attorney *E. J. Kelly*

# UNITED STATES PATENT OFFICE.

HARRY C. THAMSEN, OF HAMBURG, PENNSYLVANIA, ASSIGNOR OF TWO-THIRDS TO ALEXANDER MURDOCH, OF SAME PLACE, AND ADAM H. LEADER, OF READING, PENNSYLVANIA.

## MUFFLER.

SPECIFICATION forming part of Letters Patent No. 659,834, dated October 16, 1900.

Application filed April 17, 1900. Serial No. 13,198. (No model.)

*To all whom it may concern:*

Be it known that I, HARRY C. THAMSEN, a subject of the Emperor of Germany, residing at Hamburg, in the county of Berks and State of Pennsylvania, have invented certain new and useful Improvements in Mufflers; and I do hereby 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 appertains to make and use the same.

This invention relates to improvements in mufflers, adapted more particularly to gas or gasoline engines.

The object is to muffle the exhaust as much as possible without interfering therewith or causing back pressure on the piston.

The invention is fully described in the following specification and clearly illustrated in the accompanying drawings, in which—

Figure 1 is a vertical sectional view of my muffler. Fig. 2 is a plan view, and Fig. 3 is a cross-sectional view on line X X of Fig. 1.

The base A is formed with a flange a, in which the casing B rests and is secured by means of a set-screw a'. The exhaust-pipe C passes upward through the base and about half-way into the casing B. This pipe C is formed with a series of openings or perforations c, the total of which will equal the diameter of the inlet r. A closed cap D is secured to the top of this pipe C. The casing, like

the base and cover, is circular in cross-section and is formed with an internal flange b, arranged a short distance above the point reached by the top of the pipe C. A cover F, having a series of perforations f therein and formed with a flange f', fits over the top of the casing and is secured thereto by means of a set-screw f'. It will be seen that with this arrangement, the exhaust following the direction of the arrows in Fig. 1, the direct current will be broken and the exhaust so effectively muffled as to be scarcely noticeable.

Having thus fully described my invention and its use, what I claim, and desire to secure by Letters Patent, is—

In a muffler, a perforated exhaust-pipe C inclosed in a tubular, metal casing B, said casing secured in a closed base and having an internal flange b located immediately above the top of the pipe C, and a removable cover F having perforations equal in area to the area of the perforations in the exhaust-pipe C, all arranged substantially as and for the purpose set forth.

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

HARRY C. THAMSEN.

Witnesses:

ED. A. KELLY,  
E. P. VAN REED.