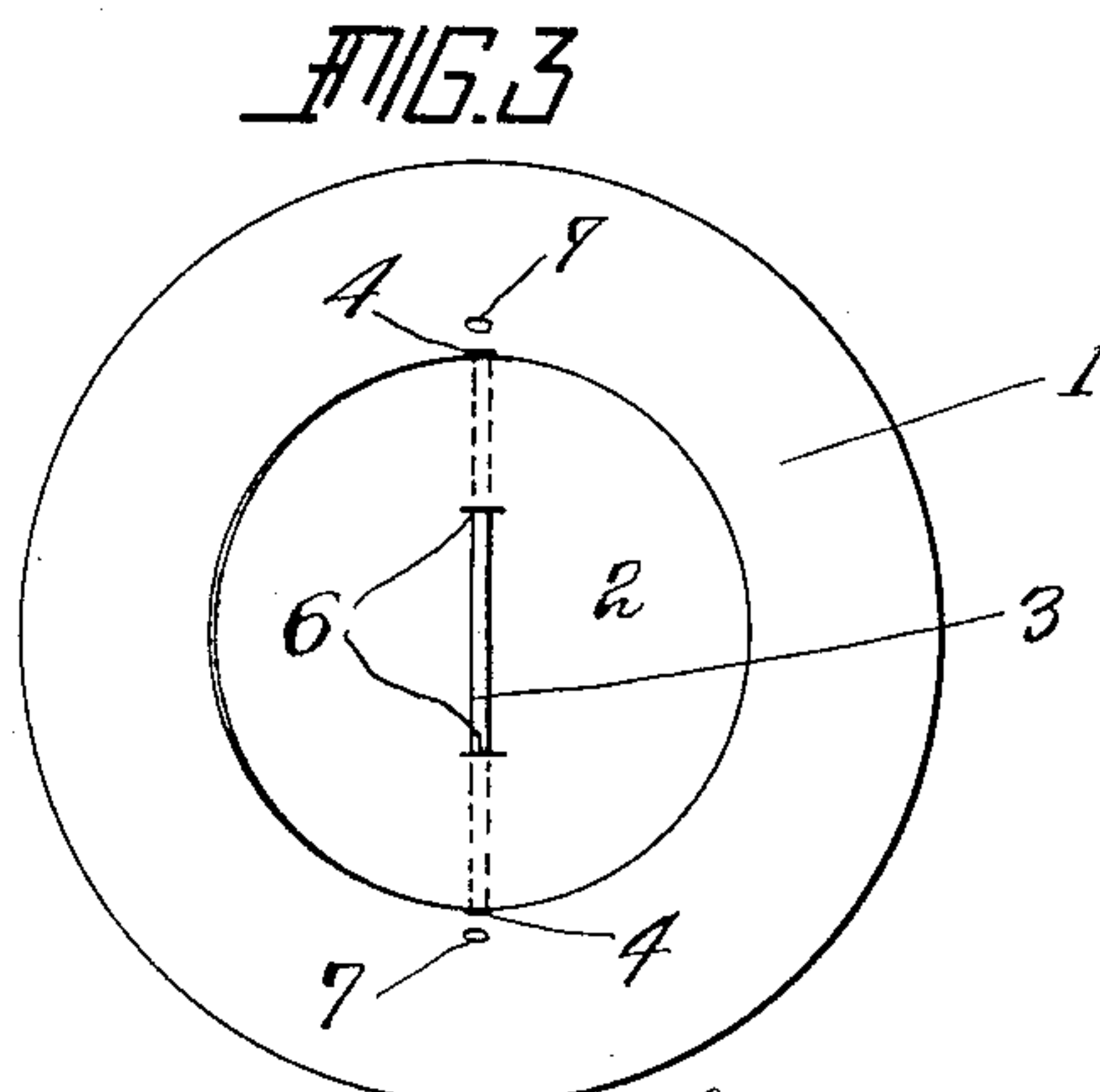
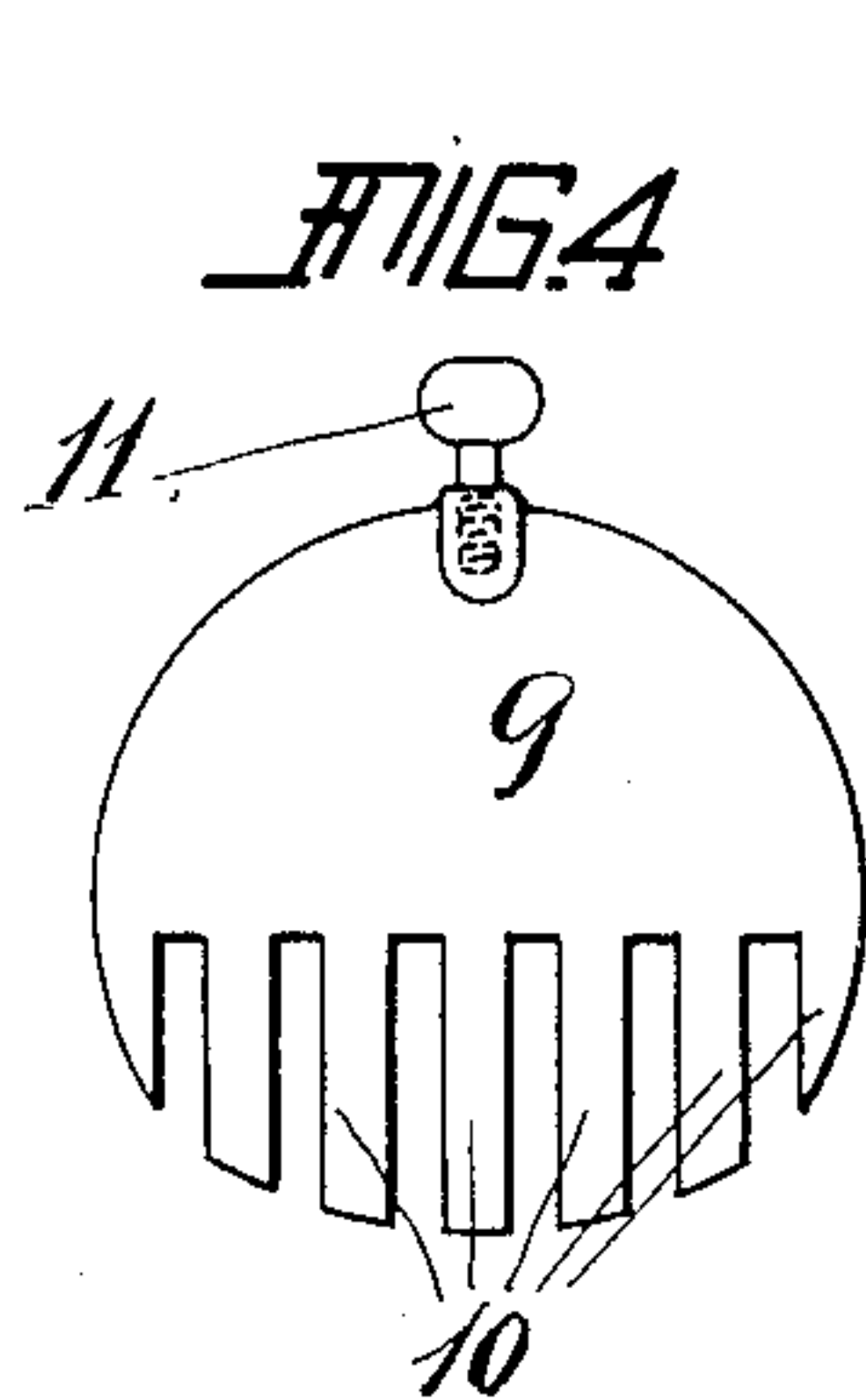
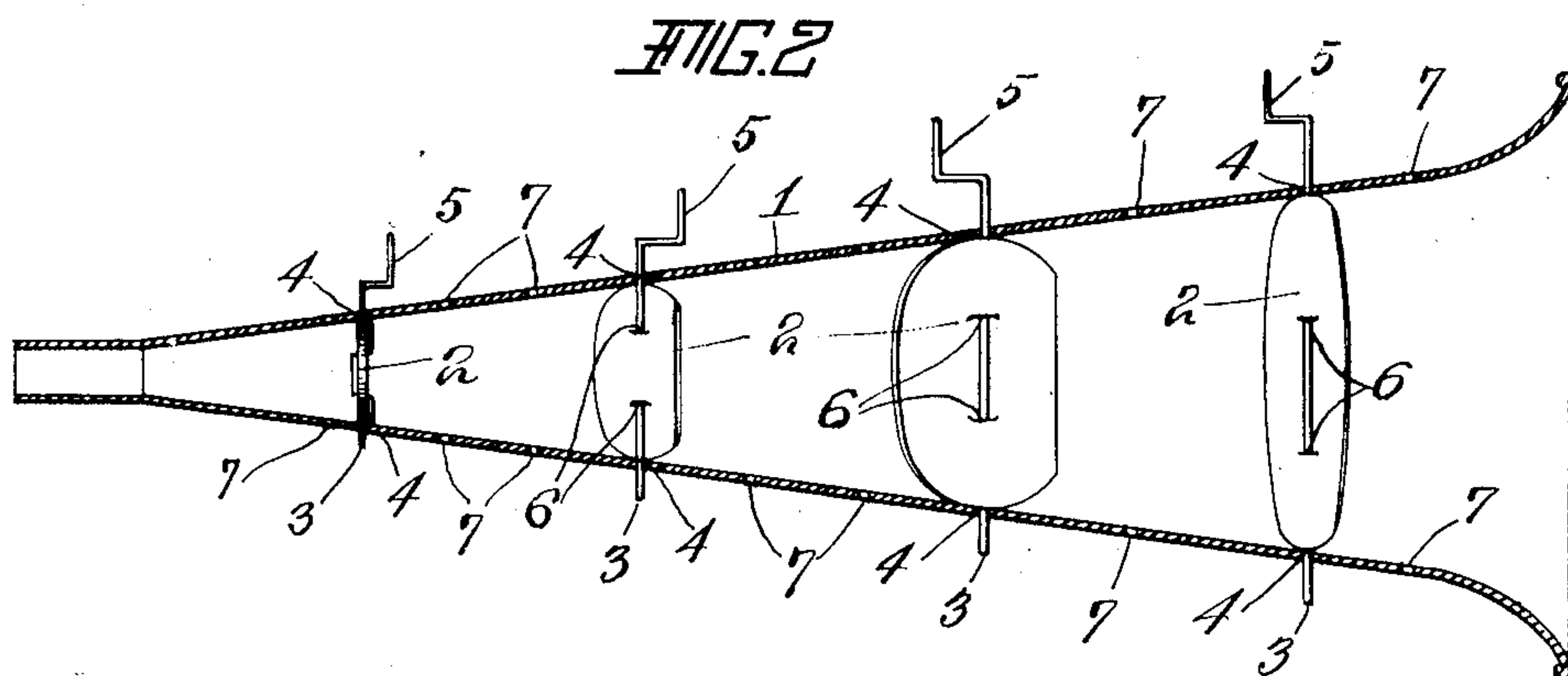
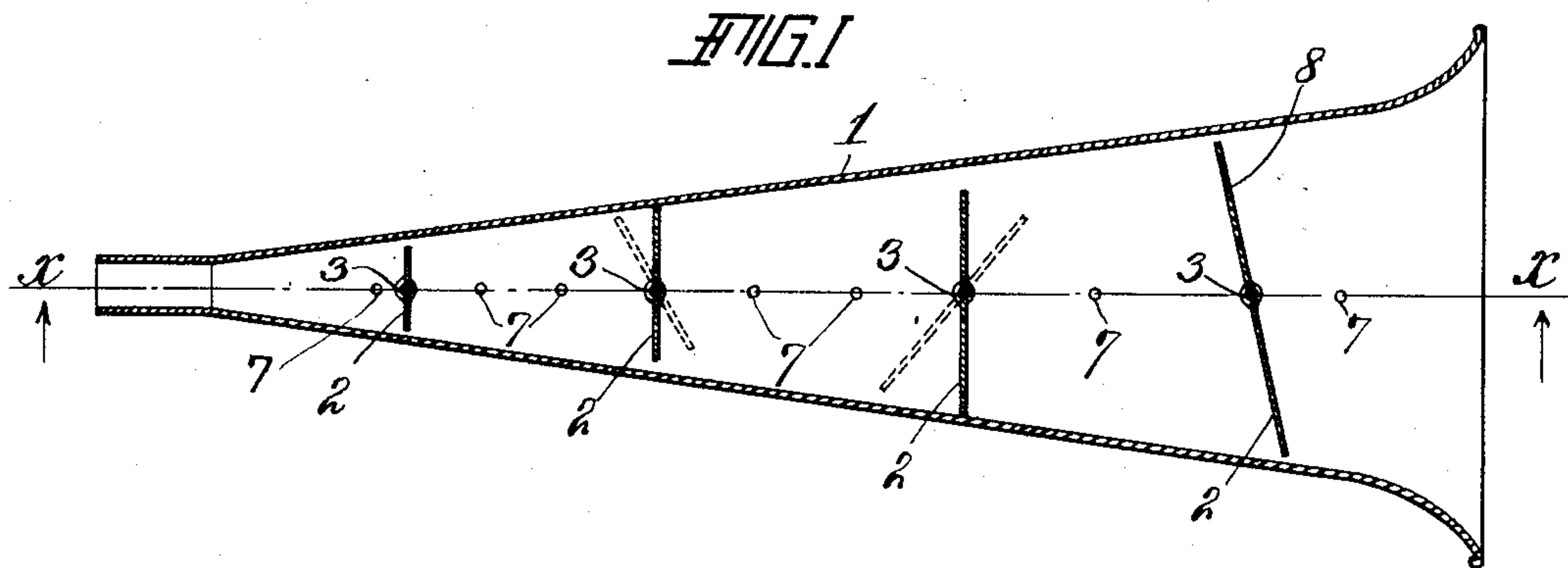


No. 858,763.

PATENTED JULY 2, 1907.

H. B. SEAMAN.
PHONOGRAPH HORN.

APPLICATION FILED FEB. 17, 1906. RENEWED JUNE 3, 1907.



Witnesses
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UNITED STATES PATENT OFFICE.

HENRY B. SEAMAN, OF NEW BRIGHTON, NEW YORK.

PHONOGRAPH-HORN.

No. 858,763.

Specification of Letters Patent.

Patented July 2, 1907.

Application filed February 17, 1906. Renewed June 3, 1907. Serial No. 377,047.

To all whom it may concern:

Be it known that I, HENRY B. SEAMAN, of New Brighton, Staten Island, in the county of Richmond and State of New York, have invented certain Improvements in Phonograph-Horns, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings designating like parts.

This invention relates to phonograph horns and has for its object the provision of a horn which shall be free from the raucous noises characteristic of such horns as constructed at the present day, it being understood that I contemplate the utilization of my invention in any field to which it may be adapted by the nature of my improvements.

Many efforts have been made to do away with the detrimental quality above mentioned, the most recent attempt to accomplish this being what is known as the "Morning Glory" horn, but I have discovered that the raucous quality proceeds not so much from the shape of the horn as from the uninterrupted reflection of the sounds from the sides of the horn, which in the human throat is prevented by the tonsils, teeth, etc.

Accordingly I have devised baffling means to interrupt the sound waves in their progress from the reproducing device through a phonograph horn, and these means may take, conveniently, the form of a plate or gate of which I prefer to provide several within the horn, arranging them also, preferably, so that they will be adjustable at the will of the operator. By this means I provide a tortuous passage for the sound waves, and am enabled to modify the quality of the tone transmitted by the horn, and also to enable its volume to be controlled by the operator readily.

The various features of my invention will be illustrated and described fully in the accompanying drawings and specification and set forth in the claims.

In the drawings, Figure 1 is a longitudinal sectional view of a phonograph horn, in the construction of which my improvements have been embodied; Fig. 2 is a vertical longitudinal section on the line $x-x$, Fig. 1; Fig. 3 is a front elevation looking from right to left on Fig. 2; and Fig. 4 shows a modified form of baffle member.

In the embodiment of my invention selected for illustration and description as a convenient form to enable ready and complete understanding of my improvements, the part designated by the reference numeral 1 is a phonograph horn which may be, and is illustrated as, of usual form in its general construction, and may be of brass or other metal although un-

der certain conditions I may prefer to construct the same of pasteboard, felt, or other non-metallic material.

In accordance with my invention I provide baffling means 2 which in Fig. 1 take the form of a series of gates mounted on wire spindles 3 which project through bearings 4 in the sides of the horn, the spindles being provided with handles 5 by bending or otherwise. As the spindles pass through holes 6 in the gates, which may be of metal or non-metallic material as found most suitable under given conditions, the spindles may readily be withdrawn and reinstated through holes 7 provided in the sides of the horn to enable adjustment of the relative position of the gates, as it will not always be the case that the gates need be of the exact diameter of the interior of the horn at the region where each gate is placed.

In Fig. 2 I have shown the gates as adjusted at different angles to each other, in their dotted line position, but it will be observed that the gates may be arranged in parallelism and that the degree of their angle to the longitudinal axis of the horn may be varied as desired, and other changes in arrangement and construction may be adopted as found desirable. Preferably the gates will not occupy the entire diameter of the horn but a segment will be cut off as shown in Figs. 1 and 2 so that the sound, even if the gates stand across the horn may find its way out in a tortuous manner, and modified form, in accordance with my invention. One gate as that shown at 8 may, if desired, occupy the entire diameter of the horn when closed, to shut off the sound substantially entirely.

In Fig. 4 a baffle member 9 of modified construction, is shown, having teeth 10, and a screw turn handle 11, the teeth acting as does the human teeth to modify the character of the sound emitted so as to do away with "the horn tone". The gates may all be constructed in this modified form.

Having thus fully illustrated and described my invention, it will be understood that I do not limit myself to the specific construction or material described, nor in general otherwise than as set forth in the claims.

What I claim and desire to secure by Letters Patent is:—

1. The combination with a phonograph trumpet of means to form a tortuous passage within said trumpet for the sound waves, to diminish the normal reflection of said waves from the walls of said trumpet, substantially as described.

2. A horn for phonographs and the like, said horn having a toothed baffle member, substantially as described.

3. A horn for phonographs and the like, said horn hav-

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ing a plurality of baffle members arranged at different angles to the longitudinal axis of said horn, to form a tortuous passage for the sound waves, substantially as described.

5 4. A horn for phonographs and the like, said horn having a plurality of internal baffle members, arranged to form a tortuous passage for the sound waves, substantially as described.

10 5. A horn for phonographs and the like, said horn having a plurality of internal baffle members, alternately shaped on opposite sides to form a tortuous sound passage in which the normal reflection of sound waves from the walls of the horn will be diminished, and the quality

of the sound emitted will be improved by blending said sound waves.

6. As an article of manufacture, a toothed baffle member to be inserted within a horn for phonographs or the like, substantially as described.

Signed at New York in the county of New York and State of New York this fifteenth day of February A. D. 20 1906.

HENRY B. SEAMAN.

Witnesses:

ALEXANDER C. PROUDFIT,
HARRY H. WALTON.